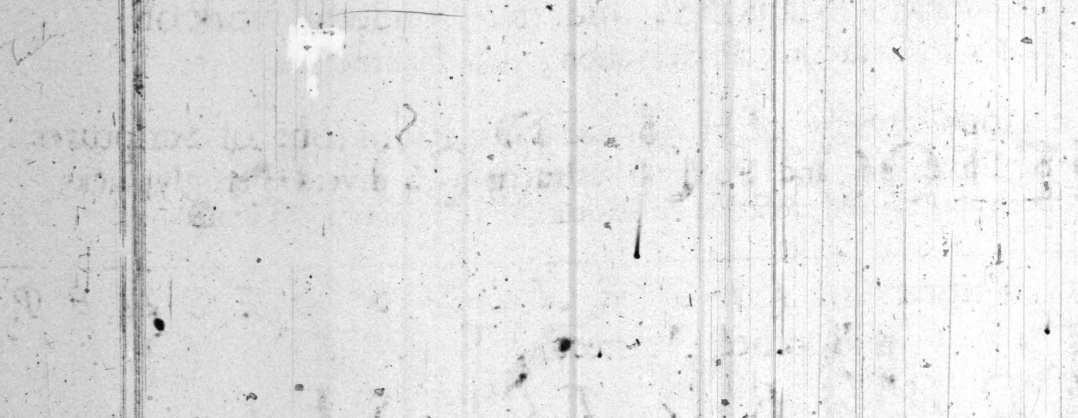
THE
HISTORY
OF
Four-footed Beaſts,
SERPENTS,
AND
INSECTS.



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THE HISTORY OF Four-footed Beaſts AND SERPENTS:

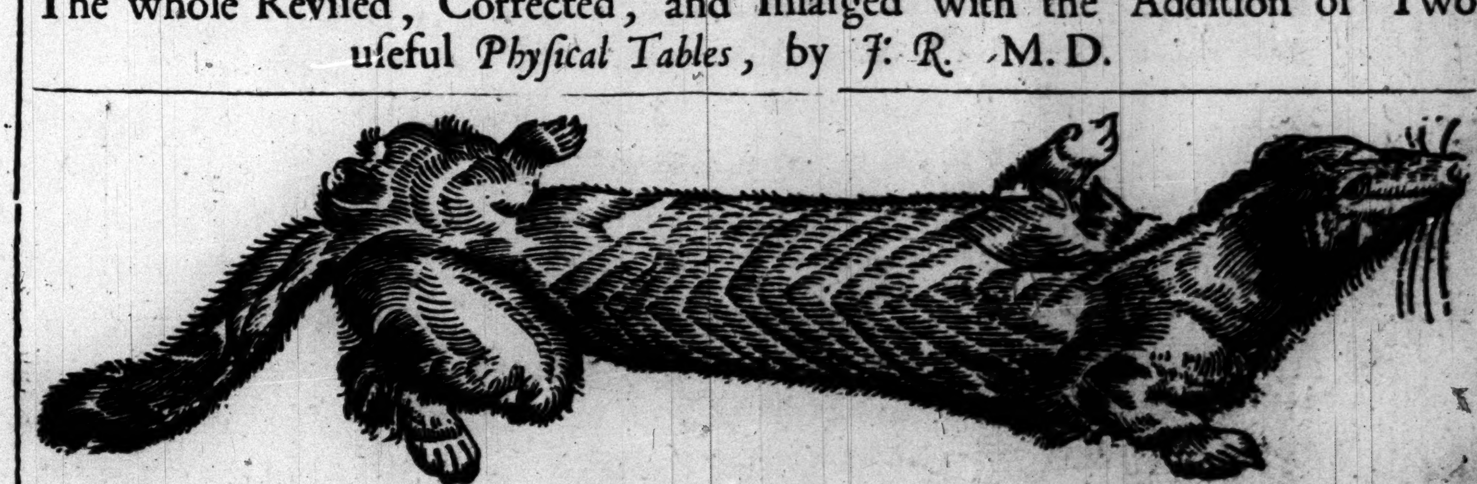
Deſcribing at Large
Their True and Lively *Figure*, their ſeveral *Names*, *Conditions*,
Kinds, *Virtues* (both Natural and Medicinal) *Countries* of their *Breed*,
their *Love* and *Hatred* to Mankind, and the wonderful work of
God in their Creation, Preſervation, and Deſtruction.

Interwoven with curious variety of Hiſtorical Narrations out of Scriptures,
Fathers, Philoſophers, Phyſicians, and Poets: Illuſtrated with divers Hieroglyphicks
and Emblems, &c. both pleaſant and profitable for Students in all Faculties and Profeſſions.

Collected out of the Writings of *CONRADUS GESNER*
and other Authors,
By *EDWARD TOPSEL.*

Whereunto is now Added,
The Theater of Inſects; or, Leſſer living Creatures:
As *Bees*, *Flies*, *Caterpillars*, *Spiders*, *Worms*, &c. A moſt
Elaborate Work: By *T. MUFFET*, Dr. of Phyſick.

The whole Reviſed, Corrected, and Inlarged with the Addition of Two
uſeful *Phyſical Tables*, by *J. R.* M.D.



LONDON:
Printed by *E. Cotes*, for *G. Sawbridge* at the Bible on *Ludgate-hil*, *T. Williams* at
the Bible in *Little-Britain*, and *T. Johnſon*, at the Key in *Pauls Church-yard*. MDCLVIII.

TO THE
RIGHT HONOURABLE
THE
Lord Marqueſſe
OF
DORCHESTER,
Earl of *KINGSTONE*,
Vicount *NEWARKE*, &c.

My very Noble LORD,

Your Lordſhip well knows that Honour attends upon Virtue, as the ſhadow doth upon the ſubſtance; there is ſuch a magnetick force in Goodneſs, that it draws the hearts of men after it. The world obſerves that Your Honour is a great Lover of the works of Learned Writers, which is an infallible argument of an excellent mind reſiding in You. Wherefore I here humbly offer unto Your Noble Patronage the moſt Famous and Incomparable Hiſtory of CONRADUS GESNER, *a great Philoſopher and Phyſitian, who by his vaſt expences, and indefatigable pains, Collected and Digeſted into two Volums, what ever he found ſcattered here and there in almoſt infinite Authors, concerning* Fourfooted-Beaſts and Serpents, *adding alſo what he could poſsibly attain to by his own experience, and correſpondence held with other famous* Scholars *every where. After him* Mr. Edward Topſel *a Learned Divine, Reviſed and Augmented the ſame Hiſtory; as it is not altogether ſo difficult to add ſomething to what is firſt begun, and to build upon ſuch a foundation which was before ſo artificially laid. He hath deſerved well of our* Engliſh Nation *in ſo doing; and the more, that he doth with ſo much modeſty attribute the praiſe of the whole work to the Maſter-workman to whom it was chiefly due. The ſame* Geſner, *after* Mr. Edward Wotton *had begun, undertook to compoſe the Hiſtory of* Inſects; *which as it is a buſineſs of more curioſity and difficulty to write exactly of; ſo all things conſidered, they ſerve as much to ſet forth the Wiſdom and Power of God as the greateſt Creatures he hath made, and are as beneficial to Mankind, not only for dainty Food, but for the many Phyſical uſes that ariſe from them.* John *Baptiſt fed upon Locuſts and* *wilde Honey, and we read that our Saviour eat a piece of a Honey comb. Theſe little* Inſects *are not ſo contemptible as the World generally thinks they are, for they can do as much by their multitudes, as the other can by their magnitude, when as one Hornet ſhall be able ſuddenly to kill a Horſe, and Gnats, Ants and Waſps to bid reſiſtance to Bears, Lions and Elephants, and to depopulate whole Countries. The Frogs, Locuſts, and Lice, were none of the leaſt Judgements in the Land of* Egypt. *Mr.* Thomas Pennius, *another Phyſitian, lighting his Candle by the former lights, ſucceeded them in this great undertaking. But all theſe vigilant and painful Men never could bring it to perfection, being every one of them prevented by death. And indeed, things of deep ſearch, and high concernment, are very ſeldom begun and ended by the ſame perſons.* Hippocrates *gives the reaſon for it, that Art is long, Life ſhort, Experience difficult, occaſion precipitate, Judgement uncertain. I may ſay farther, which he alſo comprehends in the cloſe of that Aphoriſm, that all muſt perform their ſeveral offices: which is not often done, but ingenious men frequently labour under the want of means, and find ſmall encouragement to proceed in their great deſigns, eſpecially in this latter age of the World.* Geſner *makes a ſad complaint in behalf of himſelf, and* Topſel *doth the like, and ſo do all the reſt who ſpent their Eſtates, and waſted their Spirits for the common good. Which is ſufficient proof to convince many rich men of blindneſs and ingratitude, and confirms that truth the Poet ſpeaks;*

Haud facilè emerguunt, quorum virtutibus obſtat
Res anguſta domi ——— ———

Good and well meaning men cannot proceed,
Virtue is cruſht by want, oppreſt by need.

After the death of the forementioned four Worthies of their times, Mr. Thomas Muffet *a noted* Engliſh *Phyſitian undertook the ſame taſk, and compleated it; whoſe Encomium is excellently well penned by the late Honourable Doctor of Phyſick* Sir Theodore Mayerne, *in his Epiſtle to Doctor* William Paddy *of famous memory, premiſed to this Book; wherein to his own immortal praiſe, he hath ſo Anatomically diſſected many of the chiefeſt* Inſects, *even to admiration, that he hath let the World underſtand by it, that he was a deep Philoſopher, and a moſt accurate ſearcher into the ſecrets of Nature, and worthy of thoſe places of Honour he enjoyed in Great Princes Courts. This large Hiſtory is not, nor could poſſibly be the production of one Age; both able Divines, and Phyſitians contributed what they had, and employed their Talents, and greateſt ſtudies, for many years in their ſeverall generations, to bring it forth; whereby it may appear how neceſſary this Work is for the ſouls and bodies of Men, to teach them to know the Wiſdom and Omnipotence of God in the Creation of theſe Creatures, and Goodneſs to beſtow them upon Man, both for profit and delight; and though many of them be Dangerous and Venomous, yet they were not ſo when God firſt made them. For the* Wiſeman *ſaith,* That God made not death, neither takes he pleaſure in the deſtruction of the living, for he created all things that they mighe have their being, and the Generations of the World were healthful, and there was no poiſon of deſtruction in them, no Kingdom of death upon the earth, but ungodly men by their wicked works and words, called it to them. *This Book will plentifully furniſh us with Remedies againſt moſt of theſe inconveniences, which is no ſmall occaſion to put us in mind how much we ſtand obliged to the memories of the learned Authours of it; who ſpared no coſt nor pains that they might prove beneficial to the then preſent, and to ſucceeding Ages. And the ſame reaſon is very ſtrong in behalf of thoſe who now have been at this vaſt charge to Reprint and to perfect the ſame, that it never ſhould be loſt by time or caſualties, which conſume all things; and to ſupply the whole Work with a double Phyſical Index, to eaſe the Readers labour, that he might not wander up and down, and loſe himſelf in this great wilderneſs of* Beaſts and Inſects, *ſearching after that he ſtands in need of, but may in an inſtant be provided with all thoſe known remedies theſe ſeveral Creatures can afford him. Should ſuch a Fabrique as this decay and come to ruine, the dammage were unſpeakable and irreparable; the* Mauſolean Sepulchre, *the* Coloſſus *of* Rhodes, *or the* Pyramids *of* Egypt *might ſooner be renewed and built again. Wherefore Men are bound in conſcience, by the Laws of God, of Nature, and of Nations, to conſider of the great Expence and Pains now taken in it, and to promote the Work to the beſt advantage of the preſent undertakers for the publick good, who have now brought it to this perfection, that they may ſay of it, what* Ovid *did of his* Metamorphoſis;

Jamque opus exegi, quod nec Jovis ira, nec ignis,
Nec poterit ferrum, nec edax abolere vetuſtas.

The Work is ended, which can envies fume,
Nor Sword, nor Fire, nor waſting time conſume.

Never was there ſo compleate a Hiſtory of the Creatures as this is ſince the daies of Solomon, *who writ the ſtory of Beaſts and Creeping things: and indeed it requires a Kingly Treaſure and Underſtanding to accompliſh it. And* Petrus Gillius *writes, that in former Ages, all the Hiſtories of Creatures were compiled by Kings, or Dedicated to them; who are beſt able to bear the charge of it, and moſt fit be honoured with it. What would the World now give for that Book of* Solomons, *which by the negligence of ungrateful men and length of time is utterly loſt? How highly then ought we to eſteem of this Hiſtory of* Geſner *and* Muffet, *which is inferiour to none but that? For what* Ariſtotle *ſet forth upon this ſubject at the appointment of* Alexander *the Great, and for which he received from him 400 Talents as a Kingly reward, is all comprehended in this, with the addition of many hundreds more that have travelled in the ſame way.* Orpheus, *whom the Poets ſo much magnifie for drawing the Beaſts after him, could do no more with all his melodious harmony, then theſe famous and ingenious Men have done. And becauſe I cannot but think, what the Poets fancied concerning him, was but an Hieroglyphical repreſentation (according to the dim light they had) of all the Creatures coming to* Noah *into the Ark, this Hiſtory ſeems to me to be like another Ark of* Noah, *wherein the ſeveral kinds of beaſts are once again met together, for their better preſervation in the underſtanding of Man; & however there were multitudes of Birds in the Ark which are not here (it may be becauſe* Aldrovandus *and others have* *written largely to that purpoſe) yet here are abundance of Inſects that never were in* Noahs *Ark, and whereof we never had, or we can find extant, any compleate Hiſtory untill this was made; which is like to another Paradiſe, where the Beaſts, as they were brought to* Adam, *are again deſcribed by their Natures, and named in moſt Languages; which ſerves to make ſome reparation for the great loſs of that excellent knowledge of the Creature, which our firſt Parents brought upon their poſterity when they fell from God. We read in the* 10th. *of the* Acts, *that when a veſſel was let down from heaven, wherein there were all manner of Fourfooted-Beaſts and Creeping things, that* St. Peter *wondered at it: who then can chooſe but admire to ſee ſo many living Creatures that Nature hath divided and ſcattered in Woods, Mountains and Vallies, over the face of the whole earth, to come all together to a general muſter, and to act their ſeveral parts in order upon the ſame Theater? I confeſs there are many Men ſo barbarous, that they make no account of this kind of learning, but think all charge and pains fruitleſs that is imployed this way; ſhewing themſelves herein more unreaſonable and brutiſh then the irrational Beaſts. For next unto Man are theſe Creatures rankt in dignity, and they were ordained by God to live upon the ſame earth, and to be Fellow-commoners with Man; having all the Plants and Vegetables appointed them for their food as well as Man had; and have obtained one priviledge beyond us, in that they were created before Man was; and ever ſince they are obnoxious to the ſame caſualties, and have the ſame coming into the World, and going out that we have;* For that which befals the Sons of Men befals Beaſts, even one thing befals them both, as the one dyeth, ſo dyeth the other; ſo that Man hath no preeminence above the Beaſts. All go unto one place, all are of the duſt, and all return to duſt again: *Eccleſ.* 3. 19, 20. *And the Prophet* David *doubts not to compare Man being in honour, and having no underſtanding, unto the Beaſts that periſh. As for Minerals, they are yet another degree below Beaſts, all the Gold, Jewels, and Diamonds in the World, are not comparable to any one of the meaneſt Creatures that hath within it the breath of life. God hath bountifully beſtowed them all on Man, whom he hath advanced above them all, for food, and raiment, and other neceſſary uſes; alſo for his pleaſure and recreation: and ſo long as we uſe them with Sobriety and Thankfulneſs, we ſhall finde an infinite benefit and advantage by them; but when we prove ungratefull unto God, they become ſo many Inſtruments of his vengeance againſt ſinners, to make up that fourfold Judgement, with the Sword, Famine, and Peſtilence, the Prophet threatens the* Jews *with. I fear to be tedious, therefore I beſeech Your Honour to accept this Hiſtory in good part from him who humbly prayeth for Your Lordſhips temporal and eternal happineſs, and who is*

Your Honours moſt affectionately

humble Servant

JOHN ROWLAND.

To the Reverend and Right Worſhipful *RICHARD NEILE*, D. of Divinity, Dean of *Weſtminſter*, Maſter of the *Savoy*, and Clerk of the King his moſt Excellent Majeſties Cloſet; all felicity Temporal, Spiritual, and Eternal.

THE Library of *Engliſh* Books, and Catalogue of Writers, (Right Worthy and Learned DEAN, my moſt reſpected PATRON) have grown to the height, not only of a juſt number, but almoſt innumerable: and no marvel, for God himſelf hath in all ages preſerved Learning in the next place to Life; for as Life is the Miniſterial Governor and Mover in this World, ſo is Learning the Miniſterial Governor and Mover in Life: As an Interpreter in a ſtrange Countrey is neceſſary for a Traveller that is ignorant of Languages (or elſe he ſhould periſh,) ſo is Knowledge and Learning to us poor Pilgrims in this our Perigrination, out of Paradiſe unto Paradiſe; whereby confuſed BABELS tongues are again reduced to their ſignificant Dialects, not in the builders of BABEL to further and finiſh an earthly Tower, but in the builders of JERUSALEM, to bring them all to their own Countrey *which they ſeek*, and to the deſired reſt of ſouls. *Literæ obſtetrices artium, quarum beneficio ab interitu vindicantur.* As Life is different and divers, according to the Spirit wherein it is ſeated, and by which it is nouriſhed as with a current; ſo alſo is Learning, according to the taſt, uſe, and practiſe of Rules, Canons, and Authors, from whom as from a Fountain it taketh both beginning and encreaſe: even as the ſpirit of a Serpent is much quicker then the ſpirit of an Ox; and the Learning of *Ariſtotle* and *Pliny* more lively and lightſome then the knowledge of other obſcure Philoſophers, unworthy to be named, which either through Envy or *Non-proficiencie* durſt never write. *Si cum hac exceptione detur ſapientia, ut illam incluſam teneam, nec enuntiem, rejiciam. Nullius boni ſine ſocio jucunda eſt poſſeſſio.* And therefore I ſay with *Petrus Bleſen*: *Scientiarum generoſa poſſeſſio in plures diſperſa, non perditur, & diſtributa per partes, minorationis detrimentum non ſentit: ſed eo diuturnius perpetuata ſeneſcit, quo publicata fœcundius ſe diffundit.*

The greateſt men ſtored with all helps of Learning, Nature and Fortune, were the firſt Writers, who as they did excell other men in Poſſeſſions and Worldly dignity, ſo they manifeſted their Virtues and Worth in the edition of excellent parts of knowledge, either for the delight or profit of the World, according to the Poets profeſſion:

Aut prodeſſe volunt, aut delectare Poetæ,
Aut ſimul & jucunda & idonea dicere vitæ.
Omne tulit punctum, qui miſcuit utile dulci,
Lectorem delectando, pariterque monendo.

Yet now of late daies this cuſtom hath been almoſt diſcontinued to the infinite prejudice of ſacred inviolable Learning and Science, for *Turpis ſæpe fama datur minoribus*, (as *Auſonius* wrote in his time) for indeed the reaſon is pregnant:

Haud facile emergunt, quorum virtutibus obſtat
Res anguſta domi.——————

But yet the great Rector and Chancellor of all the Academies in the World *Jeſus Chriſt, in whom are hid all the treaſures of wiſdom and knowledge*, the Maſter of that Colledge wherein he was but a Servant or Steward, *that was learned in all the learning of the* Egyptians, (I mean *Moſes*) the firſt writer, the firſt Author, the firſt commender of knowledge, and the firſt ordainer of a lawful Common-wealth, and Ruler of Church and State, hath not left our age without ſome monuments of great Princes, Earls, Lords, Knights, for the ornament and honour of Learning, who for general and particular cauſes and benefits have added their Names to the ſociety of Writers, and divulged their works in Print, which are likely to be remembred till the Worlds end. Such are our moſt Temperate, Juſt, Wiſe, and Learned King and Soveraign. The Right Noble, and Honourable Earl of *Surry*, long ago departed out of this earthly *Horizon*. The now living Earls of *Dorſet*, *Northampton*, *Salisbury*; and many Knights, Sir *Philip Sidney*, Sir *George Moore*, Sir *Richard Bartlet*, Sir *Francis Haſtings*, and others. But of *Aarons*, and ſuch as ſit at the Helme of the Church, or are worthily advanced for their knowledge in Learning and State, I mean both Biſhops and Doctors, almoſt innumerable, of all whom I can ſay no more, if I were worthy to ſay any thing, then apply unto them particularly that which was ſaid of one of the greateſt Scholars and Divines that ever *England* had: Biſh. Juel.

——————*Dic obſecro ſancta*
Poſteritas, nec enim mihi fas eſt dicere: tantum
De tantis tacitum, aut tantos audire juvabit.

Then why ſhould I preſume, being every way the leaſt and meaneſt of all other, uow the third time to publiſh any part of my conceived ſtudies for the age preſent and ſucceeding, and ſo to have my Name inrolled amongſt the benefactors and Authors of Learning?

——————*Non omnia grandior ætas*
Quæ fugiamus habet; ſeris venit uſus ab annis.

Alas Sir, I have never abounded in any thing, except want and labour, and I thank God that one of theſe hath been prepared to feed the other, therefore I will not ſtand upon any mans objections, who like Horſes as it is in the Fable being led empty, well fed, and without burden, do ſcorn the laden Aſſe, adding miſery to his load, till his back was broke, and then was all laid upon the pampred diſdainful Horſe: even ſo theſe proud diſpleaſing ſpirits are eaſed by the labors of us that bear the burthens, and if they content not themſelves with eaſe, but will alſo ſit in the ſeat of the ſcornful, let them remember, that when our backs be broak, they muſt take up the carriage. But pardon me (I beſeech you) if by way of Preface I open my heart unto your Worſhip, who is better able then ten thouſand of the *Momus's*, and more charitably generous in receiving ſuch gifts with the right hand (as theſe are) although they were given with the left; for ſeeing I have choſen you the Patron of this Work, I will briefly declare and open my mind unto you concerning the whole Volum, ſparing any other praiſes of your demerits then thoſe which by *Martial* are aſcribed to *Regulus*, which I will without flattery or fear of the envious thus apply unto you:

Cum ſit Sophia par fama & cura deorum, *[SSS. Trinitatis]*
Ingenio pietas nec minor ipſa tuo.
Ignorat meritis dare munera, qui tibi librum
Et qui maratur [Neiile] Thura dari.

So then leaving theſe perorations, I will endevor to prove unto you that this Work which I now publiſh and divulge unto the world, under the Patronage of your Name, is Divine, and neceſſary for all men to know; True, and therefore without ſlander or ſuſpicious ſcandall to be received ; and that no man ought rather to publiſh this unto the World, then a Divine or Preacher. For the firſt, that the knowledge of Beaſts, like as the knowledge of the other creatures and works of God, is Divine, I ſee no cauſe why any man ſhould doubt thereof, ſeeing that at the firſt they were created and brought to man as we may read *Gen.* 1. 24, 25. and all by the Lord himſelf, ſo that their Life and Creation is Divine in reſpect of their Maker ; their naming Divine, in reſpect that *Adam* out of the plenty of his own divine wiſdom, gave them their ſeveral appellations, as it were out of a fountain of Propheſie, foreſhewing the nature of every kind in one elegant and ſignificant denomination, which to the great loſſe of all his children was taken away, loſt and confounded at *Babel*. When I affirm that the knowledge of Beaſts is Divine, I do mean no other then the right and perfect deſcription of their Names, Figures, and Natures, and this is in the Creator himſelf moſt Divine, and therefore ſuch as is the Fountain, ſuch are the ſtreams iſſuing from the ſame into the minds of men. Now it is moſt clear in *Geneſis* how the Holy Ghoſt remembreth the creation of all living creatures, and the Fourfooted next before the creation of Man, as though they alone were appointed the Uſhers, going immediately before the race of Men. And therefore all the Divines obſerve both in the *Hebrew*, in the *Greek* and *Latin*, that they were created of three ſeveral ſorts or kinds. The firſt *Jumentum*, as Oxen, Horſe, Aſſes and ſuch like, *Quia hominum juvamenta.* The ſecond, *Reptile, quia hominum medicina.* The third, *Beſtia, i. à vaſtando*, for that they were wilde and depopulators of other their aſſociates, riſing alſo againſt Man, after that by his fall he had loſt his firſt image and integrity. Now were it not a knowledge Divine, why ſhould the holy Scriptures relate it, and divide the kinds ? Yea, why ſhould all holy Men take examples from the natures of Beaſt, Birds, *&c.* and apply them to heavenly things, except by the ordinance of God they were both allowed and commanded ſo to doe and therefore in admiration of them the Prophet *David* cryeth out, *Quam magnifica ſunt opera tua Domine! omnia in ſapientia feciſti.* The old *Manichees* among other blaſphemies accuſed the creation of hurtful, venomous, ravening, and deſtroying Beaſts, affirming them to be made by an evil God, and alſo they accuſed the creation of Mice and other unprofitable creatures, becauſe their dulneſs was no kinder to the Lord, but like cruel and covetous Miſers, made no account of thoſe Beaſts, which brought not profit to their purſe. You know (Right Learned Dean) how that grave Father anſwered that calumny, firſt affirming that the ſame thing which ſeemed idle to Men, was profitable to God ; and the ſame that appeared ugly to them, was beautiful to him, *Qui omnibus utitur ad gubernationem univerſi.* He therefore wiſely compareth a fool that knows not the uſe of the creatures in this world, to one ignorant that cometh into the workhouſe of a cunning Man, viewing a number of ſtrange tools, and having no cunning but in an Axe or a Rake, thinketh, that all thoſe rare inventions of a wiſe workman are idle toies: and whilſt thus he thinketh, wandring to and fro, not looking to his feet, ſuddenly falleth into ſome furnace in the ſame Work-houſe, or chance to take up ſome ſharp tool whereby he is wounded, then he alſo thinketh that the ſame are hurtful and dangerous. *Quorum tamen uſum quia novit artifex, inſipientiam ejus irridet, & verba inepta non curans officinam ſuam conſtanter exercet.* But we that are aſhamed to deny the uſe of inſtruments in the ſhops of rare Artiſans, but rather admire their invention, yet are not afraid to condemn in Gods ſtorehouſe ſundry of his creatures, which are rare inventions, although through folly we be wounded or harmed by them, and therefore he concludeth that all Beaſts are either *utilia*, and againſt them we dare not ſpeak ; or *pernicioſa*, whereby we are terrified that we ſhould not love this perilous life; or elſe they are *ſuperflua*, which to affirm were moſt ridiculous : for as in a great houſe all things are not for uſe, but ſome for ornament, ſo is it in this World, the inferiour Palace of God. *Thus far Auſtin.*

Therefore I will conclude this firſt part, that not only the knowledge of the profitable creature is divine, and was firſt of all taught by God, but alſo of the hurtful : *For a wiſe Man*, ſaith *Solomon*, *ſeeth the Plague* (by the revelation of God) *and hideth himſelf from it.* And *John Baptiſt*, *Quis vos docuit ab ira ventura fugere ?* Theſe things have I principally laboured in this Treatiſe, to ſhew unto Men what Beaſts are their friends, and what their enemies, which to truſt, and which avoid, in which to find nouriſhment, and which to ſhun as poiſon. Another thing that perſwadeth me in the neceſſary uſe of this Hiſtory, that it was divine, was the preſervation of all creatures living, which are ingendred by copulation (except Fiſhes) in the Ark of *Noah*, unto whom it pleaſed the Creator at that time to infuſe an inſtinct, and bring them home to man as to a fold: ſurely it was for that a man might gain out of them much Divine knowledge, ſuch as is imprinted in them by nature, as a type or ſpark of that great wiſdom whereby they were created. In Mice and Serpents a foreknowledge of things to come, in the Ant and Piſmire a providence againſt old age; in the Bear the love of young; in the Lion his ſtately pace; in the Cock and Sheep, change of weather; as S. *Baſil* in his *Hexameron*, *Etiam in Brutis quidem futuri ſenſus eſt, ut nos præſenti vita non addicti ſimus, ſed de futuro ſæculo omne ſtudium habemus.*

For this cauſe there were of beaſts in holy Scripture three holy uſes, one for Sacrifice, another in Viſion, and a third for Reproof and Inſtruction.

In Sacrifices were the clean beaſts, which Men were bound firſt to know, and then to offer; for it is unreaſonable that thoſe things ſhould be ſacred at the Lords altar, which are refuſed worthily at private mens Tables. Now although we have no uſe of Sacrificing of Beaſts, *Nam ſicut bruta pro peccatis immolabantur, ita jam vitia pro corporibus*; yet we have uſe of clean Beaſts for food and nouriſhment, and therefore for the inriching of the minds and tables of men, it is neceſſary to know not only the liberty that we have to eat, but alſo the quality and nutriment of the Beaſt we eat, not for any Religion, but for health and corporal neceſſity. This point is alſo opened in this ſtory, and the other of Sacrifice, wherein I have not omitted to ſpeak of the Divine uſe of every Beaſt, both among the *Jews* and among the prophane *Gentiles*.

Now for the ſecond holy uſe of Beaſts in Viſions, the Prophet *Daniels* Viſions, and *Ezekiels*, and S. *Johns* in the *Revelation* do teſtifie of them, whereby the moſt Divines have obſerved how great Princes and Kingdoms after they have ſhaken off the practiſe of Juſtice and Piety, turn Tyrants and ravening Beaſts. For ſo Man being in honour underſtandeth not, but becometh like the Beaſts that periſh, and ſo as *Dionyſius* ſaith by Viſions of Beaſts, *Infima reducuntur pur media in ſuprema.* Now there were, as S. *Auguſtine* ſaith, three kinds of viſions, *Senſibiles, intellectuales, & imaginaria*: the firſt were moſt pregnant, becauſe to the underſtanding and conceiving, a Man never loſt his ſenſes, and therefore God did ſuddenly create ſavage Beaſts both of natural and extraordinary ſhapes, whereby he ſhewed to his ſervants the Prophets, the ruine or upriſing of beaſtly States and Kingdoms. And not only thus, but alſo in heaven (as St. *John* ſaith) there are 4 Beaſts ful of eyes before the throne of God; both which muſt needs magnifie the knowledge of theſe *Quadrupedes*; for ſeeing God hath uſed them as Sacraments or Myſteries to contain his will, (not only in monſtrous treble-headed, or ſeven-horned ſhapes, but alſo) in pure, ordinary, natural limbs and members; how ſhall we be able to gheſſe at the meaning in the ſecret, that do not underſtand the revealed? And what uſe can we make of the inviſible part of that Sacrament, where we know not the meaning of the viſible? Doth the Lord compare the Devil to a Lion; evill Judges to Bears; falſe Prophets to Wolves; ſecret and crafty perſecutors to Foxes; open enemies in hoſtility to wilde Boars; Heretickes and falſe Preachers to Scorpions; good men to the Fowles of heaven, and Martyrs to Sheep, and yet we have no knowledge of the natures of Lions, Wolves, Bears, Foxes, wilde Boars, or Scorpions? Surely when *Solomon* ſaith to the ſluggard, Go to the Piſmire, he willeth him to learn the nature of the Piſmire, and then according thereto reform his manners: And ſo all the World are bid to learn the natures of all Beaſts, for there is alway ſomething to be learned in them, according to this ſaying of St. *Baſil*, *A deo nihil non providum in natura rebus eſt, neque quicquam pertinentis ad ſecura expers, & ſi ipſas animalium partes conſideraveris, invenies quod neque ſuperfluum quid conditor oppoſuit, neque neceſſaria detraxit.* Then it being clear that every Beaſt is a natural Viſion, which we ought to ſee and underſtand, for the more clear apprehenſion of the inviſible Majeſty of God, I will conclude that I have not omitted this part of the uſe of Beaſts, but have collected, expreſſed, and declared, what the Writers of all ages have herein obſerved.

Now the third and laſt holy uſe that is made of Beaſts in Scripture, is for Reproof and Inſtruction; ſo the Lord in *Job* 38, & 39. mentioneth the Lion, the Raven, the wilde Goats, the Hinds, the Hind-Calves, the wilde Aſſes, the Unicorn, the Oſtrich, the Stork, the puiſſant Horſe, the Hawke, the Eagle, the Vulture, the Whale, and the Dragon, that is, the Fowles, Fiſhes, Serpents, and Four-footed Beaſts: All which he reckoneth as known things to *Job*, and diſcourſeth of as ſtrange things in their natures as any we have inſerted for truth in our Hiſtory, as may appear to any man whatſoever, that will look ſtudiouſly into them.

Shall I add hereunto how *Moſes*, and all the Prophets, St. *John Baptiſt*, our moſt bleſſed Saviour, St. *Paul*, and all the Writers ſince his time (both ancient and later) have made profeſſion of this part of Divinity; ſo that he was an unskilful Divine and not apt to teach, which could not at his fingers ſpeak of theſe things: for (ſaith our Saviour) *If I tell you earthly things and ye believe not, how ſhall ye believe when I tell you heavenly things?*

Solomon, as it is witneſſed in holy Scripture, wrote of Plants, of Birds, of Fiſhes, and Beaſts, and even then when he ſtood in good favour with God, therefore it is an exerciſe of the higheſt Wiſdom to travel in, and the Nobleſt minds to ſtudy in: for in it as I will ſhew you (with your good patience, for I have no other Preface) there is both the knowledge of God and Man. If any man object, *Multa multi de muſca, de apicula, de vermiculo, pauca de Deo:* I will anſwer with the words of *Theodorus Gaza, Permulta enim de Deo is tractat, qui doctrina rerum conditarum exquiſitiſſima, conditorem ipſum declarat, neque muſca, neque vermiculus omittendus eſt ubi de mira ſolertia agitur.* Whereunto St. *Auſtin* agreeth when he ſaith, *Majeſtatem; divinam aque in formica membris atque magno jamento tranante fluvium.* And for the knowledge of man, many and moſt excellent rules for publick and private affaires, both for preſerving a good conſcience, and avoiding an evill danger, are gathered from Beaſts: It were too long to run over all, let me (I beſeech you) be bold to reckon a few which deſcend from Nature onr common parent, and therefore are neither ſtrained, counterfeit, inconſtant, or deceitful; but free, full of power to perſwade, true, having the ſeal of the Higheſt for their evidence; conſtant and never altred in any age; faithful, ſuch as have been tryed at fire and touch-ſtone.

Were not this a good perſwaſion againſt murder, to ſee all Beaſts ſo to maintain their natures, that they kill not their own kind? Who is ſo unnatural and unthankful to his Parents, but by reading how the young *Storkes* and *Wood-peckers* do in their parents old age feed and nouriſh them, will not repent, amend his folly, and be more natural? What man is ſo void of compaſſion, that hearing the bounty of the *Bone-breaker Bird* to the young *Eagles*, will not become more liberal? Where is there ſuch a ſluggard and drone, that conſidereth the labours, pains, and travels of the Emmet, little Bee, Field-mouſe, Squirrel, and ſuch other that will not learn for ſhame to be more induſtrious, and ſet his fingers to work? Why ſhould any man living fall to do evill againſt his Conſcience, or at the temptation of the Devill, ſeeing a Lion will never yeeld? *Mori ſcit, vinci neſcit*; and ſeeing the little *Wren* doth fight with an *Eagle*, contending for Soveraingty? Would it not make all men to reverence a good King ſet over them by God, ſeeing the Bees ſeek out their King if he loſe himſelf, and by a moſt ſagacious ſmelling ſenſe, never ceaſe till he be found out, and then bear him upon their bodies if he be not able to flie, but if he die they all forſake him? And what King is not invited to clemency, and dehorted from tyranny, ſeeing the King of Bees hath a ſting, but never uſeth the ſame?

How great is the love & faithfulneſs of Dogs, the meekneſs of Elephants, the modeſty or ſhamefaſtneſs of the adulterous Lioneſs, the neatneſs and politure of the Cat and Peacock the juſtice of the Bee, which gathereth from all flowers that which ſerveth their turn, and yet deſtroyeth not the flower; the care of the Nightingale to make her voice pleaſant, the chaſtity of a Turtle, the canonical voice and watchfulneſs of a Cock, and to conclude, the utility of a Sheep? All theſe and ten thonſand more I could recite, to ſhew what the knowledge of the nature of brutiſh creatures doth work or teach the minds of men; but I will conclude this part with the words of S. *Jerom* againſt *Jovinian. Ad Herodem dicitur propter malitiam, Ite & dicite vulpi huic*, Luk. 13. *ad Scribas & Phariſæos genimina viperarum*, Mat. 23. *ad libidinoſos equi hinnientes in proximorum fœminas*, Jer. 5. *de voluptuoſo, Nolite mittere margaritas veſtras ante porcos. De impudentibus, neque ſanctum date canibus*, Mat. 7. *de infidelibus, Epheſi cum beſtiis pugnavi in ſimilitudine hominum.* And thus far S. *Jerom.* Whereby we may boldly aver by way of induction, that wherein the knowledge of God, the knowledge of Man, the precepts of Virtue, the means to avoid evill are to be learned, that Science is Divine and ought of all men to be inquired and ſought after: and ſuch have I manifeſted in this Hiſtory following.

Now again the neceſſity of this Hiſtory is to be preferred before the Chronicles and Records of all ages made by Men, becauſe the events and accidents of the time paſt, are peradventure ſuch things as ſhall never again come in uſe; but this ſheweth that Chronicle which was made by God himſelf, every living Beaſt being a word, every Kind being a ſentence, and all of them together a large Hiſtory, containing admirabl knowledge and learning, which was, which is, which ſhall continue, (if not for ever) yet to the Worlds end.

> *Et patris, & noſtras, nonumque prematur in annum,*
> *Membranis intus poſitis delere licebit*
> *Quod non edideris* ——————.

The ſecond thing in this diſcourſe which I have promiſed to affirm, is the truth of the Hiſtory of Creatures, for the mark of a good Writer is to follow truth and not deceivable Fables. And in this kind I have paſſed the ſtraighteſt paſſage, becauſe the relation of moſt things in this Book are taken out of Heathen writers, ſuch as peradventure are many times ſuperſtitiouſly credulous, and have added of their own very many raſh inventions, without reaſon, authority, or probability, as if they had been hired to ſell ſuch Fables: For, *Non bene conducti vendunt perjuria teſtes.* I would not have the Reader of theſe Hiſtories to imagine that I have inſerted or related all that ever is ſaid of theſe Beaſts, but only ſo much as is ſaid by many, *For in the month of two or three witneſſes ſtandeth every word*: aud if at any time I have ſet down a ſingle Teſtimony, it was becauſe the matter was clear and needeth not farther probation, or elſe I have laid it upon the Author with ſpecial words, not giving the Reader any warrant from me to believe it.

Beſides, I have taken regard to imitate the beſt Writers, which was eaſie for me to do, becauſe *Geſner* relateth every mans opinion (like a common place or *Dictionary*, as he profeſſeth;) and if at any time he ſeemed obſcure, I turned to the Books which I had at hand to gheſſe their meaning, putting in that which he had left out of many good Authors, and leaving out many magical deviſes. Now although I have uſed no ſmall diligence or care in collecting thoſe things which were moſt eſſential to every Beaſt, moſt true without exception, and moſt evident by the Teſtimony of many good Authors; yet I have delivered in this Treatiſe many ſtrange and rare things, not as Fictions, but Miracles of nature, for wiſemen to behold and obſerve to their ſingular comfort, if they love the power, glory, and praiſe of their maker, not withholding their conſent to the things expreſſed, becauſe they intreat of living things made by God himſelf. *Si ergo quarimus quis fecerit, Deus eſt: Si per quod, dixit, Fiat, & facta ſunt: Si quare fiat, quia bonus eſt. Nec enim autor eſt excellentior Deo, nec ars efficacior Dei verbo, nec cauſa melior, quam ut bonum crearetur a Deo bono*; and this *Plato* ſaid was the only cauſe of the worlds creation, *ut a Deo bono opera bona fierent.*

Now I do in a ſort challenge a conſent unto the probability of theſe things to wiſe and learned men, although no belief. For *Fides*, is *credere inviſibilia*; but *conſenſus* is a cleaving or yeelding to a relation untill the manifeſtation of another truth; and when any man ſhall juſtly reprove any thing I have written for falſe and erroneous, I will not ſtick to releaſe the Readers conſent, but make ſatisfaction for uſurpation. But for the rude and vulgar ſort (who being utterly ignorant of the operation of Learning, do preſently condemn all ſtrange things w^{ch} are not ingraven in the palms of their own hands, or evident in their own herds and flocks) I care not, for my ears have heard ſome of them ſpeak againſt the Hiſtory of *Sampſon*, where he tied fire-brands to the tails of Foxes, and many of them againſt the miracles of Chriſt. I may remember you (*R.W.*) of a Countrey tale of an old Maſſe-Prieſt in the daies of *Henry* the eight, who reading in *Engliſh* after the tranſlation of the Bible, the miracles of the five Loaves and two Fiſhes, and when he came to the verſe that reckoneth the number of the gheſts or eaters of the banquet, he pauſed a little, and at laſt ſaid, they were about five hundred: The *Clerk*, that was a little wiſer, whiſpered into the Prieſts ears that it was *five thouſand*, but the Prieſt turned back and replyed with indignation, *Hold your peace ſirrah, we ſhall never make them believe they were five hundred.*

Such Prieſts, ſuch People, ſuch perſons I ſhall draw upon my back, and although I do not challenge a power of not erring, yet becauſe I ſpeak of the power of God, that is unlimitable, I will be bold to aver that for truth in the Book of Creatures (although firſt obſerved by Heathen men) which is not contrary to the book of Scriptures.

Laſtly, that it is the proper office of a Preacher or Divine to ſet forth theſe works of God, I think no wiſeman will make queſtion, for ſo did *Moſes*, and *David*, and *Solomon*, and *Chriſt*, and S. *Paul*, and S. *John*, and S. *Ireney*, S. *Gregory*, S. *Baſil*, S. *Auſtin*, S. *Jerom*, S. *Bernard* in his enarrations or Sermons upon the Canticles, and of latter daies *Iſidorus*; The Monks of *Meſſuen*, *Geminianus*, and to conclude, that ornament of our time *Jeronimus Zanchius*. For how ſhall we be able to ſpeak the whole Counſel of God unto his people, if we read unto them but one of his books, when he hath another in the world, which we never ſtudy paſt the title or outſide; although the great God have made them an Epiſtle Dedicatory to the whole race of Mankind?

This is my indevour and pains in this Book, that I might profit and delight the Reader, whereinto he may look on the Holieſt daies, (not omitting prayer and the publick ſervice of God) and paſſe away the Sabbaths in heavenly meditations upon earthly creatures. I have followed *D. Geſner* as neer as I could, I do profeſs him my Author in moſt of my Stories, yet I have gathered up that which he let fall, and added many Pictures and Stories as may appear by Conference of both together. In the names of the Beaſts, and the Phyſick I have not ſwarved from him at all. He was a Proteſtant Phyſician, (a rare thing to finde any Religion in a Phyſitian) although St. *Luke* a Phyſician were a writer of the Goſpell. His praiſes therefore ſhall remain, and all living Creatures ſhall witneſſe for him at the laſt day. This my labor whatſoever it be, I conſecrate to the benefit of all our *Engliſh* Nation under your Name and Patronage, a publick Profeſſor, a learned and reverend Divine, a famous Preacher, obſerved in Court and Countrey; if you will vouchſafe to allow of my Labors, I ſtand not upon others, and if it have your commendation, it ſhall incourage me to proceed to the reſidue, wherein I fear no impediment but ability to carry out the charge, my caſe ſo ſtanding that I have not any acceſſe of maintenance, but by voluntary benevolence for perſonal pains, receiving no more but a laborious wages, and but for you, that had alſo been taken from me: Therefore I conclude with the words of St. *Gregory* to *Leontius*, *Et nos bona qua de vobis multipliciter prædicantur addiſcentes, aſſidue pro gloria veſtra incolumitate omnipotentem valeamus Dominum deprecari.*

Your Chaplain in the Church of

St. Botolph Alderſgate,

Edward Topſel.

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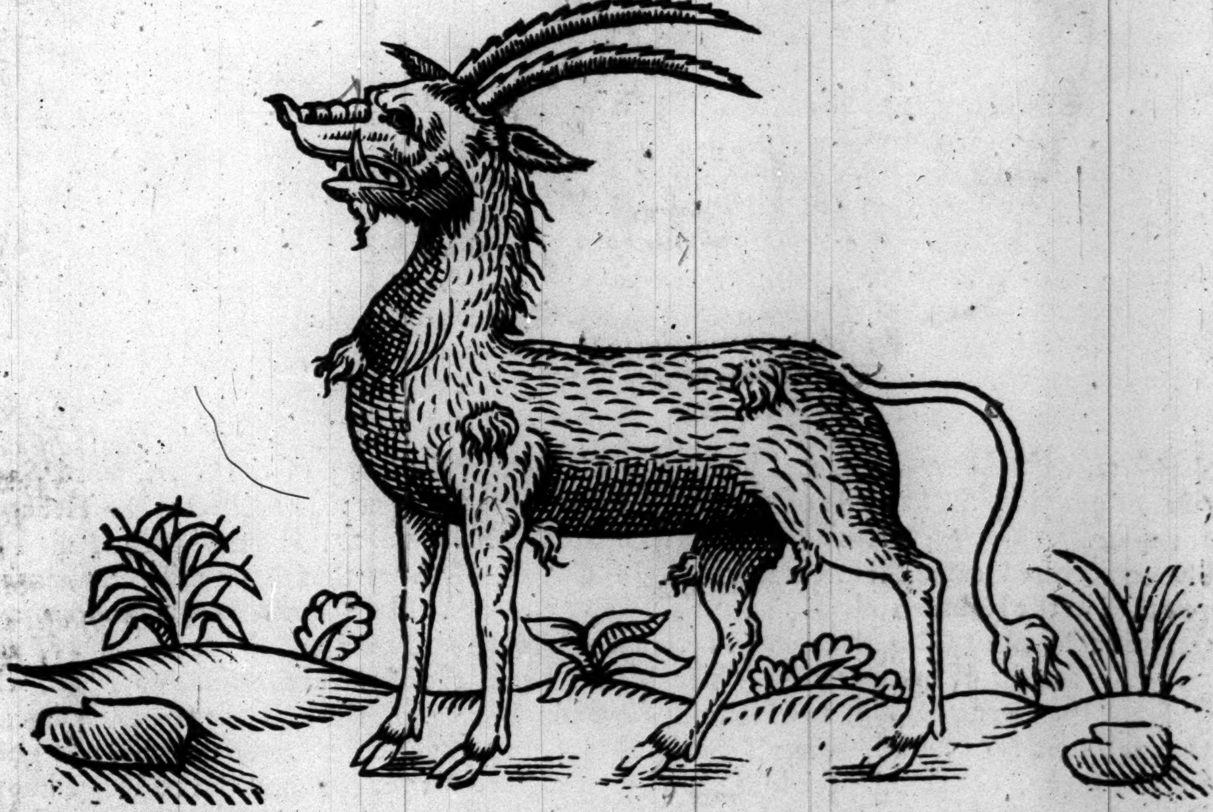
THE HISTORY OF Four-Footed Beaſts.

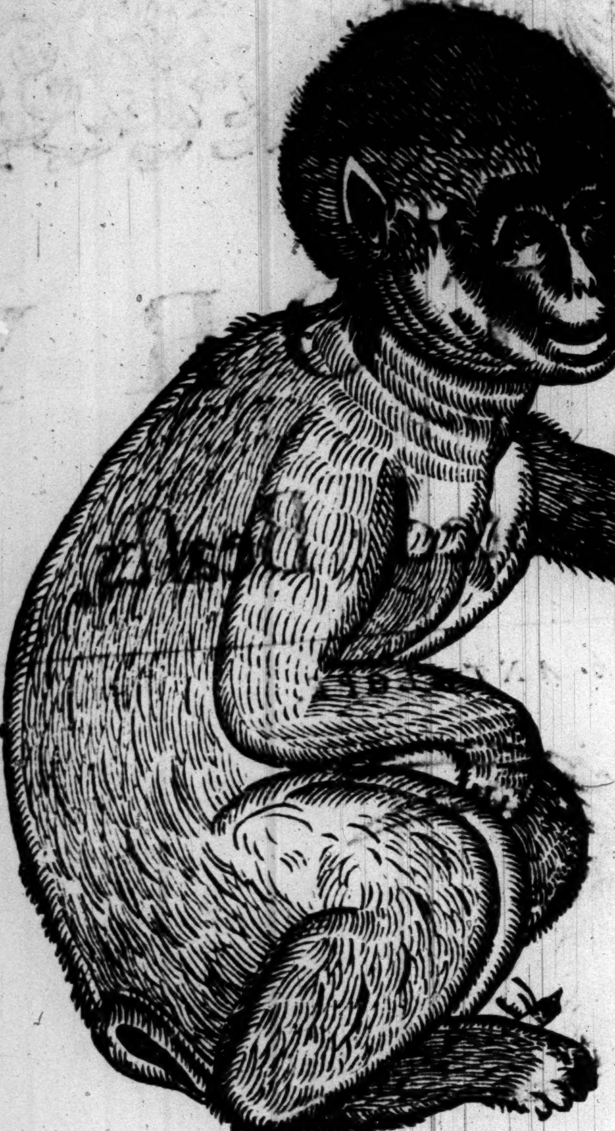
The *ANTALOPE*.



THE *Antalope* called in Latin *Calopus*, and of the Grecians *Analopos*, or *Aptolos*: of this beaſt there is no mention made among the Ancient Writers, except *Suidas*, and the Epiſtle of *Alexander* to *Ariſtotle*, interpreted by *Cornelius Nepotius*. They are bred in *India* and *Syria*, neer the River *Euphrates*, and delight much to drink of the cold water thereof: Their body is like the body of a *Roe*, and they have horns growing forth of the crown of their head, which are very long and ſharp; ſo that *Alexander* affirmed they pierced through the ſhields of his Souldiers, and fought with them very irefully: at which time his company ſlew as he travelled to *India*, eight thouſand five hundred and fifty; which great ſlaughter may be the occaſion why they are ſo rare, and ſeldom ſeen to this day, becauſe thereby the breeders and means of their continuance (which conſiſted in their multitude) were weakned and deſtroyed. Their horns are great and made like a ſaw, and they with them can cut aſunder the branches of Oſier or ſmall trees, whereby it cometh to paſſe that many times their necks are taken in the twiſts of the falling boughs, whereat the Beaſt with repining cry, bewrayeth himſelf to the Hunters, and ſo is taken. The virtues of this Beaſt is unknown, and therefore *Suidas* ſaith, an *Antalope* is but good in part.

Countrey of breed.

Of the APE.



Cicero.
Claudian.
Martial.
Horace.
Of the name.

AN *Ape* called in Latin *Simia*, and ſometimes *Simius* and *Simiolus*; of the Greek word *Simos* (*viz.*) ſignifying the flatneſſe of the Noſtrils: for ſo are an Apes: and called of the Hebrews *Koph*, and plurally *Kophim*; as it is by S. *Jerom* tranſlated, 1 King. 10. 22. From whence it may be probably conjectured, came the Latin words *Cepi* and *Cephi*, for Apes that have tails. Sometimes they are called of the Hebrews *Bogiah*, and of the *Chaldees Kokin*. The *Italians Samada Majonio*, and *Bertuccia*, and a Munkey *Gatto Maimone*. The ancient Grecians *Pithecos* and the later *Mimon*, and *Arkbizanes*, by reaſon of his imitation. The Moors *Bugia*, the Spaniards *Mona*, or *Ximio*, the French *Singe*, the Germanes *Aff*, the Flemiſh *Simme* or *Schimmekell*, the Illyrians *Opieze*, and generally they are held for a ſubtill, ironicall, ridiculous and unprofitable Beaſt, whoſe fleſh is not good for meat, as a ſheep, neither his back for burden, as an Aſſes; nor yet commodious to keep a houſe, like a Dog; but of the Grecians termed *Gelotopoios*, made for laughter.

The ſmall uſe of Apes.

* Athenæus.

Apes made for laughter.

* *Anacharſis* the Philoſopher, being at a banquet wherein divers Jeſters were brought in to make them merry, yet never laughed, among the reſidue; at length was brought in an Ape, at the ſight whereof he laughed heartily; and being demanded the cauſe why he laughed not before, anſwered, that men do but faign merriments, whereas Apes are naturally made for that purpoſe. Moreover Apes are much given to imitation and deriſion, and they are called *Cercopes*, becauſe of their wicked waſts, deceits, impoſtures and flatteries: wherefore of the Poets it is faigned, that there were two brethren moſt wicked fellows, that were turned into Apes, and from their ſeat or habitation came the the *Pithecuſan* Iſlands, which *Virgil* calleth *Inarime*: for *Arime* was an old *Hetrurian* word for an Ape, and thoſe Iſlands being the ſeats of the * Giants (who being by God overthrown for their wickedneſs) in deriſion of them, Apes were planted in their rooms. Apes have been taught to leap, ſing, drive Wagons, reigning and whipping the horſes very artificially, and are very capable of all humane actions, having an excellent memory either to ſhew love to his friends, or hateful revenge to them that have harmed him, but the ſaying is good, that the threatning of a flatterer, and the anger of an Ape, are both alike regarded. It delighteth much in the company of Dogs and young Children, yet it will ſtrangle young Children if they be not well looked unto. A certain Ape ſeeing a Woman waſhing her Child in a baſon of warm water, obſerved her diligently, and getting into the houſe when the Nurſe was gone, took the Child out of the cradle, and ſetting water

Qualities of Apes.

* Varinus.
Docibility of Apes.

Nurſe received by Apes.

* In Hiſtory.

water on the fire, when it was hot, ſtripped the Child naked, and waſhed the Child therewith untill it killed it.

The Countreys where Apes are found, are *Lybia* and all that deſert Woods betwixt *Egypt*, *Æthiopia* and *Lybia*, and that part of *Caucaſus* which reacheth to the red Sea. In *India* they are moſt abundant, both red, black, green, duſt-colour, and white ones, which they uſe to bring into Cities (except red ones, who are ſo venereous that they will raviſh their Women) and preſent to their Kings, which grow ſo tame, that they go up and down the ſtreets ſo boldly and civilly, as if they were Children, frequenting the Market places without any offence: whereof ſo many ſhewed themſelves to *Alexander* ſtanding upright, that he deemed them at firſt to be an Army of enemies, and commanded to joyn battel with them, untill he was certified by *Taxilus* a King of that Countrey then in his Campe, they were but Apes.

Countreys breeding Apes.

Book of Voyages.

In *Caucaſus* there are trees of Pepper and Spices whereof Apes are the gatherers, living among thoſe trees: for the Inhabitants come, and under the trees make plain a plat of ground, and afterward caſt thereupon boughs and branches of Pepper, and other fruits, as it were careleſly; which the Apes ſecretly obſerving, in the night ſeaſon they gather together in great abundance all the branches loaden with Pepper, and lay them on heaps upon that plat of ground, and ſo in the morning come the *Indians* and gather the Pepper from thoſe boughs in great meaſure, reaping no ſmall advantage by the labor of Apes, who gather their fruits for them whiles they ſleep: for which cauſe they love them and defend them from Lions, Dogs, and other wild Beaſts. In the region of *Baſman*, ſubject to the great *Cham* of *Tartaria*, are many and divers ſorts of Apes, very like mankind, which when the Hunters take, they pull of their hairs all but the beard and the hole behind, and afterward dry them with hot ſpices, and poudering them, ſell them to Merchants, who carry them about the world, perſwading ſimple people that there are men in Iſlands of no greater ſtature. To conclude, there are Apes in *Troglodyta* which are maned about the neck like Lions, as big as great Bel-weathers. So are ſome called *Cercopitheci*, *Munkies*, *Chæropitheci*, *Hog Apes*, *Cepi*, *Callitriches*, *Marmoſits*, *Cynocephali*, of a Dog and an Ape, *Satyres*, and *Sphinges*, of which we will ſpeak in order, for they are not all alike, but ſome reſemble men one way, and ſome another: as for a *Chymæra*, which *Albertus* maketh an Ape, it is but a figment of the Poets. The ſame man maketh *Pigmeys* a kind of Apes, and not men, but *Niphus* proveth that they are not men, becauſe they have no perfect uſe of Reaſon, no modeſty, no honeſty, nor juſtice of government, and although they ſpeak, yet is their language imperfect; and above all they cannot be men, becauſe they have no Religion, which (*Plato* ſaith truly) is proper to every man. Beſides, their ſtature being not paſt three, four, or five ſpans long, their life not above eight years, and their imitation of man, do plainly prove them rather to be Apes then Men: and alſo the flatneſs of their Noſes, their combats with Cranes and Partridges for their egges, and other circumſtances I will not ſtand upon, but follow the deſcription of Apes in general. Apes do outwardly reſemble men very much, and *Veſalius* ſheweth, that their proportion differeth from mans in more things then *Galen* obſerved, as in the muſcles of the breaſt, and thoſe that move the armes, the elbow and the ham, likewiſe in the inward frame of the hand, in the muſcles moving the toes of the feet, and the feet and ſhoulders, and in the inſtrument moving in the ſole of the foot, alſo in the fundament and meſentery, the lap of the liver, and the hollow vein holding it up, which men have not; yet in their face, noſtrils, ears, eye-lids, breaſts, armes, thumbes, fingers and nails, they agree very much. Their hair is very harſh and ſhort, and therefore hairy in the upper part like men, and in the neather part like beaſts: they have teeth before and behind like men, having a round face, and ey-lids above and beneath, which other *Quadrupedes* have not. *Politianus* ſaith, that the face of a Bull or Lion is more comely then the face of an Ape, which is like a mans. They have two Dugs, their breaſts and armes like men, but rougher, ſuch as they uſe to bend, as a man doth his foot. So their hands, fingers and nails, are like a mans, but ruder and nimbler; and nature having placed their Dugs in their breaſt, gave them armes to lift their young ones up to ſuck them. Their feet are proper, and not like mans, having the middle one longeſt, for they are like great hands, and conſiſt of fingers like hands, but they are alike in bigneſs, except that which is leaſt to a man, is greateſt to an Ape, whoſe ſole is like the hand but that it is longer, and in the hinder part it is more fleſhy, ſomewhat reſembling a heel, but put backward it is like a fiſt.

Labour of Apes.

Diverſity of Apes.

Chymæra.

lib. 7. 1. de animal.

Pygmeys.

Oneſicritus.

The anatomy of Apes.

They uſe their feet both for going and handling; the neather parts of their armes, and their thighes are ſhorter then the proportion of their elbows and ſhins: they have no Navel, but there is a hard thing in that place; the upper part of their body is far greater then the neather, like other *Quadrupedes*, conſiſting of *a proportion between five and three*: by reaſon wereof they grow out of kind, having feet like hands and feet. They live more downward then upward, like other four-footed Beaſts, and they want Buttocks, (although *Albertus* ſaith they have large ones) they have no tail, like two legged creatures, or a very ſmall ſigne thereof. The genitall or privy place of the female is like a Womans, but the Males is like a Dogs: their nouriſhment goeth more forward then backward, like the beſt Horſes, and the *Arabian Seraph*, which are higher before then behind; and that Ape whoſe meat goeth forward by reaſon of the heat of heart and liver, is moſt like to a man, in ſtanding upright: their eyes are hollow, and that thing in men is accounted for a ſigne of a malicious mind, as little eyes are a token of a baſe and abject ſpirit. Men that have low and flat Noſtrils are Libidinous as Apes that attempt women, and having thick lips, the upper hanging over the neather, they are deemed fools, like the lips of Aſſes and Apes. *Albertus* ſaith, he ſaw the heart of a Male Ape, having two tops or ſharpe ends, which I know not whether to term a wonder or a Monſter. An

Ape and a Cat have a ſmall back, and ſo hath a weak hearted man, a broad and ſtong back ſignifieth a valiant and magnanimous mind. The Apes nails are half round, and when they are in copulation, they bend their Elbowes before them, the ſinews of their hinder joynts being turned clean about, but with a man it is clean otherwiſe. The veins of their armes are no otherwiſe diſſected then a mans, having a very ſmall and ridiculous crooked thumb, by reaſon of the Muſcles which come out of the hinder part of the leg, into the middle of the ſhin, and the fore muſceles drawing the leg backward, they cannot exactly ſtand upright, and therefore they run and ſtand, like a man that counterfeits a lame mans halting.

The diſpoſition of Apes.

An Hiſtory.

Places of their abode.

Food of Apes.

The manner of taking Apes.

Procreation of Apes.

And as the body of an Ape is ridiculous, by reaſon of an indecent likeneſs and imitation of man, ſo is his ſoul or ſpirit; for they are kept only in rich mens houſes to ſport withall, being for that cauſe eaſily tamed, following every action he ſeeth done, even to his own harme without diſcretion. A certain Ape after a ſhipwrack ſwimming to land, was ſeen by a Countrey-man, and thinking him to be a man in the water, gave him his hand to ſave him, yet in the mean time asked him what Countreyman he was, who anſwered, he was an *Athenian*: well, ſaid the man, doſt thou know *Piræus?* (which was a port in *Athens*) very well ſaid the Ape, and his wife, friends, and children, whereat the man being moved, did what he could to drown him. They keep for the moſt part in Caves and hollow places of hils, in rocks and trees, feeding upon Apples and Nuts, but if they find any bitterneſs in the ſhell, they caſt all away. They eat Lice, and pick them out of heads and garments. They will drink wine till they be drunk, but if they drink it oft, they grow not great, ſpecially they loſe their nails, as other *Quadrupedes* do. They are beſt contented to ſit aloft, although tied with chains. They are taken by laying for them ſhoos and other things, for they which hunt them will anoint their eyes with water in their preſence, and ſo departing, leave a pot of lime or hony inſtead of the water, which the Ape eſpying, cometh and anointeth her eyes therewith, and ſo being not able to ſee, doth the hunter take her. If they lay ſhoos, they are leaden ones, too heavy for them to wear, wherein are made ſuch deviſes of gins, that when once the Ape hath put them on, they cannot be gotten off without the help of man: So likewiſe for little bags made like breeches, wherewithal they are deceived and taken. They bring forth young ones for the moſt part by twins, whereof they love the one and hate the other; that which they love they bear in their armes, the other hangeth at the damns back, and for the moſt part ſhe killeth that which ſhe loveth, by preſſing it too hard; afterward ſhe ſetteth her whole delight upon the other.

Secrets in their nature.

Their imitation.

Their love.

Their fear.

The *Egyptians* when they deſcribe a Father leaving his inheritance to his Son that he loveth not, picture an Ape with her young one upon her back. The male and female abide with the young one, and if it want any thing, the male with fiſt, and ireful aſpect puniſheth the female. When the Moon is in the wane, they are heavie and ſorrowful, which in that kind have tails; but they leap and rejoyce at the change: for as other Beaſts, ſo do theſe, fear the defect of the Stars and Planets. They are full of diſſimulation, and imitation of man, they readilyer follow the evill then the good they ſee. They are very fierce by nature, and yet tamed forget it, but ſtill remain ſubject to madneſs. They love Conies very tenderly, for in *England* an old Ape (ſcarſe able to go) did defend tame Conies from the Weaſel, as Sir *Thomas More* reported. They fear a ſhell fiſh and a Snail very greatly, as appeareth by this Hiſtory.

An antiquity.

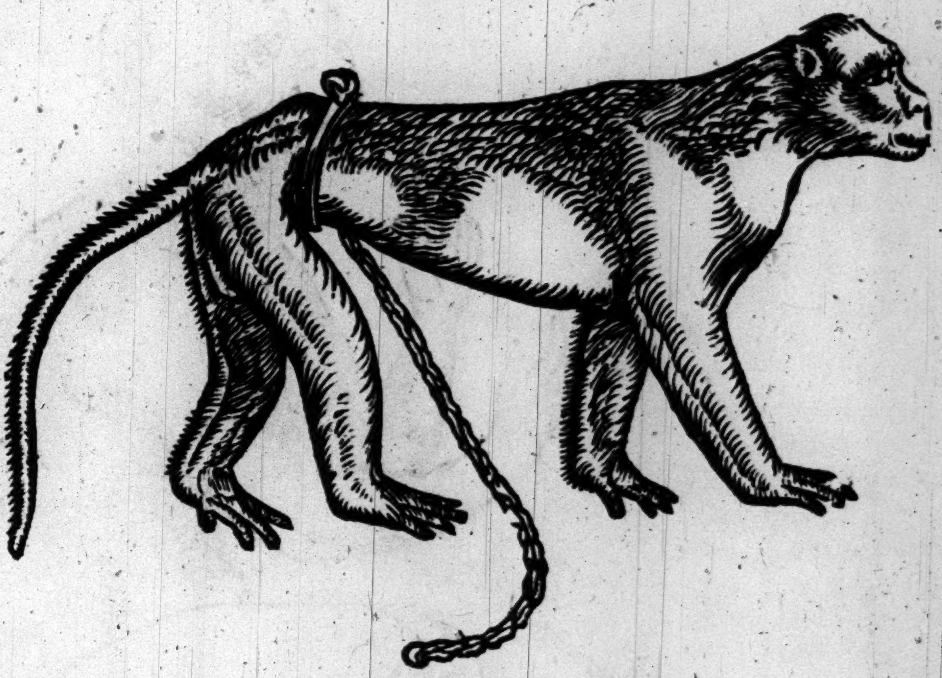
In *Rome*, a certain Boy put a Snail in his hat and came to an Ape, who as he was accuſtomed, leaps upon his ſhoulder and took off his hat to kill Lice in his head, but eſpying the Snail, it was a wonder to ſee with what haſte the Ape leaped from the Boys ſhoulder, and in trembling manner looked back to ſee if the Snail followed him. Alſo when a Snail was tied to the one end of another Apes chain, ſo that he could not chuſe but continually look upon it, one cannot imagine how the Ape was tormented therewith, finding no means to get from it, caſt up whatſoever was in his ſtomach, and fell into a grievous Fever till it was removed from the Snail, and refreſhed with wine and water. *Cardane* reporteth, that it was an ancient cuſtom in former time when a Parricide was executed, he was (after he was whipped with bloody ſtripes) put into a ſack, with a live Serpent, a Dog, an Ape and a Cock: by the Serpent was ſignified his extreme malice to mankind in killing his Father, by the Ape that in the likeneſs of man he was a Beaſt, by the Dog how like a Dog he ſpared none, no not his own Father, and by a Cock his hateful pride, and then were they all together hurl'd headlong into the Sea. That he might be deemed unworthy of all the Elements of life, and other bleſſings of nature.

The medicine of Apes.

A Lion ruleth the Beaſts of the Earth, and a Dolphin the Beaſts of the Sea; when the Dolphin is in age and ſickneſs, ſhe recovereth by eating a Sea-ape: and ſo the Lion by eating an Ape of the earth, and therefore the *Egyptians* paint a Lion eating an Ape, to ſignifie a ſick man curing himſelf. The heart of an Ape ſod and dryed, whereof the weight of a groat drunk in a draught of ſtale Hony, ſod in water, called *Melicraton*, ſtrengthneth the heart, emboldneth it, and driveth away the pulſe and puſillanimity thereof: ſharpeneth ones underſtanding, and is ſoveraign againſt the falling evill.

The *MUNKEY.*

THe *Munkey* called in Greek *Cercopithecos*, and ſo in Latin *Cercopithecus*, that is, a tailed Ape: not to diſtinguiſh it from all other Apes, but from other vulgar and common Apes, for there be Apes with tails beſides a Munkey, but not ſo often ſeen. It is thought of ſome that the Hebrew *Ziim*, ſignifieth a Munkey, other *Ochim*. Iſa. 13. *Babel ſhal be deſtroyed, and the fearful beaſt Ziim ſhal lie there, and Ochim ſhal fill their houſes.* Which *Ochim*, is interpreted Munkeys, but not generally; wherefore there is an opinion that this kind of Ape is generated of a wild Cat very like an Ape, and an Ape having two black ſpots on the cheeks, a long tail, and black at the end thereof, it is called of the Italians *Gatto maimone*, of the French *Marmot* of *Marmona*, that is, the Ape of a male, for *Mona* ſignifieth an Ape, of the Germans *Meerkatz*, that is the Cat of the Sea, of the Illyrian, *Morska*, and *Koczka*; as for *Mammonet*, it is a beaſt leſſe then an Ape; of the Celts it is called *Abranas*. They are very ſportful, and given to imitate the actions of men like Apes, it being a queſtion, whether Dogs, Elephants, or Munkeys, have the moſt underſtanding among Brutes, and as was ſaid before, when the Moon waneth, it is heavie and dull, but in the new Moon joccond and pleaſant. Betwixt the *Mammonets* and Apes is continuall war, and the *Mammonet* being the weaker, yet the wiſer and craftier creature, is much more couragious in fight then an Ape. Theſe Munkeys of all things moſt abhor a *Crocodile*, for at the ſight of the skin afar off, it hath been ſeen how the creature hath run through fire and water, crying and trembling for the naturall dread thereof.



Their names.

Munſter.

Albertus.

Generation of a Munkey.

Maris-mona.

Inclination of Munkeys.

Secrets of Munkeys nature.

Contention.

The fear of a Munkey.

They are bred in the hils of *Conſtance*, in the woods of *Bugia* and *Mauritania*. In *Æthiopia*, they have black heads, hair like Aſſes, and voices like to other. In *India* they report that the Munkeys will clime the moſt ſteep and high rocks, and fling ſtones at them that proſecute to take them. When the King of *Ioga* in *India* for Religion goeth on Pilgrimage, he carryeth with him very many Munkeys. In like ſort, Munkeys are brought from the new found Lands, from *Calechut* and *Praſia*; and not far from *Aden* a City of *Arabia*, is a moſt high hill abounding in theſe beaſts, who are a great hinderance to the poor vintagers of the Countrey of *Calechut*, for they will climb into the high Palm trees, and breaking the veſſels ſet to receive the Wine, pour forth that liquor they find in them: they will eat hearbs and grain, and ears of graſſe, going together in great flocks, whereof one ever watcheth at the utmoſt bounds of their camp, that he may cry out when the husbandman cometh, and then all flying and leaping into the next trees eſcape away: the females carry their young ones about with them on their ſhoulders, and with that burden leap from tree to tree.

Joh. Leo. African.

The Countrey of their abode and breed.

Hurt of Munkeys.

Their food.

There be of this kind of Munkeys two ſorts, one greater, the other leſſer, as is accounted in *England*, and Munkeys are in like ſort ſo divided, that there be in all four kinds differing in bigneſs, whereof the leaſt is little bigger then a Squirrel, and becauſe of their marvellous and divers mowings, movings, voices and geſtures, the Engliſhmen call any man uſing ſuch Hiſtrionical Actours a Munkey.

Diverſities of Munkeys.

The only difference betwixt theſe and other Apes aforeſaid, is their tail; they differ from men in their nerves, in the joints of their loynes, and their proceſſes, and they want the third muſcle moving the fingers of their hands. *Mammonets* are leſſe then an Ape, brown on the back, and white on the belly, having a long and hairy tail, his neck almoſt ſo big as his body, for which cauſe they are tied by the hips that they ſlip not collar. They have a round head, a face like a man, but black and bald on the crown, his noſe in a reaſonable diſtance from his mouth like a mans, and not continued like an Apes, his ſtones greeniſh blew, like a Turkey ſtone. They are caught after the manner of

Solinus.

Their anatomy and parts.

Veſſalius.

Mammonets.

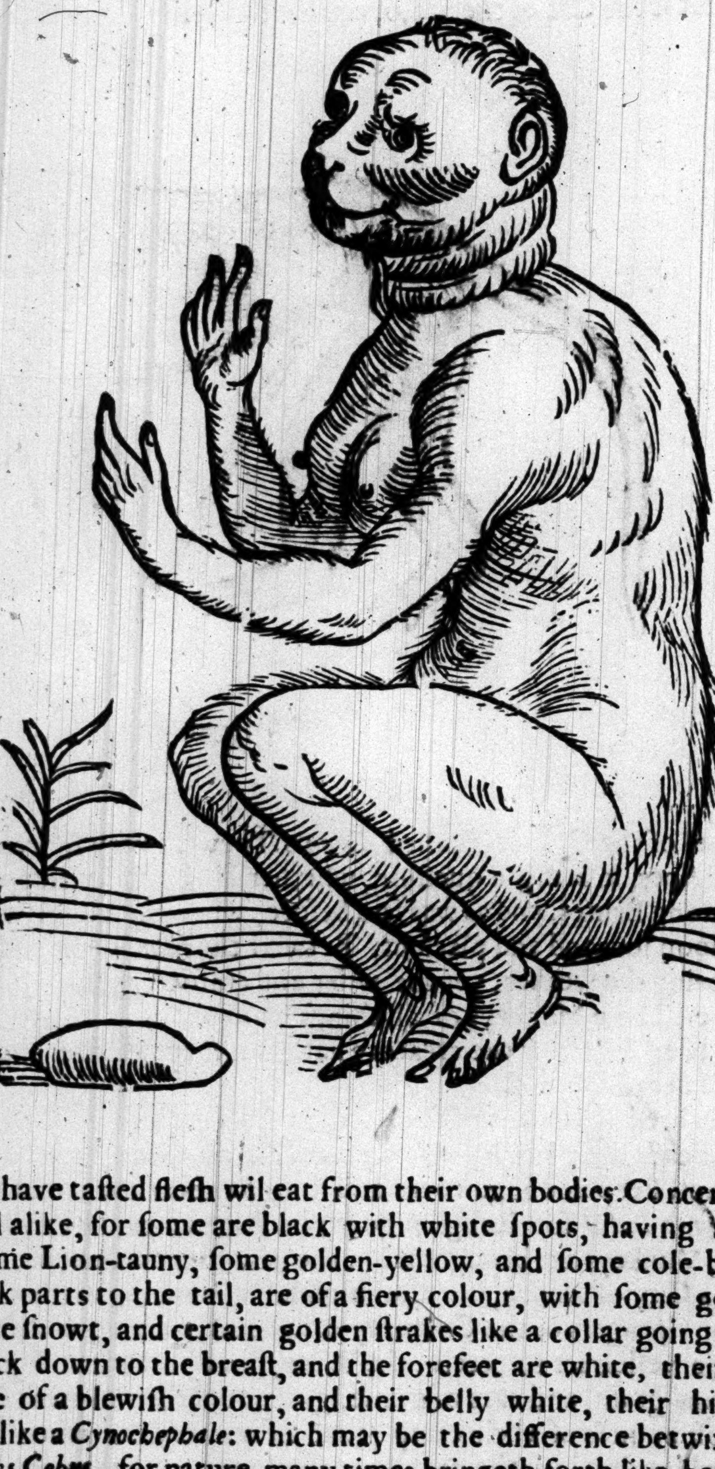
Feſtus.
Another kind.

Apes, and being tamed and taught, they conceive and work very admirable feats, and their skins pulled off them being dead are dreſſed for garments. The fooliſh *Arabians* dedicated *Memnonius cercopithecus* unto heaven, and in all afflictions implored his aid. There is one other kind of Munkeys, whoſe tail is only hairy at the tip, called *Cercolipis*.

The CEPUS, or *Martine Munkey*.

The name.
Diodorus Siculus.

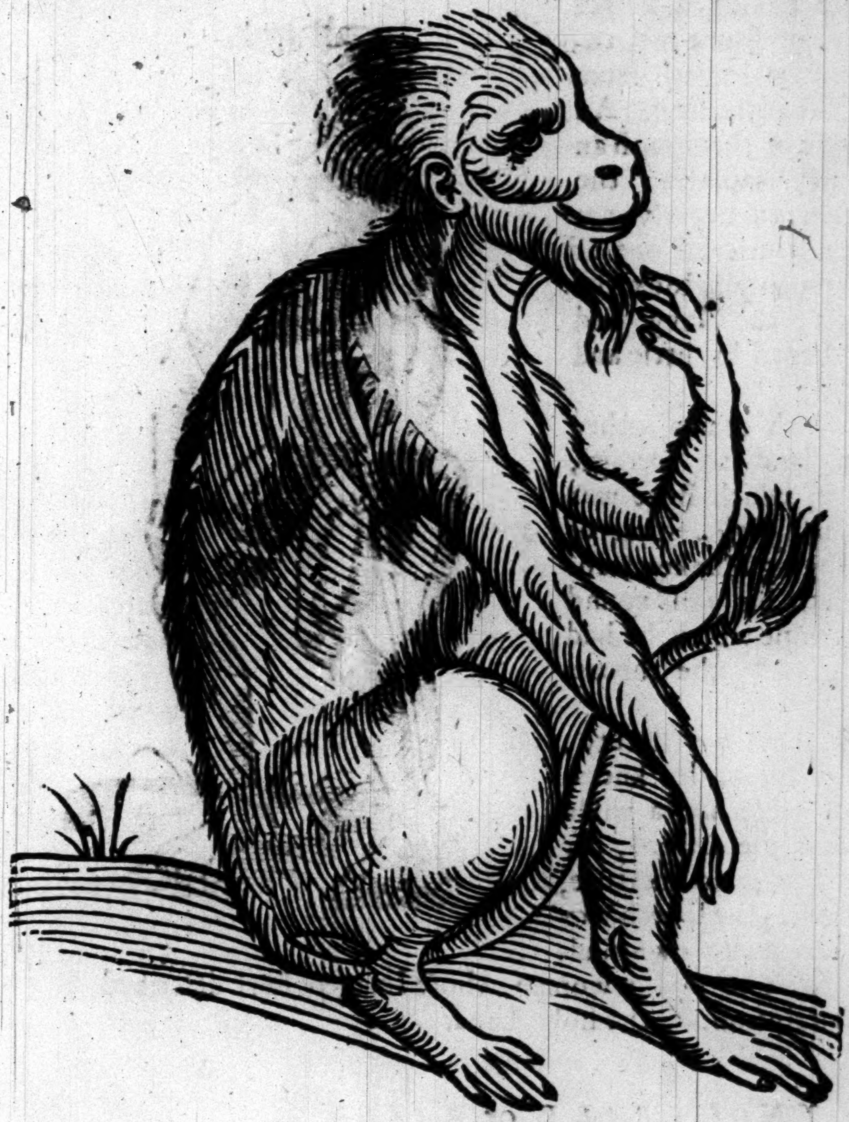
THe *Martin* called *Cepus* of the Greek word, *Kepos*, which *Ariſtotle* writeth *Kebos*, and ſome tranſlate *Cæbus*, ſome *Cephus* or *Cepphus* or more barbarouſly *Celphus*, the Latines ſometimes *Ortus*, for indeed this kind of Ape in his beſt eſtate is like * a garden ſet with divers flowers, and therefore the beſt kind of them is diſcerned and known by the ſweeteſt ſavour, ſuch being alwayes the moſt ingenious imitators of men. It is very probable that this name *Cepus* is derived of the Hebrew *Koph* and *Kophin* ſignifying Apes in general, as is before ſaid, but yet this kind is diſtinguiſhed from other by *Strabo*, *Ælianus* and *Pliny*, although *Ariſtotle* doth make no difference betwixt this and another ordinary Munkey.



Pliny.
The firſt knowledge of Martines.
Their Country of breed.
Strabo.
Their anatomy.
Strabo.
Scaliger. *
Their colour.
Ælianus.
Cay.
Their diſpoſition.

The games of great *Pompey* firſt of all brought theſe *Martines* to the ſight of the *Romans*, and afterward *Rome* ſaw no more; they are the ſame which are brought out of *Æthiopia* and the fartheſt *Arabia*; their feet and knees being like a mans, and their forefeet like hands, their inward parts like a mans, ſo that ſome have doubted what kind of creature this ſhould be, which is in part a man, and yet a Four-footed beaſt: it having a face like a Lion, and ſome part of the body like a Panther, being as big as a wilde Goat or Roe-buck, or as one of the Dogs of *Erithrea*, and a long tail, the which ſuch of them as have taſted fleſh wil eat from their own bodies. Concerning their colour, howſoever they are not all alike, for ſome are black with white ſpots, having a greater voice then others, ſome yellow, ſome Lion-tauny, ſome golden-yellow, and ſome cole-black: yet for the moſt part, the head and back parts to the tail, are of a fiery colour, with ſome golden hair aſperſed among the reſidue, a white ſnowt, and certain golden ſtrakes like a collar going about the neck, the inferiour parts of the neck down to the breaſt, and the forefeet are white, their two dugs as big as a mans hand can gripe, are of a blewiſh colour, and their belly white, their hinder legs black, and the ſhape of their ſnout like a *Cynochephale*: which may be the difference betwixt *Ælianus* and *Strabo* their *Cepus*, and *Ariſtotles Cebus*, for nature many times bringeth forth like beaſts which are not of the ſame kind. In *England* there was a *Martine* that had his back and ſides of a green colour, having here and there white hair, the belly, chin and beard (which was round) white, the face and ſhins black, and the noſe white, being of the leſſer kind, for in bigneſs it exceeded not a Coney. Some of them in *Æthiopia* have a face like a Satyre, and other members in part reſembling a Bear, and in part a Dog, ſo are the *Praſian* Apes. This *Martine* did the *Babylonians*, inhabiting neer *Memphis*, for the ſtangeneſs, the colour, and ſhape thereof, worſhip for a God. They are of evill diſpoſition like Apes, and therefore we will ſpare both their pictures and further deſcription, finding very little of them in Hiſtories worth commemoration.

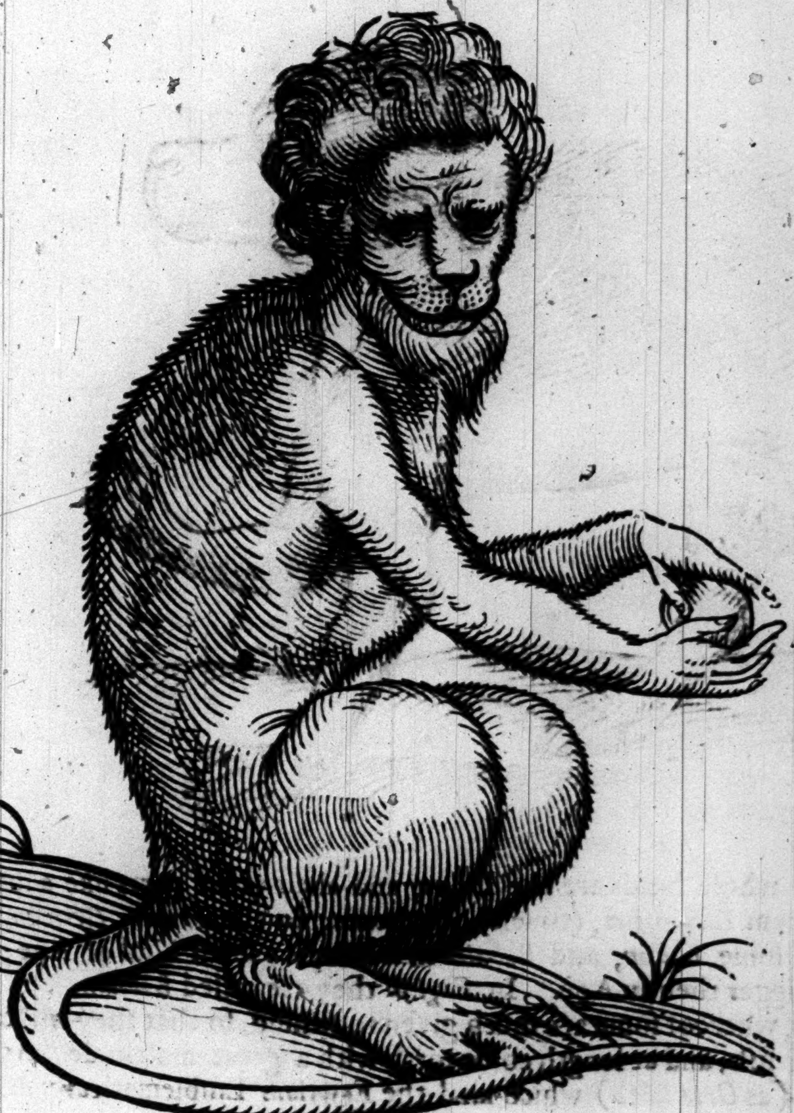
The Ape *CALITRICH.*



THe *Calitrich*, ſo called by reaſon of his beard, and may be termed in Engliſh a bearded Ape, will live no other where then in *Ethiopia* and *India*, which are eaſie to take, but very hard to bring away alive into theſe Countrys. They differ in appearance from all other Apes, having a long beard and a large tail, hairy at the end, being in *India* all white, which the *Indians* hunt with darts, and being tamed, they are ſo apt to play, that a man would think they were created for no other purpoſe; whereupon the Grecians uſe in proverbe, an Ape having a beard, for a ridiculous and fooliſh jeſting man.

The name.
Pliny.
Countrey of breed.
Their parts and colour.
Albertus.
Eraſmus.

Of the *Praſyan Apes.*



MEgaſthenes (ſaith *Ælianus* and *Strabo*) writeth of Apes in *Praſia* a Region in *India*, which are no leſſe then great Dogs, and five cubits high, having hair like a Man coming forth of their forehead and beards, being altogether white except their tails, which are two cubits and a half long, very like a Lions; and unto a ſimple man it might ſeem, that their tufts of hair were artificially trimmed, though it grow naturally. Their beard is much like a Satyres, and although their body be white, yet is their head and tip of their tail yellow, ſo that the *Martins* before mentioned, ſeem to be affianced to theſe. Theſe *Praſyan* Apes live in Mountains and Woods, and yet are they not wilde, but ſo tame that oftentimes in great multitudes they come down to the Gates and Suburbs of *Latagis*, where the King commandeth them dayly ſodden Rice for their food, which they eat, and being filled return again to their home and uſuall places of harbour in great moderation, doing no harme to any thing.

Their reſembance.
Ælianus.
Place of their abode.
Their food.

Peter

Lib. 4. Ocean. Decad 3.

Peter Martyr.

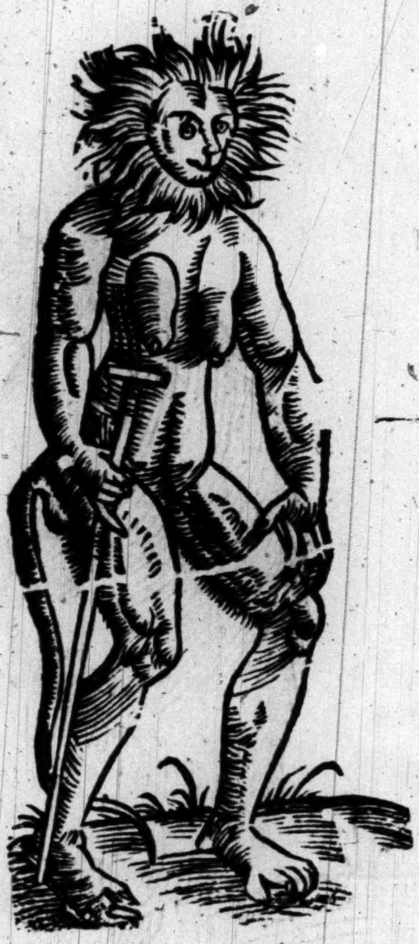
Peter Martyr telleth this ſtory of one of theſe, that he being like to a great Munkey, but having a longer tail, by rowling over and over three or four times together taketh ſuch ſtrength, that he leapeth from bough to bough, and tree to tree, as if he flew. An archer of that Sea-voyage hurt one of them with an arrow, the wounded beaſt preſently leapeth to the ground, and ſetteth upon the archer, as fiercely as a mad Dog; he drew his ſword and ſtruck off one of his armes, and ſo at laſt with much ado took the maimed beaſt, who being brought to the Navy, and accuſtomed to the ſociety of men, began by little and little to waxe tame.

The hatred of theſe Apes.

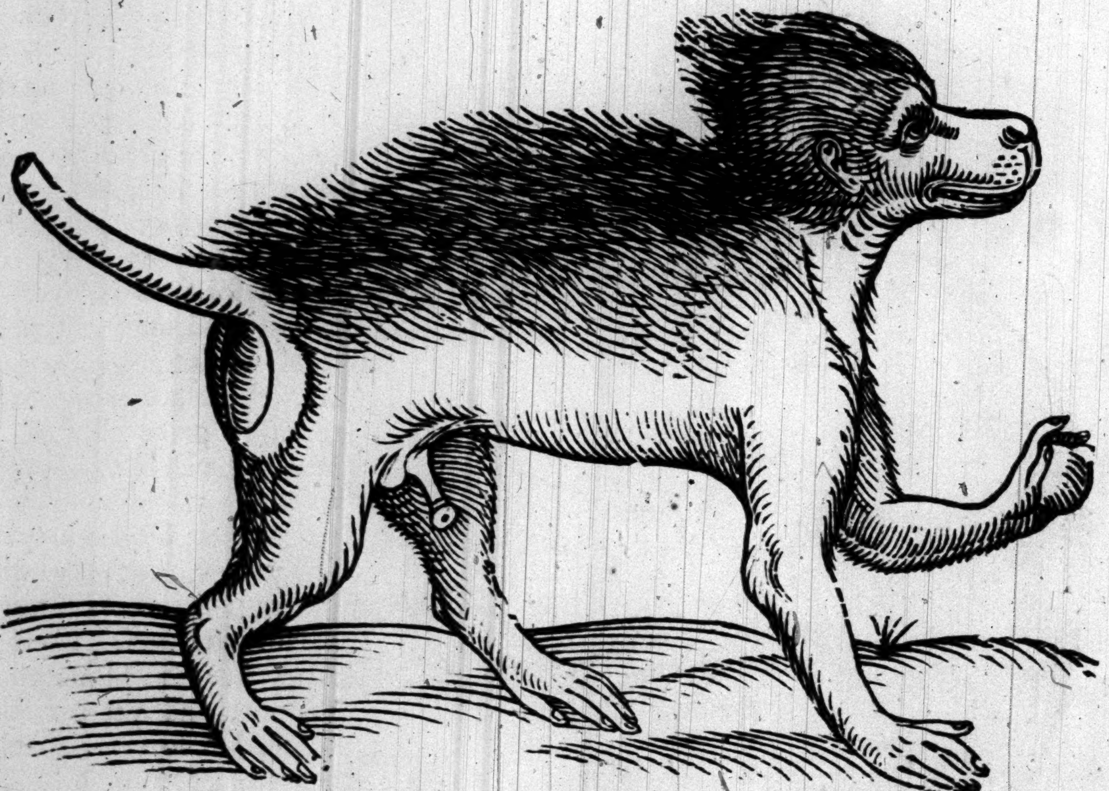
While he was in the ſhip bound with chains, other of the company having been on land to forrage, brought out of the Mariſhes a Bore, which Bore was ſhewed to the Munkey; at the firſt ſight either of other ſet up their briſtles, the raging Munkey leapeth upon the Bore, and windeth his tail round about the Bore, and with the one arme which he had left, caught him, and held him ſo faſt by the throat, that he ſtifled him.

His love.

There is another kind of Munkey, for ſtature, bigneſſe and ſhape like a Man, for by his knees, ſecret parts and face, you would judge him a wilde man, ſuch as inhabit *Numidia*, and the *Lapones*, for he is altogether overgrown with hair; no creature, except a man can ſtand ſo long as he; he loveth women and children dearly, like other of his own kind, and is ſo venereous that he will attempt to raviſh women, whoſe Image is here deſcribed, as it was taken forth of the book of the deſcription of the holy Land.



Of the *CYNOCEPALE* or *BABOUN*.



Ariſtotle.
Pliny.
Deſcription.

CYnocephales, are a kind of Apes, whoſe heads are like Dogs, and their other parts like a mans; wherefore *Gaza* tranſlateth them *Canicipites*, (to wit) dog-heads. In the *French*, *German*, and *Illyrian* tongues, they are called of ſome *Babion*, and *Babuino* in *Italian*, is a ſmall kind of Ape; but *Ariſtotle* ſaith, that a *Cynocephale* is bigger then an Ape. In *Engliſh* they are called *Babouns*.

Arrianus.
Preſter John ad Rom pont.

There are many kinds of *Baboons*, whereof ſome are much given to fiſhing, ſo that they will tarry a whole day in the deep hunting for fiſh, and at length come forth with a great multitude. Again, there are ſome which abhor fiſhes, (as *Orus* ſaith) which kind the *Egyptians* Emblematically uſe to paint

The induſtry of Babouns.

paint, when they will decipher a ſacrifice. Some there are which are able to write, and naturally to diſcern letters; which kind the old *Egyptian* Prieſts bring into their Temples, and at their firſt entrance the Prieſt bringeth him a writing Table, a pencil and inke, that ſo by ſeeing him write, he may make tryall whether he be of the right kind and the beaſt quickly ſheweth his skill: wherefore in ancient time, they were dedicated to *Mercury*, the fained god of learning.

Orus.

A ſecret in their nature.

The reaſon why the *Egyptians* do nouriſh them among their hallowed things is, that by them they may know the time of the conjunction betwixt the Sun and Moon; becauſe the nature of this beaſt is, to have a kind of feeling of that conjunction, for after that theſe two ſigns meet, the male *Baboun* neither will look up nor eat, but caſt his eyes to the ground, as it were lamenting the raviſhment of the Moon with diſdainful paſſion: in like manner the female, who moreover, at that time ſendeth forth bloud out of her womb of conception: whereupon the *Egyptians* ſignifie by a *Baboun* the Moon, the riſing of the Moon by his ſtanding upright holding his hands up toward heaven, and wearing a crown on his head, becauſe with ſuch geſtures doth that Beaſt congratulate her firſt appearance.

Circumciſion natural in *Babouns*.

Orus.

Another ſecret.

A wonder.

Orus.

Another cauſe why they bring them into their Temples is, becauſe of the holyneſs of circumciſion, for it is moſt true (though ſtrange) that they are brought forth circumciſed, at the leaſt wiſe in ſome appearance, whereunto the Prieſts give great heed to accompliſh and finiſh the work begun. The *Egyptians* alſo paint a Baboun ſitting, to ſignifie the *Equinoctium*, for in every *Equinoctium* they bark or howl twelve times in one day, and ſo many times make water: wherefore the *Egyptians* alſo upon their *Hydrologies* or Conduits did grave a *Baboun*, out of whoſe yard or privy part iſſued forth water; and they alſo ſay that this beaſt ſo nouriſhed among their holy things, dyeth not at once like other beaſts, but every day one part by the ſpace of 72 days (the other parts remaining in perfection of nature) which the Prieſts take and put in the earth day by day, till all periſh and be conſumed.

Heredotus.

The Countrey of their abode and breed.

Strabo.

Arrianus.

The Weſt region of *Lybia* and *Æthiopia* have great ſtore of *Cynocephals*, *Babouns*, and *Acephals*, beaſts without a head, whoſe eyes and mouth are in their breaſts. In like ſort in *Arabia*, from *Dira* Southward in a Promontory, there are many *Babouns*, and in the Continent called *Dachinabades* beyond *Barygaza*, and the Eaſtern Mountains of the *Mediterranean* region; and thoſe which *Apollonius* ſaw betwixt the rivers *Ganges*, and *Hyphaſis*, ſeem to be of this ſort, in that he deſcribeth them to be black haird, Dog-faced, and like little men; wherewithall *Ælianus* ſeemeth to be deceived, in ſaying, that there are men *Cynoproſopoi*, Dog-faced, whereas it is the error of vulgar people, to think that *Babouns* are men, differing only in the face or viſage,

Their anatomy and parts.

Albertus.

Their voice.

Ælianus.

Concerning their members or parts in ſeveral, they are black and hairy, rough skinned, red and bright eyes, a long Dogs face, and teeth ſtronger and longer then Dogs: the face of a Lion muſt not be attributed to this beaſt, nor yet a Satyres, though it be more like. It hath a grim and fearful face, and the female hath naturally her womb caſt out of her body, and ſo ſhe beareth it about all her life long: their voice is a ſhrill whizing, for they cannot ſpeak, and yet they underſtand the *Indian* language; under their beard they have a chin growing like a Serpents, and bearding about the lips like a Dragon; their hands are armed with moſt ſtrong nails, and ſharp; they are very ſwift of foot, and hard to be taken, wherefore they will run to the waters when they are hunted, being not ignorant that among waters they are moſt hardly taken; they are very fierce and active in leaping, biting deep and eagerly where they lay hold, neither do they ever grow ſo tame, but that they remain furious alſo. They love and nouriſh ſheep and Goats, and drink their milk; they know how to take the kernels out of Almonds, Walnuts and Nuts, as well as men, finding the meat within, though the ſhell be unprofitable: they will alſo drink wine and eat fleſh, ſod, roſted, or delicioully dreſſed, and they will eat Veniſon, which they by reaſon of their ſwiftneſs take eaſily, and having taken it tear it in pieces and roſt it in the Sun; they can ſwim ſafely over any waters, and therefore among the *Egyptians* they ſignifie ſwimming.

Their love and food.

Their activity in ſwimming.

Their nature in particular.

Their love of garments.

They are evill mannered and natured, wherefore alſo they are pictured to ſignifie wrath, they are ſo unappeaſable. The Latins uſe them adjectively to ſignifie any angry, ſtubborn, froward, or ravening man. They will imitate all humane actions, loving wonderfully to wear garments, and of their own accord they clothe themſelves in the skins of wilde beaſts they have killed, they are as luſtful and venereous as Goats, attempting to defile all ſorts of women, and yet they love little children, and their females will ſuffer them to ſuck their breaſts if they be held to them, and ſome ſay they will ſuck womens breaſts like little children. There was ſuch a beaſt brought to the French King, his head being like a Dogs, and his other parts like a mans, having legs, hands and armes naked like a mans, and a white neck; he did eat ſod fleſh ſo mannerly and modeſtly, taking his meat in his hands, and putting it to his mouth, that any man would think he had underſtood humane conditions: he ſtood upright like a man, and ſat down like a man. He diſcerned men and women aſunder, and above all loved the company of women, and young maidens; his genital member was greater then might match the quantity of his other parts: he being moved to wrath, would rage and ſet upon men, but being pacified, behaved himſelf as meekly and gently as a man, and was overcome with fair words: ſhewing himſelf well pleaſed with thoſe that ſported with him. The *Nomades* people of *Æthiopia*, and the Nations of *Menitimori* live upon the milk of *Cynocephales*, keeping great herds of them, and killing all the males, except ſome few preſerved for procreation.

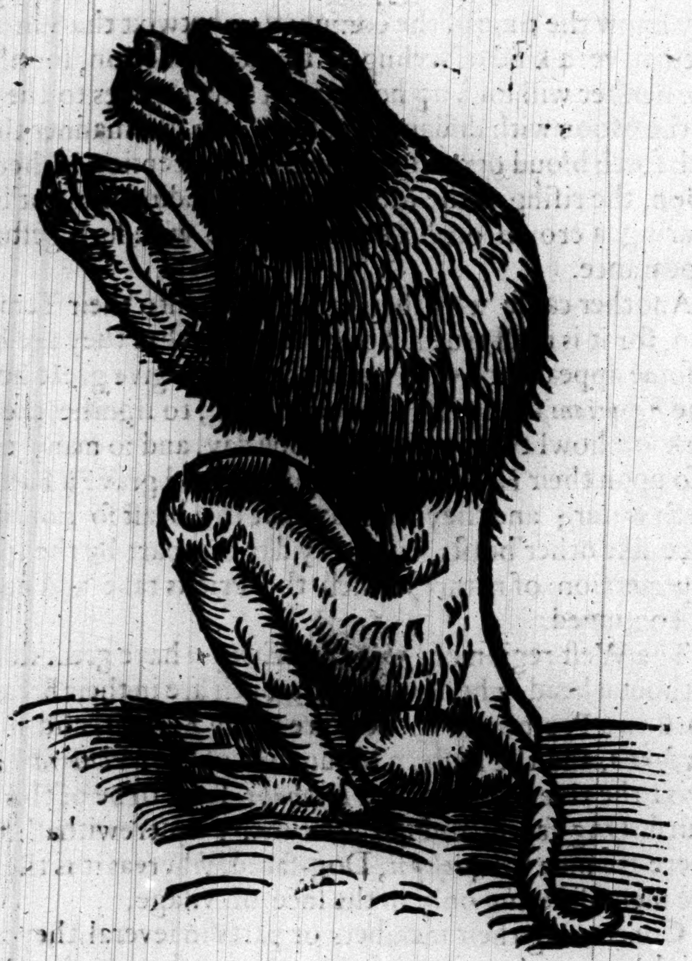
An Hiſtory.

lib de natura rerum.

A TARTARINE.

Theod. Beza.

THere was at *Paris* another beaſt called a *Tartarine*, and in ſome places a *Magot* (much like a *Baboun*, as appeareth by his natural circumciſion) being as great as a Gray-hound, and walketh for the moſt part upon two legs, being cloathed with a Souldiers coat, and a ſword girded to his ſide, ſo that the moſt part thought him to be ſome Monſter-little-man, for being commanded to his kennel, he would go and tarry there all night, and in the day time walk abroad to be ſeen of every man, it was doubtful whether he were of the *Munkey* kind or the *Baboun*, his voice was like the ſqueeking of a Mouſe, but his aſpect and countenance was fierce, truculent and fearful, as his image is here deciphered.



The SATYRE.

Superſtitious error of Satyres.

Their name.

AS the *Cynocephal* or *Baboun* Apes have given occaſion to ſome to imagine (though falſely) there were ſuch men, ſo the Satyres a moſt rare and ſeldom ſeen beaſt, hath occaſioned other to think it was a Devil; and the Poets with their Apes, the Painters, Limmers, and Carvers, to encreaſe that ſuperſtition, have therefore deſcribed him with horns on his head, and feet like Goats, whereas Satyres have neither of both. And it may be that Devils have at ſome time appeared to men in this likeneſs, as they have done in the likeneſſe of the *Onocentaure* and wild Aſſe, and other ſhapes; it being alſo probable, that Devils take not any denomination or ſhape from Satyres, but rather the Apes themſelves from Devils whom they reſemble, for there are many things common to the Satyre-Apes and Deviliſh-Satyres, as their humane ſhape, their abode in ſolitary places, their rough hair, and luſt to women, wherewithall other Apes are naturally infected: but eſpecially Satyres. Wherefore the Ancient Grecians conjecture their name to be derived as it were of *Stathes*, ſignifying the yard or virile member: and it is certain that the Devils have exerciſed their preſtigious luſt, or rather their imagination of luſt upon mankind, whereof cometh that diſtinction of *Fauni*, that ſome are *Incubi* defilers of Women, and ſome *Succubi* defiled by men. Peradventure the name of Satyre is more fitly derived from the Hebrew *Sair*, Iſa. 34. whereof the plural is *Seirim*, Iſa. 13. which is interpreted monſters of the Deſert, or rough hairy Fawnes; and when *iſſim* is put to *ſeir*, it ſignifieth Goats.

Gyraldus.

Grapaldus.

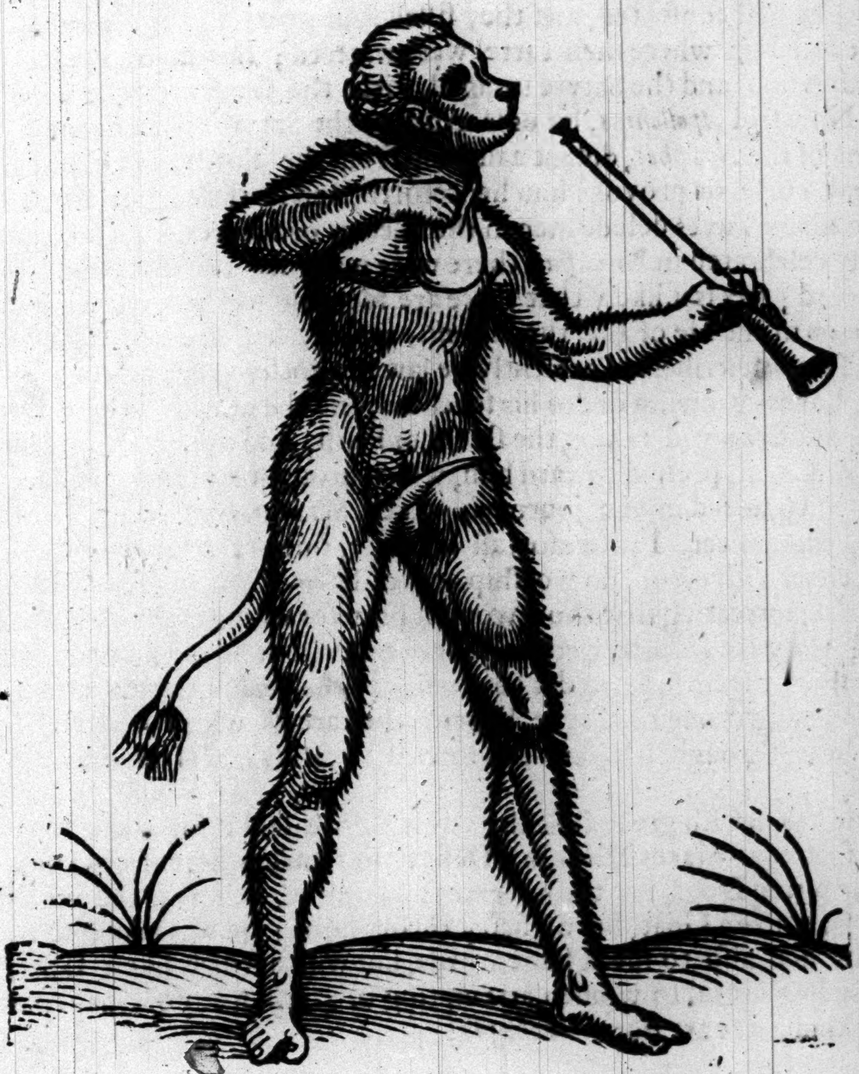
The *Chaldeans for Seirim*, render *Schedin*; that is, evill Devils: and the *Arabians*, *Leſejathin*; that is, *Satanas*: the *Perſians*, *Devan*; the *Illyrians*, *Devadai* and *Dewas*; the *Germans*, *Teufel*. They which paſſed through the world and exerciſed dauncing and other ſports, for *Dionyſius*, were called *Satyres*, and ſometimes *Tytiri*, becauſe of their wanton ſongs; ſometimes *Sileni* (although the difference is, that the ſmaller and younger beaſts are called *Satyri*, the elder and greater *Sileni*:) Alſo *Bacchæ* and *Nymphæ*, whereof *Bacchus* is pictured riding in a Chariot of Vinebranches, *Silenus* riding beſide him on an Aſſe, and the *Bacchæ* or *Satyres* ſhaking together their ſtalkie Javelines and Paulmers. By reaſon of their leaping they are called *Scirti*, and the antick or Satyrical dancing *Sicinnis*, and they alſo ſometimes *Sicinniſtæ*; ſometimes *Ægipanæ*: wherefore *Pliny* reporteth, that among the Weſtern *Ethiopians*, there are certain little hils of the *Satyrique Ægipanæ*, and that in the night time they uſe great fires, piping and dancing, with a wonderful noiſe of Timbrels and Cymbals: and ſo alſo in *Atlas* amongſt the *Moores*, whereof there was no footing, remnant, or appearance to be found in the day time.

The

Ptol. 2,7.
Countreys of breed.

The *Satyres* are in the Iſlands *Satyride*, which are three in number, ſtanding right over againſt *India* on the farther ſide of *Ganges*; of which *Euphemus Car* rehearſeth this Hiſtory, That when he ſailed into *Italy*, by the rage of wind and evill weather, they were driven to a Coaſt unnavigable, where were many deſert Iſlands inhabited of wilde men, and the Mariners refuſed to land upon ſome Iſlands, having heretofore had trial of the inhumane and uncivil behaviour of the inhabitants; ſo that they brought us to the *Satyrian Iſlands*, where we ſaw the inhabitants red, and had tails joyned to their back, not much leſs then horſes. Theſe being perceived by the Mariners to run to the Ships and lay hold on the women that were in them, the Ship-men for fear took one of the Barbarian women and ſet her on the land among them, whom in moſt odious and filthy manner they abuſed, not only in that part that nature hath ordained, but over the whole body moſt libidinouſly, whereby they found them to be very brute beaſts.

Their luſtful diſpoſition.



Pliny.
Paul. Venet.
Diverſity of kinds.
Pliny.
Pliny.
Hermolaus.
Pliny.

There are alſo *Satyres* in the Eaſtern mountains of *India*, in the Countrey of the *Cartaduli*, and in the Province of the *Comari* and *Corudæ*, but the *Cebi* ſpoken of before bred in *Ethiopia*, are not Satyres (though faced like them:) nor the *Praſyan* Apes, which reſemble Satyres in ſhort beards. There are many kinds of theſe Satyres better diſtinguiſhed by names then any properties natural known unto us. Such are the *Ægipanæ* before declared, *Nymphes* of the Poets, *Fawnes*, *Pan*, & *Sileni*, which in the time of the Gentiles were worſhipped for gods; and it was one part of their Religion, to ſet up the picture of a Satyre at their doors and gates, for a remedy againſt the bewitching of envious perſons; and the ſtatue of *Priapus* in the *Agalma* of a Satyre in their Gardens: for which cauſe we read of many pictures made of Satyres. *Antiphalus* made a very noble one in a *Panthers* skin, calling it *Apoſcopon*, that is, *Wry-faced*. Another Painter of *Ariſtides*, painted it crowned with a drinking cup, ſignifying thereby the beaſtlineſſe of drunkards. *Miron* had one painted hearing and admiring pipes, and another called *Periboetos* at *Athens*, as is reported, & that *Praxiteles* was wonderfully in love therewith; whereupon being at ſupper with *Phryne* the noble harlot, who had begged of him the beſt piece of work he had, conſented with this condition, that he would not tel her which he loved beſt; whereupon ſhe to ſatisfie herſelf, privately ſuborned one of his ſlaves, to come in at ſupper time, and tell him his houſe and moſt of his goods were burned; whereat being amazed, demanded if *Cupid* and the *Satyre* were ſafe; by which ſhe knew the beſt piece, and asked *Cupid*, refuſing the Satyre. *Protogenes* had one painted holding pipes in his hand, and was called *Anapauomenos*: & *Timanthes* had painted *Cyclops* ſleeping in a little tablet, with Satyrs ſtanding beſide him, meaſuring with a javelin the length of his thumb.

Mela.
Reſemblance of Satyres.
Their proviſion of food.
Their taking.

Satyres have no humane conditions in them, nor other reſemblance of men beſide their outward ſhape: though *Solinus* ſpeak of them like as of men. They cary their meat under their chin as in a ſtorehouſe, and from thence being hungry they take it forth to eat, making it ordinary with them every day which is but annual in the *Formicæ* Lions; being of very unquiet motions above other Apes. They are hardly taken, except ſick, great with young, old, or aſleep; for *Sylla* had a Satyre brought him which was taken aſleep neer *Apollonia*, in the holy place *Nymphæum*, of whom he (by divers interpreters) demanded many queſtions, but received no anſwer, ſave only a voice much like the neying of a horſe, whereof he being afraid, ſent him away alive. *Philoſtratus* telleth another hiſtory, how that *Apollonius* and his colleagues ſupping in a village of *Ethiopia*, beyond the fall of *Nilus*, they heard a ſudden outcry of women calling to one another; ſome ſaying, *Take him*, others, *Follow him*: likewiſe provoking their husbands to help them: the men preſently took clubs, ſtones, or what came firſt to hand, complaining of an injury done unto their wives. Now ſome ten moneths before there had appeared a fearful ſhew of a Satyre, raging upon their women, and had ſlain two of them, with whom he was in love: the companions of *Apollonius* quaked at the hearing hereof, and *Nilus*

one

Taming of Satyres.

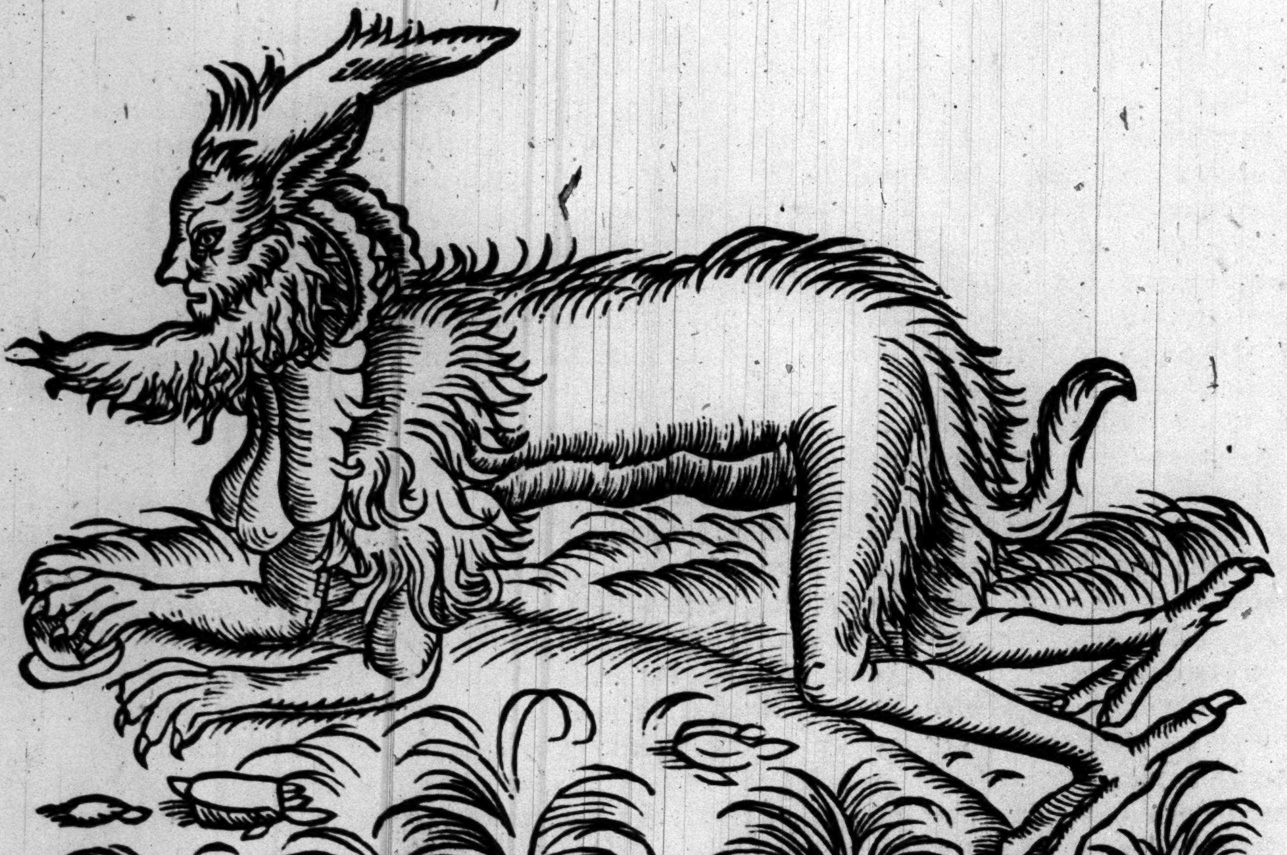
one of them ſware (by *Jove*) that they heing naked and unarmed, could not be able to reſiſt him in his outragious luſt, but that he would accompliſh his wantonneſs as before: yet ſaid *Apollonius*, there is a remedy to quail theſe wanton leaping beaſts, which men ſay *Midas* uſed (for *Midas* was of kindred to Satyres, as appeared by his ears.) This *Midas* heard his mother ſay, that Satyres loved to be drunk with wine, and then ſleep ſoundly, and after that be ſo moderate, mild and gentle, that a man would think they had loſt their firſt nature.

Pauſanias.
Macrobius.
Men like Satyres.

Whereupon he put wine into a fountain neer the high-way, whereof when the Satyre had taſted he waxed meek ſuddenly, and was overcome. Now, that we think not this a fable (ſaith *Apollonius*) let us go to the governor of the Town, and inquire of him whether there be any wine to be had that we may offer it to the Satyre: whereunto all conſented, and they filled four great *Egyptian* earthen veſſels with wine, and put it into the fountain where their cattel were watered; this done, *Apollonius* called the Satyre, ſecretly threatning him, and the Satyre inraged with the ſavour of the wine came; after he had drunk thereof, Now ſaid *Apollonius*, let us ſacrifice to the Satyre, for he ſleepeth, and ſo led the inhabitants to the dens of the *Nymphes*, diſtant a furlong from the Town, and ſhewed them the Satyre, ſaying, Neither beat, curſe, or provoke him henceforth, and he ſhall never harme you. It is certain, that the Devils do many wayes delude men in the likeneſs of Satyres, for when the drunken feaſts of *Bacchus* were yearly celebrated in *Parnaſſus*, there were many ſights of Satyres, and voices, and ſounding of Cymbals heard; yet is it likely that there are Men alſo like Satyres inhabiting in ſome deſert places; for S. *Jerom* in the life of *Paul* the *Eremite*, reporteth there appeared to S. *Antony* an *Hippocentaure*, ſuch as the Poets deſcribe, and preſently he ſaw in a rocky valley adjoyning, a little man having crooked noſtrils, hornes growing out of his forehead, and the neather part of his body had Goats feet: the holy man not diſmayed, taking the ſhield of Faith, and the breaſtplate of Righteouſneſs, like a good Souldier of Chriſt, preſſed toward him, which brought him ſome fruits of palms as pledges of his peace, upon which he fed in the journey; which St. *Antony* perceiving, he asked him who he was, and received this anſwer, I am a mortall creature, one of the inhabitants of this Deſert, whom the Gentiles (deceived with error) do worſhip and call *Fauni*, Satyres, and *Incubi*: I am come in ambaſſage from our flock, intreating that thou wouldſt pray for us unto the common GOD, who came to ſave the world; the which words were no ſooner ended, but he ran away as faſt as any fowl could flie. And leſt this ſhould ſeem falſe, under *Conſtantine* at *Alaxandria*, there was ſuch a man to be ſeen alive, and was a publick ſpectacle to all the World; the carcaſs whereof after his death was kept from corruption by heat, through ſalt, and was carried to *ANTIOCHIA* that the Emperor himſelf might ſee it.

Albertus.
Two beaſts like Satyres taken.

Satyres are very ſeldom ſeen, and taken with great difficulty, as is before ſaid: for there were two of thoſe found in the Woods of *Saxony* towards *Dacia*, in a Deſert, the female whereof was killed by the darts of the hunters, and the biting Dogs, but the male was taken alive, being in the upper parts like a Man, and in the neather part like a Goat, but all hairy throughout; he was brought to be tame, and learned to go upright, and alſo to ſpeak ſome words, but with a voice like a Goat, and without all reaſon: he was exceeding luſtful to women, attempting to raviſh many of what condition ſoever they were, and of this kind there are ſtore in *Ethiopia*.



The

The figure of another Monſter.

THe famous learned man *George Fabricius*, ſhewed me this ſhape of a monſtrous beaſt (the figure whereof ſee p. 12.) that is fit to be joyned to the ſtory of Satyres. There was (ſaid he) in the Territory of the Biſhop of *Saltzburgh*, in a forreſt called *Fannesbergh*, a certain four-footed beaſt, of a yellowiſh-carnation colour, but ſo wild that he would never be drawn to look upon any man, hiding himſelf in the darkeſt places, and being watched diligently, would not be provoked to come forth ſo much as to eat his meat, ſo that in a very ſhort time it was famiſhed. The hinder legs were much unlike the former, aud alſo much longer. It was taken about the year of the Lord, One thouſand five hundred thirty, whoſe image being here ſo lively deſcribed, may ſave us further labour in diſcourſing of his main and different parts and proportion.

Another monſter like a Satyre.

Colour and nature.

Of the Norvegian Monſters.

WHen as certain Ambaſſadors were ſent from *James* the fourth of that name, King of *Scotland*, among whom was *James Ogill* that famous Scholar of the Univerſity of *Aberdene*, they no ſooner took ſhipping and hoiſted ſail, but there ſudainly aroſe ſuch a tempeſtuous ſtorm, that they were driven to the coaſts of *Norway*: and there going on ſhoar, they were very ſtrangely affrighted, to ſee (as to them it appeared) certain wild, monſtrous men, running on the tops of the mountains. Afterward they were told by the inhabitants that they were beaſts (and not men) which did bear mortal hatred to mankind, although they could not abide the preſence of a mans countenance, yet in dark nights, when the reverend viſage of humane creatures are covered, they will come down by troops upon the Villages, and except the barking of Dogs drive them back, they break open doors, and enter houſes, killing and devouring whoſoever they find; for their ſtrength is ſo unreſiſtible and great, that they can pull up by the roots a tree of mean ſtature, and tearing the boughs from the body, with the ſtock or ſtem thereof they fight one with another. Which when the Ambaſſadors heard, they cauſed a ſure watch to be kept all night, and withall made exceeding great fires, and when the light appeared, they took their farewel of thoſe Monſter-breeding-ſhores, recovering with joy, the courſe which before they had loſt by tempeſt.

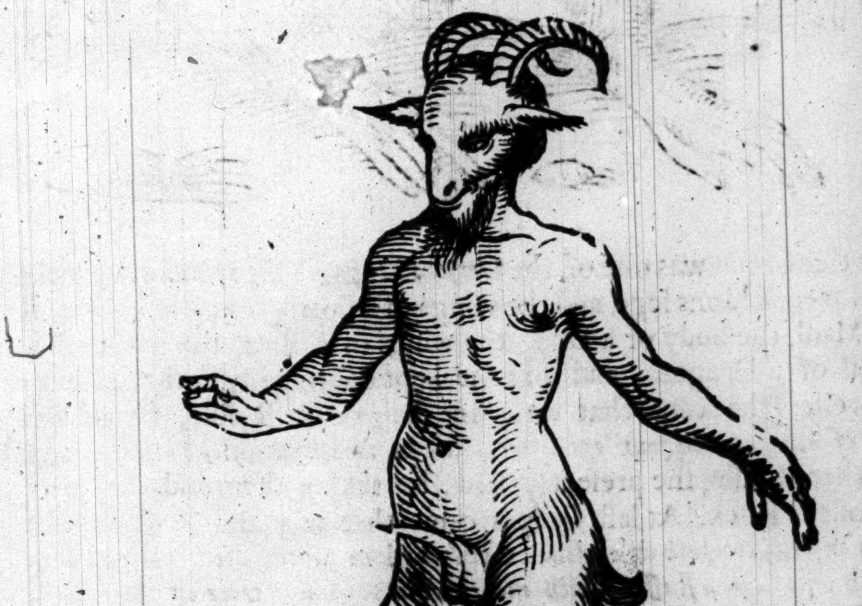
Hect. Boet.

Monſters like Men.

Hatred to mankind.

The great ſtrength of theſe beaſts.

Of the ÆGOPITHECUS.



UNder the *Equinoctial* toward the Eaſt and South, there is a kind of Ape called *Ægopithecus*, an Ape like a Goat. For there are Apes like Bears, called *Arctopitheci*, and ſome like Lions, called *Leontopitheci*, and ſome like Dogs, called *Cynocephali*, as is before expreſſed; and many other which have a mixt reſemblance of other creatures in their members.

Divers ſhaps of Apes.

Amongſt the reſt is there a beaſt called PAN; who in his head, face, horns, legs, and from the loins downwards reſembleth a Goat; but in his belly, breaſt, and armes, an Ape: ſuch a one was ſent by the King of *Indians* to *Conſtantine*, which being ſhut up in a Cave or cloſe place, by reaſon of the wildneſs thereof, lived there but a ſeaſon, and when it was dead and bowelled, they pouldred it with ſpices, and carried it to be ſeen at *Conſtantinople*: the which having been ſeen of the ancient *Grecians*, were ſo amazed at the ſtrangeneſs thereof, that they received it for a god, as they did a Satyre and other ſtrange beaſts.

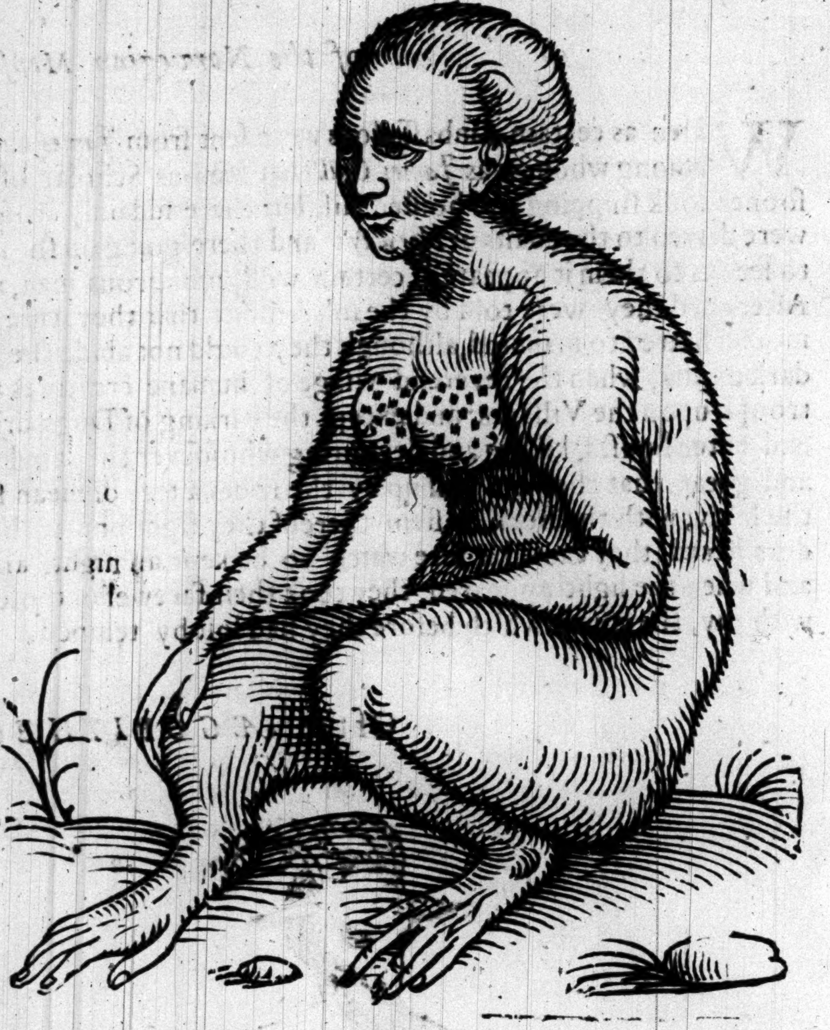
The deſcription of Pan.

Nicephorus. Caliſthius.

Of the *SPHINGA* or *SPHINX.*

Pliny.
Caliſthius.
The deſcription.
Ælianus.
Countrey of breed.
Lions-formicæ.
Pliny.
Their nature.
Albertus.
Manner of carrying their meat.

THe *Sphinx* or *Sphinga* is of the kind of Apes, having his body rough like Apes, but his breaſt up to his neck, pilde and ſmooth without hair: the face is very round yet ſharp and piked, having the breaſts of women, and their favour or viſage much like them: In that part of their body which is bare without hair, there is a certain red thing riſing in a round circle like Millet ſeed, which giveth great grace and comlineſs to their colour, which in the middle part is humane. Their voice is very like a mans but not articulate, ſounding as if one did ſpeak haſtily with indignation or ſorrow. Their hair brown or ſwarthy colour. They are bred in *India* and *Ethiopia*. In the Promontory of the fartheſt *Arabia* neer *Dira*, are *Sphinges*, and certain Lions called *Formicæ*, ſo likewiſe they are to be found amongſt the *Troglodytæ*. As the *Babouns* and *Cynocephales* are more wild then other Apes, ſo the Satyres and *Sphinges* are more meek and gentle, for they are not ſo wilde that they will not be tamed, nor yet ſo tame but they will revenge their own harms; as appeared by that which was ſlain in a publick ſpectacle among the *Thebanes*. They carry their meat in the ſtorehouſes of their own chaps or cheeks, taking it forth when they are hungry, and ſo eat it: not being like the *Formicæ*, for that which is annual in them, is dayly and hourly amongſt theſe.



Of the name and notation thereof.
* *Hermolaus.*
* *Varrianus.*
Heſiod.
Auſonius.
The deſcription of the Poets Sphinx.
The Riddle of the Sphinx.
The ſolution of the Riddle by *Oedipus.*

The name of this *Sphinx* is taken from * binding, as appeareth by the Greek notation, or elſe of delicacie and dainty nice * looſneſs, (wherefore there were certain common ſtrumpets called *Sphinctæ*, and the *Megarian Sphingas*, was a very popular phraſe for notorious harlots) hath given occaſion to the Poets, to faign a certain monſter called *Sphinx*, which they ſay was thus derived. *Hydra* brought forth the *Chymera*, *Chymera* by *Orthus* the *Sphinx*, and the *Nemean* Lion: now this *Orthus* was one of the *Geryons* Dogs. This *Sphinx* they make a treble formed monſter, a Maidens face, a Lions legs, and the wings of a Fowl; or as *Auſonius* and *Varinus* ſay, the face and hand of a Maid, the body of a Dog, the wings of a Bird, the voice of a man, the claws of a Lion, and the tail of a Dragon: and that ſhe kept continually in the *Sphincian* mountain; propounding to all travellers that came that way, an *Ænigma* or Riddle, which was this, *What was the creature that firſt of all goeth on four legs, afterwards on two, and laſtly on three:* and all of them that could not diſſolve that Riddle, ſhe preſently ſlew, by taking them and throwing them down headlong from the top of the Rock. At laſt *Oedipus* came that way and declared the ſecret, that it was (*a Man*) *who in his infancy creepeth on all four*, afterward *in youth, goeth upright upon two legs*, and laſt of all *in old age, taketh unto him a ſtaffe which maketh him to go as it were on three legs*; which the monſter hearing, ſhe preſently threw down her ſelf from the former rock, and ſo ſhe ended. Whereupon *Oedipus* is taken for a ſubtle and wiſe opener of myſteries.

Palæphatus.
The true Hiſtory of Sphinx.

But the truth is, that when *Cadmus* had maried an *Amazonian* woman, called *Sphinx*, and with her came to *Thebes*, and there ſlew *Draco* their King, and poſſeſſed his Kingdom; afterward there was a ſiſter unto *Draco* called *Harmona*, whom *Cadmus* maried, *Sphinx* being yet alive: She in revenge (being aſſiſted by many followers) departed with great ſtore of wealth into the Mountain *SPHINCIUS*, taking with her a great Dog which *Cadmus* held in great account, and there made daily incurſions or ſpoils upon his people: Now *Ænigma* in the *Theban* language, ſignifieth an inrode or warlike incurſion, wherefore the people complained in this ſort, *This* Grecian Sphinx *robbeth us, in ſetting upon with an* Ænigma, *but no man knoweth after what manner ſhe maketh this* Ænigma.

Cadmus hereupon made Proclamation, that he would give a very bountiful reward unto him that would kill *Sphinx*, upon which occaſion the *CORINTHIAN Oedipus* came unto her, being mounted on a ſwift Courſer, and accompanied with ſome *Thebans* in the night ſeaſon, ſlew her. Others ſay, that

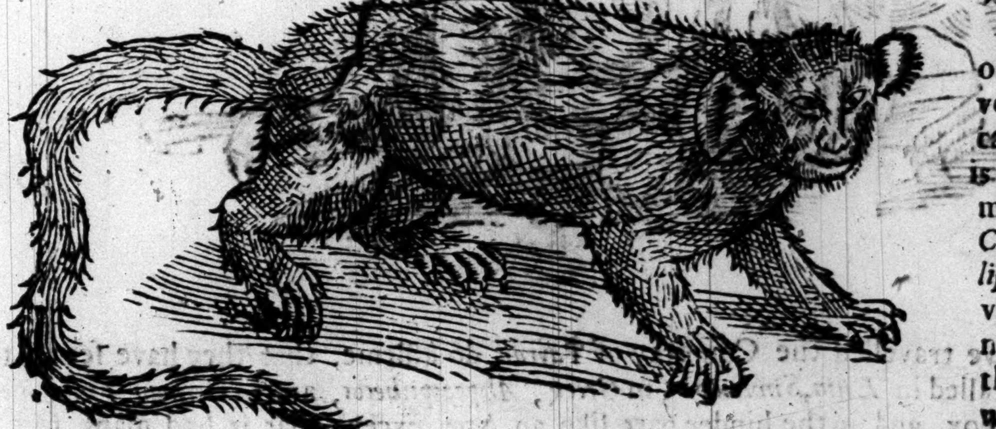
Œdipus by counterfeiting friendſhip, ſlew her, making ſhew to be of her faction; and *Pauſanias* ſaith, that the former Riddle was not a Riddle, but an Oracle of *Apollo*, which *Cadmus* had received, whereby his poſterity ſhould be inheritors of the *Theban* Kingdom; and whereas *Œdipus*, being the Son of *Laius* a former King of that Countrey, was taught the Oracle in his ſleep, he recovered the Kingdom uſurped by *Sphinx* his Siſter, and afterward unknown, maried his own Mother *Jocaſta*. But the true moral of this Poetical fiction, is by that learned *Alciatus* in one of his emblems deciphered, that her monſtrous treble-formed-ſhape, ſignified her luſtful pleaſure under a Virgins face, her cruel pride under the Lions claws, her winde-driven levity under the Eagles or Birds feathers, and I will conclude with the words of *Suidas* concerning ſuch Monſters, that the *Tritons*, *Sphinges*, and *Centaures*, are the images of thoſe things, which are not to be found within the compaſſe of the whole world.

Suidas.
Meaning this Poetical Sphinx.

The true *Sphinx* firſt deſcribed, is of a fierce though a tameable nature, and if a man do firſt of all perceive or diſcern theſe natural *Sphinges*, before the beaſt diſcern or perceive the man, he ſhall be ſafe; but if the beaſt firſt deſcry the man, then is it mortal to the man. Theſe *Sphinges* were of great account for their ſtrangeneſs: with their image did *Auguſtus* ſign all his Grants, Libels, and Epiſtles: afterward he left that, and ſigned with the image of *Alexander* the great, and laſt of all with his own. *Syclis* the King in the City of the *Boriſthenites*, had a fair houſe, about which there were *Sphinges* and *Gryphins* wrought out of white ſtone. At *Athens*, in the Temple *Parthenona*, there is deſcribed the contention betwixt *Pallas* and *Neptune*, about the earth, and the image of *Pallas* made of Ivory and gold, hath in the midſt of her ſhield the picture of a *Sphinx*. *Amaſis* the King of *Egypt*, built in the porch of *Pallas*, an admirable work called *Sai*: where he placed ſuch great *Coloſſes* and *Andro-Sphinges*, that it was afterward ſuppoſed he was buried therein, and was lively to be ſeen imputrible. To conclude, the *Egyptians* in the porches of their Temples painted a *Sphinx*, whereby they inſinuated that their divine wiſdom was but dark and uncertain, and ſo covered with fables, that there ſcarce appeared in it any ſparkles or footſteps of verity.

The nature of the Sphinx.
Suetonius.
The uſe of Sphinges.
Herodotus.
Pauſanias.
Herodotus.

Of the SAGOIN, called GALEOPITHECUS.



THis figure of the *Sagoin*, I received of *Peter Cordenberg*, a very learned Apothecary at *Antwerpe*, wch is three times as big as my picture, and *John Cay* that famous *Engliſh* Doctor hath advertiſed me, that it no way reſembleth the *Sagoin* it ſelf, which is not much greater then a Rat, a little Conny, or a young Hedghog; for he had ſeen ſeveral ones of that bigneſs, of a griſſeld colour, a neat beard, and ſomewhat aſh-coloured, a tail like a Rat, but hairy; the feet of a Squirrel, and the face almoſt like a Martine, or Satyre, a round ear, but very ſhort and open, the hair black at the root, and white at the end, and in other conditions like a Munkey. They are much ſet by among women, and by the *Braſilians* where they are bred and called *Sagoins*, it being very probable that they are conceived by a ſmall Ape and Weaſell, for in that Countrey, by reaſon of the heat thereof, there are many ſuch unnatural commixtions. It is a nimble, lively, and quick ſpirited beaſt, but fearful; it will eat white-bread, Apples, Sweet-grapes, dryed in the Sun, Figs or Pears. There was one of them at *Antwerpe* ſold for fifty Crowns. In France they call a *Sagoin* a little beaſt not much bigger then a Squirrel, and not able to endure any cold. Some other affirme that a *Sagoin* is a bearded creature, but without a tail, of an aſh-colour, not much bigger then a fiſt; but of this beaſt there is not any author writeth more then is already rehearſed.

The quality.
Colour.
Parts.
Procreation of Sagoins.
Their meat.
The price of a Sagoin.

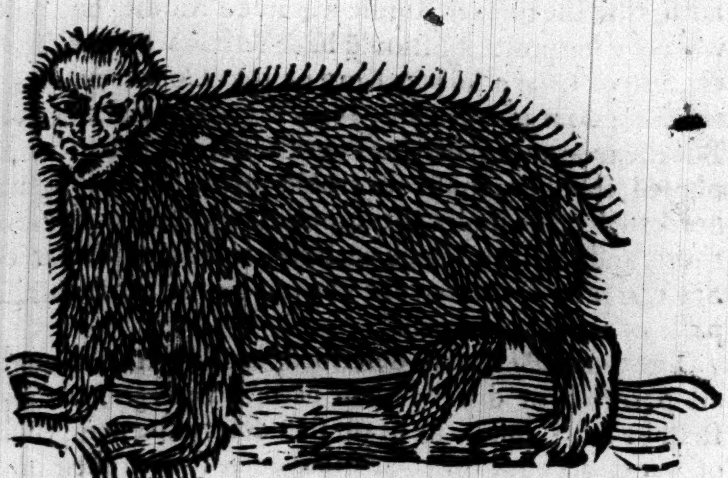
Of the Bear-Ape ARCTOPITHECUS.

THere is in *America* a very deformed beaſt which the inhabitants call *Haut* or *Hauti*, and the *Frenchmen*, *Guenon*, as big as a great *African* Munkey. His belly hangeth very low, his head and face like unto a childs, as may be ſeen by this lively picture, and being taken it will ſigh like a young child. His skin is of an aſh-colour, and hairy like a Bear; he hath but three claws on a foot, as long as four fingers, and like the thornes of Privet, whereby he climeth up into the higheſt trees, and for the moſt part liveth of the leaves of a certain tree being of an exceeding height, which the *Americans* call *Amahut*, and thereof this beaſt is cal-

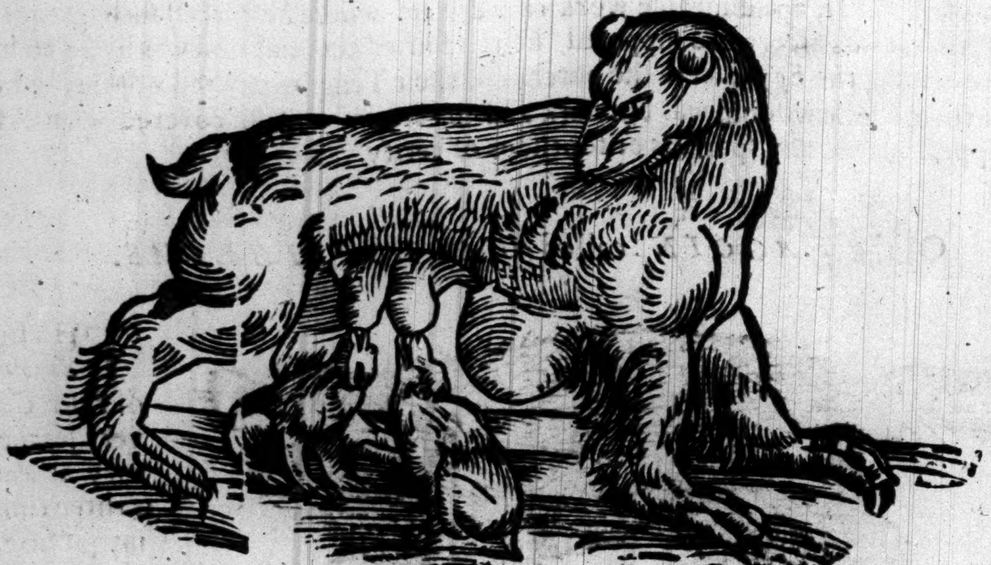
Thevetus.
Of the name.
His parts.

led *Haut*. Their tail is about three fingers long, having very little hair thereon; it hath been often tried, that though it ſuffer any famine, it will not eat the fleſh of a living man; and one of them was given me by a *Frenchman*, which I kept alive ſix and twenty dayes, and at the laſt it was killed by Dogs, and in that time when I had ſet it abroad in the open aire, I obſerved, that although it often rained, yet was that beaſt never wet. When it is tame it is very loving to a man, and deſirous to climb up to his ſhoulders, which thoſe naked *Americans* cannot endure, by reaſon of the ſharpeneſs of his claws.

A ſecret in Nature.



Of the *SIMIVULPA*, or *Apiſh-Fox*.



Piſonius.
Gillius.
The deſcription.

THoſe which have travelled the Countrey of *Payran*, do affirme, that they have ſeen a four-footed beaſt, called in *Latin*, *Simivulpa*, in *Greek*, *Alopecopithecos*, and in *German*, *Fuchſaffe*: in the forepatt like a Fox, and in the hinder part like an Ape, except that it had mans feet, and ears like a Bat, and underneath the common belly, there was a skin like a bag or ſcrip, wherein ſhe keepeth, lodgeth, and carryeth her young ones, untill they are able to provide for themſelves, without the help of their dam; neither do they come forth of that receptacle, except it be to ſuck milk, or ſport themſelves, ſo that the ſame under-belly is her beſt remedy againſt the furious Hunters, and other ravening beaſts, to preſerve her young ones, for ſhe is incredibly ſwift, running with that carriage as if ſhe had no burthen. It hath a tail like a Munkey: there was one of them with three young Whelpes taken and brought into a ſhip, but the Whelps died quickly: the old one living longer was brought to *Sivill*, and afterward to *Granado*, where the King of *Spain* ſaw it, which ſoon after by reaſon of the change of aire and incertainty of diet, did alſo pine away and die. The like things doth *Cardan* report of a beaſt called *Chiurca*, in *Hiſpania Nova*, and *Stadinius* of a *Survoy* in *America*: but I conjecture that the former is this *Fox-Ape* called in *Greek*, *Alopecopithecos*, and of the *Germans Fuſchſaffe*, the latter the Female *Cynocephal*, which carryeth her womb wherein lie her young ones without her belly. There is a fiſh called *Glaucus*, whereof the male ſwalloweth up all the young ones when they are indangered by other, and afterward yeeldeth them forth again ſafe and ſound.

Ælianus.
A miraculous thing of a fiſh.

Of the *ASSE*.

Of the name and the reaſons thereof.
Varinus.

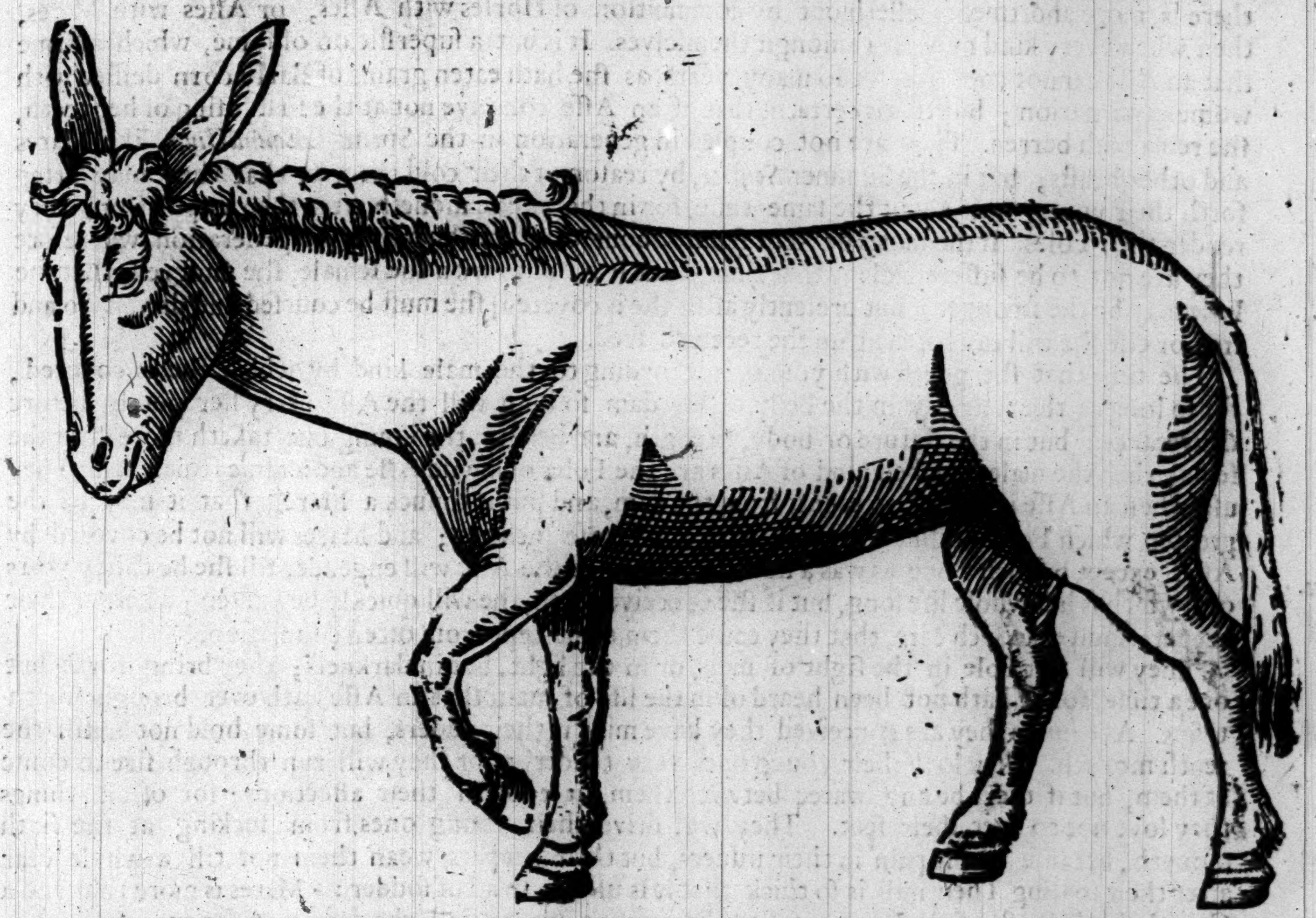
THe *Aſſe*, is called in *Latin*, *Aſinus*, in *Greek*, *Onos* and *Killos*, be reaſon of his labour in bearing burdens, and of ſome *Megamucos*, becauſe of his unpleaſant voice: Of others *Cochutous*, or *Canthon*, from whence cometh *Cantharus*, that is, a *Scarabee* or Flie, bred of the dung of Aſſes. The *Hebrew* call it *Chamor*, Deut. 5. and the *Perſians*, *Care*, the latter *Hebrews* do indifferently take *Gajedor*, *Tartak*, and *Caar* for an Aſſe; the *Italians*, *L'aſino*, the *Spaniards*, *Aſno*, the *French*, *Ung aſne*, the *Germans*, *Eſel*, *Mul*, *Mulle-reſel*, and the *Illyrians*, *Oſel*; the which Beaſt is intituled or phraſed with many Epithets among Poets; as ſlow, burthen-bearing, back-bearing, vile, cart-drawing, mill-labouring, ſluggiſh, crooked, vulgar, ſlow-paced, long-eared, blockiſh, braying, idle, devil-haired, filthy, ſaddle-bearer, four-foot, unſavoury, and a beaſt of miſerable condition; beſides many other ſuch titles in the Greek. Yet this ſilly beaſt hath among the Aſtronomers found more favour, for in the ſign *Cancer* there are two Stars called the two Aſſes, placed there as ſome ſay, by *Bacchus*, who in his fury which *Juno* laid upon him, travelled to the *Dodonean* Temple of *Apollo* to recover his wits, by the counſel of the Oracle, came to a certain lake of water, over which he could not paſſe, and meeting there two Aſſes, took one of them, upon whoſe back he was ſafely carried over drie-foot. Afterward, when he had recovered his wits, in thankfulneſs for that good turn, he placed the two Aſſes amongſt the ſtars.

Epithets of an Aſſe.

Pliny.

Aſſes in celeſtial ſigns.

Hyginus.



Howſoever this may be a fabulous commendation of this beaſt, yet holy Writ teacheth us, that an Aſſe ſaw an Angel, and opened his mouth in reproof of his maſter *Balaam*: and our moſt bleſſed Saviour rode on an Aſſe to *Jeruſalem* to ſhew his humility: and *Sampſon* out of the jaw-bone of an Aſſe, quenched his thirſt. *Apuleius* in his eleven books of his golden Aſſe, taketh that beaſt for an Emblem, to note the manners of mankind; how ſome by youthful pleaſures become beaſts, and afterward by timely repentant old-age, are reformed men again: Some are in their lives Wolves; ſome Foxes, ſome Swine, ſome Aſſes, and ſo other may be compared to other beaſts: and as *Origen* ſaith, only by pleaſure is a man a horſe or Mule, when a beaſtly ſoul liveth in a humane ſhape. This world is unto them as an inchanted cup of *Circes*, wherein they drink up a portion of oblivion, error and ignorance; afterwards brutizing in their whole life, till they taſte the Roſes of true ſcience and grace inlightning their minds, which is their new recovery of humane wit, life, and underſtanding.

Numb. 22.

Morals of the diſcourſes of Aſſes.

Proclus.

Beroaldus.

Aſſes are bred in *Arcadia*, wherefore proverbially, the beſt Aſſes are ſignified by the *Arcadian* Aſſe, and the greateſt Aſſes by the *Arcarnican* Aſſe. In *Timochain* in *Perſia*, are very beautiful Aſſes, whereof one hath been ſold for thirty pounds of ſilver. Likewiſe in *Rea*, in *Italy*, in *Illyria*, *Thracia*, and *Epirus*, there are Aſſes but very ſmall ones, although all other Cattel there are very large. In *India* among the *Pſilians*, they are no greater then Rams, and generally all their Cattel are of a very ſmall growth. In *Scythia*, *Pontus*, *Celta*, and the regions confining them, are no Aſſes bred, by reaſon of extremity of cold, for Aſſes are very impatient of cold. In *Myſia* there are alſo aſſes; but their flanks are crooked, and indented as if they were broken; whereupon a proverbial common ſpeech ariſeth (one having a broken flanke) for a *Myſian* Aſſe.

Countreys breeding Aſſes.

Paul. Venet.

Pondera.

Ælianus.

Aſſes are ingendred both by their own kind, and alſo by horſes, for they choſe ſtallions and put them to their Aſſes, who have large bodies, well-ſet legs, ſtrong necks, broad and ſtrong ribs, brawny and high creaſts, thighes full of ſinews, and of black or flea-bitten colour (for a Mouſe-colour is not approved) wherefore he that will have a good flock of Aſſes, muſt look that the male and female be ſound, and of a good age, that they may breed long time, and out of a good Seminary, as of *Arcadia* or *Rea*: for as the beſt Lampreyes are in *Sicilia*, and the delicate fiſh *Helops* in *Rhodes* and

Their breed.

Palladius.

not elſewhere ; ſo are beſt Aſſes in thoſe forenamed places. When they make choiſe of a Stallion, they *Abſirtus.* look principally that he have a great head. An Aſſe is more deſirous of copulation then an Horſe, and both male and female do couple at thirty moneths, although it prove not untill three years, or *Ariſtotle.* three and a half. Men ſay that *Anna* the father in law of *Eſau*, did firſt invent the copulation of *Pliny.* Horſes and Aſſes together ; for as a Horſe doth cover a ſhe Aſſe, ſo an Aſſe will cover a Mare, and an Aſſe will ſooner fill the luſt of a Mare then a Horſe.

Pliny. If a Horſe cover a female Aſſe which hath been entred by a male Aſſe, he cannot alter the ſeed of the Aſſe : but if an Aſſe cover a Mare which a Horſe hath formerly entred, he will deſtroy the ſeed *Leonicenus.* of the Horſe, ſo that the Mare ſhall ſuffer abortment, by reaſon that the ſeed genital of an Aſſe is more frigid then an Horſes. The Mares of *Elis* cannot at all conceive by Aſſes copulation, and there is more abortments falleth out by commixtion of Horſes with Aſſes, or Aſſes with Mares, then when every kind mingleth amongſt themſelves. It is but a ſuperſtition of ſome, which affirme *Pliny.* that an Aſſe cannot conceive for ſo many years, as ſhe hath eaten grains of Barly corn defiled with *Ariſtotle.* womens purgation ; but this is certain, that if an Aſſe conceive not at the firſt loſing of her teeth, ſhe remaineth barren. They are not coupled in generation in the Spring *Æquinoctium*, like Mares and other beaſts ; but in the Summer *Solſtice*, by reaſon of their cold natures, that they may bring forth their young ones about the ſame time, for in the twelfe moneth after their copulation, they render their Foles. If the males be kept from labour they are the worſe for generation, wherefore *Ariſtotle.* they are not to be ſuffered idle at that time ; but it is not ſo with the female, ſhe muſt reſt, that the *Varro.* Fole may be the ſtronger : but preſently after ſhe is covered, ſhe muſt be courſed and driven to and fro, or elſe ſhe will caſt forth again the received ſeed.

Pliny. The time that ſhe goeth with young, is according to the male kind by which ſhe is covered, for ſo long as the male lay in the belly of his dam, ſo long will the Aſſe carry her young before deliverance : but in the ſtature of body, ſtrength, and beauty, the young one taketh more after the female then the male. The beſt kind of Aſſes are the Foles of a wild Aſſe and a tame female Aſſe. They uſe when an Aſſe is foaled, to take it from the dam, and put it to ſuck a Mare, that it may be the *Pliny.* greater, which Fole is callid *Hippothela*, that is, a Horſe ſuckling ; and Mares will not be covered by *Ælianus.* Aſſes, except by ſuch a one as was a horſe-ſuckling. A ſhe Aſſe will engender till ſhe be thirty years old, which is her whole life long, but if ſhe conceive often, ſhe will quickly be barren ; whereof their keepers muſt take ſuch care, that they cauſe them to be kept from often copulation.

They will not Fole in the ſight of man, or in the light, but in darkneſs ; they bring forth but one a time, for it hath not been heard of in the life of man, that an Aſſe hath ever brought forth twins. As ſoon as they are conceived they have milk in their udders, but ſome hold not untill the tenth moneth. They love their young ones very tenderly, for they will run through fire to come at them, but if there be any water betwixt them, it cooleth their affections ; for of all things they love not to wet their feet. They will drive their young ones from ſucking at the ſixth moneth, becauſe of the pain in their udders, but their keepers wean them not till a whole year after their foaling, Their milk is ſo thick that it is uſed in ſtead of ſodder : a Mares is more thin, and a Camels is thinneſt of all. It is mortal to their young ones to taſt the dams milk for two dayes after their foaling, for the food is ſo fat that it breedeth in their mouthes the *Coloſtracion* or *Beeſtings*.

Ælianus. Touching their ſeveral parts, they have teeth on either chap like a Man and a Horſe, an Aſſe and a Mule have 36 teeth, and joyned neer together : the bloud of Aſſes and Buls is the thickeſt of all other, *Abſirtus.* as the bloud of man is the thinneſt : His head is great and his ears long and broad : both male and *Pliny.* female loſe their fore-teeth in the thirtieth moneth of their age, and the ſecond to the firſt, in the ſixt moneth ; their third and fourth teeth are called *Gnomons*, that is, *Regulars*, becauſe by them there is a tryed rule to know their age ; and thoſe teeth alſo they loſe in the ſixt moneth. The heart of an Aſſe is great, as all other fearful beaſts have. The belly is uniform as in other beaſts that have a ſolid or whole hoof. It wanteth a gall, and hath two udders betwixt the thighes, the forepart of the back neer the ſhoulder is weakeſt, and there appeareth the figure of a Croſſe, and the *Plutarch.* hinder part neer the loins is ſtronger. The hoofs are whole and not parted : the *Stygian* water is ſo *Pliny.* cold that nothing can hold it, except the hoof of an Aſſe or Mule ; although *Ælianus* affirme, that *Ioan. Monach.* it cannot be contained but in the horns of *Scythian* Aſſes. Their tails are longer by one joint then a horſes (though not ſo hairy). They are purged with monethly courſes more then Sheep or Goats, and the urine of the female is more thin then the males. If an Aſſe was hindered by any diſeaſe from making water, certain ſuperſtitious perſons for the eaſe of the beaſt, muttered this charm :

Suidas. *Gallus bibit & non meiit, Myoxus meiit & non bibit* : that is,
The Cock drinketh and maketh not water,
The Dormouſe maketh water and never drinketh.

Their meat. They will eat Canes or Reeds, which to other beaſts is almoſt poiſon : wherefore in the old time *Philemon died with laughing when he ſaw an aſſe eat figs. Val. Max.* an Aſſe was dedicated to *Bacchus* as the Canes were ſacred unto him : and at the time of their copulation they give them herb *Baſill* to ſtir up their luſt : They will be ſatisfied with any never ſo baſe food, as chaffe, whereof there is abundance in every Countrey, young thornes and fruits of trees, twiges of Oſier, or a bundle of boughs to browſe upon : in ſo much as *Q. Hortentius* was wont to ſay, that he had more care that his Barbels ſhould not hunger in his fiſh-pools, then his Aſſes in *Roſea* : but the young ones newly weaned muſt be more tendered, for they muſt be fed with hay, chaffe or Barley, green corn, or barley bran. Aſſes will hardly drink but at watering places in their folds, or ſuch as they have been accuſtomed withall, and where they may drink without wetting their feet; and that which is more ſtrange, they cannot be brought to go over hollow bridges, through which the water appeareth in the chinks of the planks; and when in travail they are very thirſty, they muſt be unladen and conſtrained to drink; yea, *Herodotus* reporteth, that there are certain Aſſes among the *African* ſhepherds, which never drink. When they ſleep they lie at length, and in their ſleep conceive many forceable dreams, as appeareth by their often beating back their hinder legs, which if they ſtrike not againſt the vain aire but againſt ſome harder ſubſtance, they are for ever utterly lamed.

When the Aſſes of *Thuſcia* have eaten Hemlock, or an herb much like unto it, they ſleep ſo long and ſtrangely, that oftentimes the Countrey men begin to flea them, and on the ſuddain their skins half taken off and the other half on, they awake, braying in ſuch horrible manner, that the poor men are moſt dreadfully affrighted therewith. Their voice is very rude and fearful, as the Poet ſaid; *Mathеclus.*

Quirritat verres, tardus rudit, uncat aſſellus.

And therefore the *Grecians* to expreſs the ſame, haved faigned many new words, and call it *Ogkethmot*, as the *Latins*, *Rudere*; that is, to utter forth a voice in a baſe and rude manner. The Poets feign, that at that time when *Jupiter* came to war with the Gyants, *Bacchus* and *Vulcan*, the *Satyres* and *Sileni* aſſiſted and attended him, being carryed upon Aſſes. When the time came that the battell began, the Aſſes for very fear brayed moſt horribly, whereat the Gyants not being acquainted with ſuch ſtrange and unknown voices and cries, took them to their heels and ſo were overcome. *Eraſtothenes.*

In the ſacrifice of the Godeſſe *Vacuna*, an Aſſe was feaſted with bread, and crowned with flowers, hung with rich Jewels and Beytrels, becauſe (as they ſay) when *Priapus* would have raviſhed *Veſta* being aſleep, ſhe was ſuddenly awaked by the braying of an Aſſe, and ſo eſcaped that infamy. And the *Lampſaceni* in the diſgrace of *Priapus* did offer him an Aſſe. But this is accounted certain, that among the *Scythians* by reaſon of cold, an Aſſe is never heard or ſeen; and therefore when the *Scythians* ſet upon the *Perſians*, their Horſes will not abide the braying of Aſſes, wondring both at the ſtrangeneſs of an Aſſes ſhape, and rudeneſs of his cry: wherefore there are certain birds, reſembling in their chattering the braying of Aſſes, and are therefore termed *Onacratuli*. *Ovid.* *Lactantius.*

When an Aſſe dyeth, out of his body are ingendred certain Flies, called *Scurabees*. They are infeſted with the ſame diſeaſes that Horſes be, and alſo cured by the ſame meanes (except in letting of bloud) for by reaſon their veins be ſmall and their bodies cold, in no caſe muſt any bloud be taken from them. A good horſe-leach is a good Aſſe-leach.

Aſſes are ſubject to madneſs when they have taſted to certain herbs growing neer *Potnias*; as are Bears, Horſes, Leopards and Wolves: they only among all other hairy beaſts are not troubled with either tikes or lice, but principally they periſh by a ſwelling about the crown of their paſterne, or by a *Catarrhe* called *Malis*, which falling down upon their liver they die, but if it purge out of their noſtrils they ſhall be ſafe: and *Columella* writeth, that if ſheep be ſtabled where Mules or Aſſes have been houſed, they will incur the ſcab. There is great uſe made of the skins of Aſſes, for the *Germanes* do make thereof a ſubſtance to paint and write upon, which is called *Eſelſhut*. The *Arabians* have a cloth called *Meſha*, made of Aſſes and Goates hair, whereof the inhabitants of their deſerts make them tents and ſacks. It is reported that *Empedocles* was called *Colyſancmas*, becauſe when the *Agrigentines* were troubled with winds by hanging about their City innumerable Aſſe skins, he ſafeguarded them from the winds: whereupon ſome have thought (but falſly) that there was ſome ſecret in Aſſes skins, againſt outragious Tempeſtes. *Vegetius.*

The bones of Aſſes have been uſed for pipes, the Artificers made more reckoning of them then of the bones of Hartes, and therefore *Eſop* in *Plutarch* wondereth that ſo groſſe and dull a creature, ſhould have ſuch ſhrill and muſical bones; and the *Buſirites* called the Philoſophers *Naucratites*, becauſe they played muſick upon Aſſes bones, for they cannot abide the ſound of a trumpet, becauſe it reſembleth the voice of an Aſſe, who is very hateful to them for *Typhons* ſake. *Pliny.*

Mecenus allowed the fleſh of young Aſſes to be eaten, preferring it before the fleſh of wilde Aſſes, and this cuſtome alſo prevailed at *Athens*, where they did eat the fleſh of old Aſſes, which hurteth the ſtomach, having in it no good juice or ſweetneſs, and is very hard to be digeſted. In like ſort about the coaſts of *Alexandria*, men uſe to eat the fleſh of Aſſes, which begetting in their body much melancholick and aduſted humor, cauſeth them to fall into the *Elephantia* or ſpotted leproſie. *Galenus.*

Aſſes are tamed at three years old, and taught for thoſe buſineſſes which they muſt be applied unto; ſome for the mill, ſome for husbandry and the plough, ſome for burthens and carriage, ſome for the wars, and ſome for draught. Merchants uſe Aſſes to carry their wine, oil, corn, and other things to the ſea-ſide; wherefore the Countrey man maketh principal account of this beaſt for his carriage to and fro, being fit to carry both on his neck and on his back: with them they go to market with their wares, and upon them bring home their houſhold neceſſaries. *Collumella.*

——Tardè coſtas agitator aſelli,
Vilibus aut onerat pomis, lapidemq; revertens,
Incuſſum, aut atræ maſſam picis urbe reportat.

Pliny.
Mulis, equis, aſinis feriæ nullæ niſi, ſi in familiâ ſunt.

Ad hæc vehicula non nimio pondere trahit.

They grind in their mils and fetch home their corn, they plough their land, as in *Campania, Lybia*, and *Bœtia*, where the ground is ſoft, and in *Byzantium* that fruitful Countrey, which repayeth the husbandmans labor with increaſe of an hundred and fifty times more then the ſeed, and where in drie weather their ground is not arable with the whole ſtrength of Buls, yet after a little rain, one Aſſe in one end of a yoak, and an old woman at the other end, do eaſily draw the plough, and open the earth to ſow their ſeed: wherefore *Cato* ſaid merrily, that Mules, Horſes and Aſſes, keep no holy-dayes, except they be ſuch Aſſes as keep within doors. In like ſort they draw from place to place the carts of Bakers, or Carts laden with any other carriage, if it be not over great.

Strabo.

Ælianus.

Suidas.

Anatolius.

Hinc caput Arcadici nudam cute feriur aſelli, Tirrhenus fixiſſe Tages in limite ruris.

The people *Carmani* (by reaſon they want Horſes) uſe Aſſes in their wars, ſo alſo do the *Scaracori*, who never uſe them in mils or any ſuch baſe works, but upon them undertake all their martial perils. There was a cuſtome amongſt the *Cumani*, that when a Woman was taken in Adultery, ſhe was led to the Market, and there ſet upon a bare ſtone, afterwards ſhe was ſet upon a bare Aſſes back, and ſo carryed throughout the City, then brought back again to the former ſtone for a publick ſpectacle to all the City, whereby ſhe remained infamous all her life after, and was called *Onobatis*, that is, one that had ridden an Aſſe; and the ſtone whereupon ſhe ſtood, was accounted an unlucky, and an odious place for all poſterity. In like ſort among the *Parthians*, it was held a diſgraceful thing to ride or be carryed upon a bare Aſſes back. The dung of Aſſes is pretious for a garden, eſpecially for Cabages; and if an Apple tree be dying, it may be recovered by waſhing it in Aſſes dung by the ſpace of ſix dayes; and ſome have uſed to put into Gardens the skull of a Mare or ſhe Aſſe that hath been covered in copulation, with perſwaſion that the Gardens will be the more fruitful.

Suidas.

Aſſes are of very fooliſh conditions and ſlender capacity, but yet very tame, not refuſing any manner of burthen although it break his back: being loaded, it will not out of the way for any man or beaſt, and it only underſtandeth the voice of that man, with whom it is laboured, knowing alſo the way whereunto it is accuſtomed. ***Ammonianus*** was in ſuch love with an Aſſe, and holding him of ſo great a capacity, that he had one continually to hear his Lectures of Philoſophie. *Galen* affirmeth, that an Aſſe underſtandeth *genus, ſpecies & individuum*, becauſe if you ſhew him a Camell that never ſaw one before, he is terrified and cannot indure his ſight: but if he have been accuſtomed to ſuch a ſight, if you ſhew him never ſo many, he is not moved at them. In like ſort, he knoweth men in general, being not affraid of them, but if he ſee or hear his keeper, he knoweth him for his keeper or maſter.

Leo Afric.

There was a cunning player in *Africa*, in a City called *Alcair*, who taught an Aſſe divers ſtrange tricks or feats; for in a publick ſpectacle, turning to his Aſſe (being on a ſcaffold to ſhew ſport) ſaid, The great *Sultan* purpoſeth to build him an houſe, and ſhall need all the Aſſes of *Alcair* to fetch and carry wood, ſtones, lime, and other neceſſaries for that buſineſs; preſently the Aſſe falleth down turneth up his heals into the air, groneth, and ſhutteth his eyes faſt, as if he had been dead: while he lay thus, the Player deſired the beholders to conſider his eſtate, for his Aſſe was dead; he was a poor man, and therefore moved them to give him money to buy another Aſſe. In the mean time having gotten as much money as he could, he told the people he was not dead, but knowing his maſters poverty, counterfeited in that manner, whereby he might get money to buy him provender, and therefore he turned again to his Aſſe and bid him ariſe, but he ſtirred not at all. Then did he ſtrike and beat him ſore (as it ſeemed) to make him ariſe, but all in vain, the Aſſe lay ſtill.

Then ſaid the player again, our *Sultan* hath commanded that to morrow there be a great triumph without the City, and that all the noble women ſhall ride thither upon the faireſt Aſſes, and this night they muſt be fed with Oates, and have the beſt water of *Nilus* to drink. At the hearing whereof, up ſtarted the Aſſe, ſnorting and leaping for joy: then ſaid the Player, the Governor of this Town hath deſired me to lend him this my Aſſe for his old deformed wife to ride upon; at which words the Aſſe hangeth down his ears, and underſtanding like a reaſonable creature, began to halt as if his leg had been out of joint; why, but ſaid the Player, had thou lifer carry a fair young Woman? The Aſſe wagged his head in token of conſent to that bargain, go then (ſaid the player) and among all theſe fair Women, chuſe one that thou mayeſt carry; then the Aſſe looketh round about the Aſſembly, and at laſt went to a ſober woman and touched her with his noſe, whereat the reſidue wondered and laughed, ſhutting up the ſport, with crying out, ***An Aſſes Woman, An Aſſes Woman***, and ſo the Player went unto another Town.

Ælianus.

Ælianus.

Such things do ſerve to teach us that Aſſes are not altogether indocible, beſides in their own nature they know how to refreſh themſelves in their wearineſs, by wallowing on the ground, and being overcome with melancholy humor, they naturally look for the hearb *Ceterach* or *Finger-fearne* to cure them. When the Aſſes of *Mauruſium* are bound to a journey, they ſet forward ſo faſt, that a man would think they rather flew then ran; but being overwearyed they are ſo abaſed, that they ſend forth tears, and then are they drawn at Horſes tails to their journeys end.

The Aſſe is never at peace with the Crow, becauſe it longeth for the Aſſes eyes, likewiſe the bird *Salem*, for when the Aſſe cometh to the thornes, to rub himſelf where the ſaid bird buildeth her neſt, the Aſſe ſpoileth it, wherefore the ſaid bird maketh continual aſſault upon him. In like ſort the *Colota* or *Stellio*, for it ſleepeth in the mangers, and creepeth up into the Aſſes noſe to hinder him from eating.

The Wolf is alſo an enemy to the Aſſe, for he loveth his fleſh, and with ſmall force doth he *Ælianus.* compaſſe the deſtruction of an Aſſe, for the blockiſh Aſſe when he ſeeth a Wolf, layeth his head on his ſide, that ſo he might not ſee, thinking that becauſe he ſeeth not the Wolfe, the Wolfe cannot ſee him; but the Wolfe upon this advantage ſetteth upon the beaſt on the blind ſide, and eaſily deſtroyeth the courageleſs Aſſe. Another argument of an Aſſes ſtupidity, is that he careth not for his own life, but will with quietneſs ſtarve, if meat be not laid before him. Wherefore it is apparent that when a dull Scholar not apt to learn, is bid to ſell an Aſſe to ſignifie his blockiſhneſs, is *Ariſtotle.* no vain ſentence; therefore they which reſemble Aſſes in their head, round forehead, or great face, are ſaid to be blockiſh; in their fleſhie face, fearful; in broad or great eyes, ſimple; and like to be mad in thick lips, and the upper hanging over the neather, Fools; and in their voice, contumelious and diſdainful. To conclude, the ancients have made many ſignifications of Aſſes and their ſhapes, making a man with an Aſſes head to ſignifie; Firſt, one ignorant of manners, hiſtories, and Countryes. Secondly, immoderate riot of ſtubborn perſons in Scripture is deciphered in an Aſſe. Thirdly, impudency and ſhameleſneſs, becauſe an Aſſe will not for any ſtripes forſake his own wayes. Fourthly, the *Jewiſh* people, who like Aſſes could not underſtand the evident truth of Chriſt in the plain text of Scripture, wherefore our Saviour ſecretly upbraided their dulneſs, when he rode upon an Aſſe. Fiftly, the *Egyptians* by an Aſſe, noted a man without all divine knowledge; wherefore they uſed to take an Aſſe and follow him with all deſpight, beating him from place to place till he brake his own neck; for they believed that an Aſſe was poſſeſſed of a Devil. Sixtly, Indocibility, by an Aſſe bridled. Seventhly, the ſnares of flatterers; for their Prieſts ſet an Aſſe between flowers and ointments, neither of both partaining to an Aſſes skill; teaching thereby how mighty men fall by treachery of flatterers. Eightly, a Woman diſſembling her Pregnancy. Ninthly, by a man weaving a cord, and an Aſſe behind him biting it aſunder; they ſignifie, a painful husband and a prodigal wife. Tenthly, a good Vine-dreſſer, for when an Aſſe did bite of the branch of a vine, it was obſerved that the next year the Vine was more fruitful. Finally, baſe ſervility, trifling ſluggiſhneſs, good fortune, Tyrants, and fools, are Hierogliphically comprized under the diſcourſe of Aſſes.

Touching ſuch medicinal vertues as have been tried and found to be in the ſeveral parts of Aſſes, by learned and approved writers, now in the concluſion of this Hiſtory they ſhall be briefly remembred, and ſo this Narration be finiſhed.

A draught or two of the ſame water whereof an Aſſe or an Oxe hath drunk, will eaſe the head- *Marcellus.* ache, the forehead of an Aſſe tied to the fleſh of one that hath the falling evill, cureth him; and the brain of an Aſſe ſteeped in ſweet water and infumed in leaves, whereof taken for certain days, half an *Pliny.* ounce, eaſeth the falling evill: the number of which dayes cannot be leſs then thirty, but this is very ridiculous, that if a man hurt by a Scorpion, do whiſper his harme in the ear of an Aſſe, preſently the hurt ceaſeth. When one is vexed with a Quotidian Fever, with three drops of bloud out *Pliny.* of the vein of an Aſſes ear, put into eighteen ounces of water and drunk by the patient, eaſeth that pain.

The liver of an Aſſe burnt, driveth away venomed things, and the ſame dried and beat to powder, *Haly.* helpeth the Cough and ſhortneſs of breath, and roſted to be eaten, if it be eaten faſting it is againſt the falling evill. Other ſay, if it be mixed with *Opponax*, and inſtilled into the mouth forty days together, defendeth infants from the aforeſaid ſickneſs. Alſo the heart of a male black Aſſe, eaten *Pliny.* with bread at the evening, in the firſt or ſecond day of the Moon, is good againſt the falling evill. The liver dried with Parſely, and three Walnuts clenſed from the pill and put into hony, is mar- *Marcellus* vellous good for one that is liver ſick; the aſhes of it mixt with oil, taketh away Wens; and the *Avicen.* aſhes of the liver and the fleſh is good againſt the chapping, clefts, or ſliſters in the body, which come by cold: but *Dioſcorides*, whom I rather follow, attributeth both theſe virtues to the aſhes of the hoof. He that is ſick of the milt, may be holpt with the old milt of an Aſſe, if he eat thereof every day dryed and faſting, he ſhall find eaſe by it within three days. The ſame firſt dryed and *Sextus.* then ſteeped in water, maketh the dugs full of milk, ſo alſo doth the Spleen, and the Spleen with ſewet of a Bear, and oil made as thick as hony, by anointing the eye-lids therewith reſtoreth the hairs *Raſis.* which are wanting. The reins exenterated, bruiſed and put into new pure wine, do help the bladder, and ſtay the incontinency of the Urine. The ſame dried, burned, and beaten into very ſmall *Marcellus.* powder, whereof a nut ſhell full put into two cups of pure wine and drunk off, cureth the Strangury.

It is thought, that with the powder of the Aſſes genital, the hair may be made grow thicker: *Pliny.* and the ſame beaten with lead and oil, and annointing the head where gray hairs are ſhaven off, keepeth from more gray hairs. The ſtones of an Aſſe kept in ſalt and ſprinkled in a potion of Aſſes milk or Water, helpeth the falling evill. The Gall of an Aſſe or a Bull, either of them, ſeverally broke into Water, taketh away the ſpots in the face, if after the patients skin be pilled, he muſt keep himſelf from ſun and wind.

The bloud of an Aſſe ſtayeth the flux of bloud coming from the skin or films of the brain; and *Eſculapius.* two or three drops of the ſame drunk with wine, cureth the Quotidian Fever: the ſelf ſame thing *Pliny.* is reported of the bloud let out of the vein in the ear. The bloud of the Fole of an Aſſe with wine, *Dioſcorides.* *Raſis.* *Pliny.*

cureth the Kings evil. The froath or ſcum of *Nitre* with the fat of an Aſſe or the fat of a Sow, cureth the bitings of Dogs: and if there be any ſcars in the body, the fat maketh them of the ſame colour with the reſidue of the body. And if one vexed with the Falling evill, be annointed with the ſuet or fat of an Aſſe, it will eaſe them very much; likewiſe the marrow of Aſſes helpeth the Scabs from a man, and with the ſuet the places infected with Catarrhs, Leproſies, or Scars, receive their former colour; and the skin laid upon young Infants, maketh them without fear. And if the bill of a *Heron* wrapped in an Aſſes skin, be bound to ones forehead, it provoketh ſleep.

Trallianus. *Pliny.* *Galenus.* *Myrepſus.* *Aetius.*

A Palſie man will fall down if he taſte of the perfume made of the hairs of an Aſſe or Mule. The aſhes of the hairs of Aſſes, ſtayeth bleeding; and the ſame hath the more force if they be of a male, and be mixed with Vinegar and laid in wooll to the iſſue bleeding. The bones of an Aſſe broken and ſod, are very ſoveraign againſt the venom of a Sea-hair-fiſh. The powder of an Aſſes hoof drunk a moneth together, two ſpoonfuls at a time, helpeth the Falling evill very greatly: and the ſame mixed with oil, helpeth the Kings evill; and being put upon Kibes or Chil-blanes, cureth them. The hoofs of Aſſes burned and beaten to powder, given to them that have the Falling evill in drink, helpeth them ſpeedily; alſo a burned hoof is mingled with many medicines, to cure the ſwelling of the Navel in children; and the hoofs perfumed procure ſpeedy deliverance in travel of young, that the dead thing may come forth, otherwiſe it is not uſed, for it will kill the living young ones.

Galen.

The duſt thereof with the milk of on Aſſe, by annointing cureth the Scars and Webs of the eyes, and as *Marcellus* ſaith, only the parings of an Aſſes hoof ſcraped and mingled with a womans milk; and they ſay, that if an *Epileptick* man wear a ring made of an Aſſes hoof wherein is no blackneſs, it will preſerve him from falling. The powder of an Aſſes hoof burned and beaten, laid in Vinegar and made in little bals, and one of them put into the mouth and there held, helpeth the looſeneſs and pain in the teeth. There is a collection of certain hard matter about an Aſſes legs, called *Lichen*, which if it be burned and beaten, and put into old oil, will cauſe hairs to grow out of baldneſs, and it is of ſuch force, that if it be applyed to a womans cheek, it will produce the ſame effect, and mingled with Vinegar it raiſeth up the *Lethargike* man.

Marcellus. *Pliny.* *Archigenus.* *Pliny.*

And if a man take the Ring-wormes growing naturally on Aſſes legs, and ſhredding them into powder put them in Vinegar, it ſtayeth all pain in the head, which maketh one ſleepy. The fleſh of Aſſes ſod in pottage helpeth them that have the *Phthiſis* or diſeaſe of the Lungs, and there are ſome which preſcribe the taking of Aſſes fleſh, or the bloud of Aſſes mingled with Vinegar, to be taken forty days together againſt the falling evill. The milk of an Aſſe mingled with hony and drunk, looſneth the belly, and therefore *Hippocrates* gave it for a gentle purgation, being moiſter then any other kind of milk, and fitter to take down the belly. It will alſo eaſe the tooth-ach, if the teeth be waſhed in it, and faſten them that are looſe, being very good to waſh the teeth withal. *Galen* gave Aſſes milk mixt with hony, to one in a Conſumption when he came newly from a bath, and therefore it is given in Fevers *Hecticks*, and all conſuming diſeaſes, becauſe the ſubſtance of it is fitter for deterſion then nutriment: when the breſts are in pain, by drinking Aſſes milk they be holpt; and the ſame mingled with hony, cauſeth Womens purgation; by drinking Aſſes milk, an exulcerate ſtomach is relieved: likewiſe all other pains in the ſtomach, which come of ſadneſs or ſorrow, ſighing, and deſperation: and *Heraclides* gave Aſſes milk with Anniſeed to one that had his lights ſtopped, and it is likewiſe commended againſt the Cough, extenuation, ſpitting of bloud, Dropſie, and hardneſs of the Spleen, but it is not good for a weak head troubled with giddineſs or noiſe, yet will it looſen the hardneſs of the belly in a Fever.

Pliny. *Galenus.*

It is alſo privately uſed againſt eating of Morture, White-lead, Sulphur, and Quickſilver; and when a mans meat doth not neither nouriſh nor digeſt, let him drink Aſſes milk ſafely: and it is alſo good to gargarize in ſore chaps or throats. Likewiſe in a Fever when there is no head-ache. The ancient in old time gave Aſſes milk to children before meat, and for want thereof Goats milk; for ſore mouthes it muſt be gargarized. It is very profitable againſt the Colick and Blondy-flux, if hony be put thereto; looſneſs or deſire of ſtool is taken away by drinking Aſſes milk; the whay or milk of an Aſſe did *Hippocrates* preſcribe againſt the Conſumption of the reins or back; and the ſame with the root of a pomgranat againſt the looſeneſs and other diſeaſes of the belly to be drunk.

Pliny.

Alſo there are examples where the whay of Aſſes milk have helped the Gowt, both in hand and foot: ſweet water with Aſſes milk is wholeſome againſt poiſon of Hen-bane, and other poiſons, but it muſt be uſed new, or elſe ſoon after warmed: This milk will make womens skins whiter, wherefore *Poppea*, the wife of *Domitius Nero* carryed about with her in her progreſs fifty milch Aſſes, wherewith ſhe did uſe to bath her ſelf.

Dioſcorides. *Galen.* *Pliny.* *Marcellus.* *Dioſcorides.*

The Urine with the own dung, healeth ſtraight ſhooing, ſcabs in a man, and the roughneſs of the nails. It taketh away the ſcurffe of Oxen. It is given in drink, to cure them that have ache in their reins, and with *Pepper-wort* it is profitable againſt Suppurations and Apoſtems in the fleſh. If any be hurt by the Stars, waſh them in Aſſes ſtale, mingled with *Spiknard*: the ſame force hath it againſt cornes and all hardneſs or thickneſs of skin. The dung of Aſſes new with oil of Roſes, diſtilled warme into the ears, helpeth deafneſs; and puſhes or ſuddain boils of the head, are cured with the juice of Aſſes dung, and of Sea-onions beat to powder, and the fat of beef, layed to the boils like a plaiſter: both the dung of Aſſes and Horſes either raw or burnt mingled with Vinegar, reſtraineth bleeding both in Fluxes and Wounds, uſed like a plaiſter, being new and mingled with Vinegar; and for the bleeding at the noſe, ſnuffe in the aſhes of Aſſes dung burnt to powder. The dung of Aſſes cureth the Piles, and the ſame dried and moiſtened in wine being drunk of Cattel which are ſtung with Scorpions, cureth them if it be at graſſe; and it is found true by long experience, that the dung of an Aſſe rubbed, in quantity two ſpoonfuls, and taken every day, delivereth one from the falling evill. *Aetius.*

mitis prodeſt ex ubere ſuccus aſellæ,
Si tepido vino infundas ac mella piperque.

This is good againſt the gall and running over thereof, if it be mingled with warm wine, pepper, and hony. The *Syrians* call the dung of a young Fole which it firſt caſteſt up after the foling, *Polean*; and give it againſt the ſickneſs of the miſt.

In ſæpa decoctum colo magnopere prodeſt.

The ſame is good againſt the Colick and the Bloudy-flux. The juice of Aſſes dung, Aſſes milk, and ſweet wine, anointed on the ſick member, cureth the Gowt: and the ſame ſtayeth the flowres of women with child; the juice hereof cureth the cloſing up of the eyes in the night. The skin wherein the young Fole lyeth in the dams belly being ſmelled unto by him that hath the Falling evill, it eaſeth him. *Anaxilaus* hath reported, that if the excrements of a Mares copulation be burned, there will appear monſtrous ſhapes of Horſes heads. If a Horſe have a web in his eye, mingle together the milk of an Aſſe, the bloud of a Dove, and the dew of Cabages, and anoint him therewith: and there be ſome which take of the dirt where an Aſſe hath made water in the way, and therewith anoint the Scabs of ſheep for their recovery: but when one is ſtrucken with a Scorpion, the Aſſes dung muſt be preſently applyed, or elſe it profiteth nothing in that malady.

Of the *Hinnus*, *Innus*, and *Ginnus*, *Mannus*, *mannulus*, *Beſi* & *Burdones*, &c.

THere is no language beſides the *Greek* that have any words to expreſs theſe Beaſts, and the *Latins* have derived theſe termes from them. Theſe are beaſts of a ſmall ſize, as dwarſes among men, and therefore ſeldom ſeen in theſe parts parts of the world. They which are called *Himi*, are conceived of a Horſe, and a ſhe Aſſe, who although they take their denomination from the male, yet do they more reſemble the female. In ancient time, the males which were conceived of a Horſe and a ſhe Aſſe, were called *Hinnuli*, and likewiſe of an Aſſe and a Mare, *Muli*; ſo are the young ones of little Goats, Deer, Hares, and other like: although ſome take *Innuli* for the young Harts, and the *Himi* and *Hinnuli* for the breed of a Horſe and an Aſſe; ſo that there appeareth two kinds, and both of them tranſplanted out of other.

Cælius Rhod.
Columella.
Pliny.
Hermolaus.
Varro.

The *Hinnus* is leſſe then the Mule, but more ruddy, having ears like a Horſe, and a mane and tail like an Aſſe, lying in the womb before the foling twelve moneths like a Horſe, and are brought up like little Horſes, whoſe age is diſcerned by their teeth, and they are ſometimes procreated of a Horſe and a Mule, and becauſe of their aptneſs to beare, they are called *Burdones*, or elſe of *Bardus* by reaſon of their folly and ſlowneſs.

Nonius.
Perot.

Manni and *Mannuli* are very little low horſes, being very gentle and eaſie to be handled, being called alſo among the *Civilians*, *Burdi*. There is in *France*, not far from *Gratianopolis*, a kind of *Mules* which in the Countrey ſpeech are called *Iumar*, being bred of an Aſſe and a Bull, and in the *Helvetian* Alpes beyond *Curia*, about the Town *Speluga*, I have been ſincerely informed, that there was a Horſe conceived of a Bull and a Mare, and therefore *Scaliger* ſaith, that ſuch a fole is called *Hinnulus*, whereof he reporteth he had ſeen many, and he himſelf had two of them, and at that inſtant had only one female, betwixt whoſe ears there were two bony bunches about the bigneſs of half a Wal-nut, giving evident teſtimony by the forehead, that her father or *Syre* was a Bull; and ſome ſay that this kind want their upper teeth: and their underchap doth in a deformed manner ſtretch forth it ſelf beyond the upper, as it is in many fiſhes, being called of the *Gabala* and *Arverni*, *Beſi*: And at this day there is in the Court of *France* a certain beaſt which in the former part is like an Aſſe, and in the hinder a Sheep. In *Ferraria* among other ſtrange beaſts, they nouriſh dwarviſh Aſſes, of whom *Martial* made a *Diſtichon* to this effect, that they are not ſo high as a man, when he ſitteth on the ground.

Porphyrius.
Avergne & Lodcue Navent.

His tibi de mulis non eſt metuenda ruina:
Altius in terris pene ſedere ſoles.

For the *Innus*, and *Ginnus*, or *Hinnus*, they are conceived by a *Mule* and a *Mare*, which are very ſmall by reaſon of ſome diſeaſe the dam that beareth them hath in her belly: the word *Inis* ſignifying a young or new born Nephew, and is attributed to this kind of beaſts, becauſe they never exceed the quantity of a young fole. Both the *Mule* and the *Burdo* remain barren and never conceive, theſe neigh like a Horſe, and that brayeth like an Aſſe. A *Muſimon* is a ſhort Horſe, Aſſe, or Mule.

Albertus.
Promptuar.

Of the *Wild Aſſe.*

A Wild Aſſe, called of the *Latins*, *Onager*; of the *Hebrews*, *Arod* and Ere, and as *Sebaſtian Munſter* affirmeth, *Meroda* and *Arda*; in the *German* tongue it may be termed *Ein Waldeſell*, and the young ones are called *Laliſionis*.

Martial.

Dum tener eſt Onager, ſolaque laliſio matre
Paſcitur: hoc infans, ſed breve nomen habet.

Countrey of breed. Theſe wild Aſſes are not *Elks*, as ſome have reported of *Elks*, nor that *Oryx* which the ancient writers do conſtantly affirm to live in a continual thirſt, as for the moſt part wild Aſſes do. Of theſe Aſſes are great ſtore in *Phrygia*, *Lycaonia*, and *Africa*, and it is ſaid, that the *Saracen* King of *Tunis* in *Africk*, ſent unto *Ferdinand* King of *Naples*, a goodly great wild Aſſe, ſuch an one as hath not been ſeen in this part of the world.

Apollonius affirmeth, that he ſaw wild Aſſes in great plenty beyond *Catadupa* in *Egypt*; ſo are there many in *Canda*, an Iſland neer *Creet*: in *Perſis*, in *Aſia*, in *Madera*, and *Abaſia*, *Arabia* deſert, *Mauritania*, and *Armenia*. Pliny. *Calliſtus* reporteth that there are ſuch wild Aſſes in that region under the *Equinoctial* towards the Eaſt and South, of wonderful ſtature, their ſkins (beſide the uſual manner) being of divers colours, interlined variably with white and black, and the Zones and ſtrakes deſcending from the top of the back unto the ſides, and there divided by their winding and turning, make the foles appear of admirable variety.

Theſe Aſſes love the higheſt Mountains and rocks, as holy Scripture teacheth, Jer. 14. *The Aſſes ſtood in the high places and drew in the wind like Dragons*: which words gave occaſion to ſome to imagine, that wild Aſſes would quench their thirſt with the wind without water; whereas it is the manner of all wild beaſts, in extremity of thirſt, to gape wide and greedily draw in the cold refreſhing air, and they will not drink but of pure fountain water. They live in flocks and great companies together, but in deſolate places: the males going before the females, and commonly one male will lead and rule the whole flock of females, being exceeding ſwift, and fearful, and therefore do they often change their places of abode; and yet it is obſerved, that the wild Aſſes of *Licia* never go over the mountain that divideth them from *Cappadocia*.

Their copulation. They engender among themſelves, their females being much more luſtfull then the males, and therefore do the males obſerve and watch them with a jealous eye toward their own foles, eſpecially after they have conceived; and the female as warily avoideth the ſight of the male, eſpcially at the time of her foling; for if ſhe bring forth a female, the male receiveth it with all love, joy, and welcome; but if a male, then doth he with angry and envious countenance look upon it, taking it heavily that another male is bred, which in time may in the fathers place poſſeſs his dam; wherefore in a raging madneſs he falleth upon the fole, ſeeking by all his power to bite off his ſtones; the poor female although weakned with pain of delivery, yet helpeth her young one againſt the fathers rage, and like a Mother who ſeeing her Son ſlain in war, embraceth his bleeding corps, and cryeth out with doleful voice, tearing her cheeks and bleeding betwixt her breſts: ſo would you think this ſilly female Aſſe, to mourn for her fole, now ready to die by the Sires cruelty; ſaying, *O my husband why is thy aſpect ſo ireful? Why are thy eyes now become ſo bloudy, which even now were as white as light? Doſt thou look upon the face of that monſter Meduſa? which turneth men into ſtones; or doſt thou look upon ſome new hatched horrible Dragon, or the whelp of ſome Lion lately littered? Why wilt thou geld this our young one which nature hath given unto us both by procreation? O wretched beaſt that I am, which have conceived an unhappy fole by the fathers wickedneſs! O my poor and unhappy ſon, which for a jealous fear art deprived of thy natural parts, not by the claws of Lions (for that I would endure) but by the unnatural and more then hoſtile teeth of thy own father.*

Theſe wild Aſſes have good and ſtrong hoofs, their ſwiftneſs is compared to the wind, and in the time that they are hunted, they caſt backward with their heels ſtones with ſuch violence, as they pierce the breſts of them that proſecute them if they be not very wary. They are of a large, broad, tall and beautiful body; long ears, and a ſilver colour, (that is as I gheſſe) a bright cloud-colour, for it is but vain to imagine, that an Aſſe can be all white, for then were all the ancients deceived, which with one voice affirm, that he hath a black liſt on the back, at either ſide whereof are two white lines.

Ælianus. Albertus. Oppianus. Varro. Their food is only graſſe and herbs of the earth, whereby they grow very fat, their heart being the fatteſt part of their body, and they will not abide any fleſh-eating beaſt, eſpecially the Lion whom he feareth very much, for all theſe ſtrong beaſts devour and eat them. Theſe Aſſes are very fit for civil uſes, as for plowing and ſowing, for being tamed they never grow wild again, as other beaſts will, and they eaſily grow tame. Ælianus. It is obſerved, that the ſame being tamed, is moſt tame which before time was moſt wild. They love figs and meal above all things, wherefore the *Armenians* uſe to take a certain black fiſh bred in their waters which is poiſon, and covering it with meal the wild Aſſes come and lick thereof, and ſo are deſtroyed. The beſt of them are generated of a Mare and a wild Aſſe tamed, for they are the ſwifteſt in courſe, of hardeſt hoof, a lean body, but of a generous and untireable ſtomach. The *Indian* wild Aſſes have one horn in their forehead, and their body all white, but their head is red: So is there another beaſt in *India* very like a wild Aſſe, which the Inhabitants eat (as we have read) about the ſtraights of *Magellana*: When theſe Aſſes are hunted with Dogs, they caſt forth their fime or dung, with the ſavour whereof the Dogs are ſtayed while it is hot, and by that means the beaſt eſcapeth danger: but the Aſſes of *Mauritania* are very ſhort winded, and ſubject to wearineſs and ſtumbling, for which cauſe they are more eaſily taken, and the beſt of all are not ſo ſwift as a *Barbary* horſe; beſides their nature is, when they ſee a man to ſtand ſtone ſtill, crying, braying, and kicking, till you come at them, and when one is ready to take them, they take their heels and run away. The Inhabitants of *Arabia* Deſert, by many gins and other deceitful deviſes take them, and on horſeback follow them till they tyre, or can ſtrike them with their darts. Their fleſh being hot, doth ſtink and taſte like an other Aſſes, but boyled and kept two dayes hath a pleaſant taſte; yet doth it not breed good bloud, becauſe it is viſcous and hard to be concocted, although there be many which eat that, as alſo the fleſh of Panthers and other ſuch beaſts.

Phyles.
Pliny.
Ælianus.

Pliny teacheth that there is more vertue in the wild Aſſes milk and bones againſt venome and poiſon, then in the tame. Likewiſe, in the heel of an Aſſe, is a principal remedy againſt Apoſtemations and bunches in the fleſh, if it be applyed to the inner part of the thigh. The gall draweth out botches, and muſt be anointed upon impoſtumate ſcars. It is uſed alſo in Emplaſters againſt Saint *Antonies* fire, the leproſie, and ſwelling in the legs and guts. The fat with oil of herbe *Mary* by anointing the reins of the back, helpeth and eaſeth that pain which was engendred by wind. The ſpleen dryed to powder and drunk in wine or drink, is good againſt the ſickneſs of the ſpleen. The fleſh is good againſt the pain in the ridge and hip-bones: and *Galen* affirmeth, that the urine breaketh and diſſolveth the ſtone in the bladder. The aſhes of the hoof helpeth the falling evill, and mingled with oil, cureth the kings evill, and the looſeneſs of the hair. The marrow eaſeth the Gowt, and the dung mixed with the yolk of an egge and applyed to the forehead, ſtayeth bleeding: alſo the ſame curleth the hair if it be mingled with an Oxes gall and dryed: put into wine and drunk, cureth the ſting of a Scorpion: and *Zor* an *Hebrew* affirmeth very conſtantly, that if a man look into an Aſſes eye, it preſerveth the ſight, and hindereth the water that deſcendeth into the eye.

Medicines.
Milke.
Pliny.

Of the *Scythian* Aſſes.

THe Aſſes of *Scythia* have horns wherein it is reported that the *Stygian* water of *Arcadia* may be contained, although it will eat through all other veſſels be they never ſo hard. *Soſipater* brought of them to *Alexander* the great, who admiring the rareneſs, would not put them to any private uſe, but ſent them to *Delphos*, to be offered to *Pythias*; but that theſe can be properly called Aſſes, no man can defend, although *Herodotus* alſo affirm, that among the *Africans* called *Aratours*, there be Aſſes with horns.

Ælianus.
Lib. 4.

Of the *Indian* Aſſes.

IT is queſtionable whether the *Monoceros*, commonly called a *Unicorne*, the *Rhinoceros*, the *Oryx*, and the *Indian* Aſſe be all one beaſt or divers; for the *Vnicorn* and *Rhinoceros* have the ſame things attributed to them in ſtories, and differ in very few reports: but for the Aſſes of *India*, both *Ariſtotle*, *Pliny* and *Ælianus*, joyntly agree, that they differ from all other whole-footed beaſts, becauſe they have one horn in the forehead, and ſo alſo have the *Rhinoceros*, *Monoceros*, and *Oryx*, but the *Indians* call a *Unicorne*, *Cartazono*; and the horn ſo highly prized at this day, is thought to be of the *Rhinoceros*; but *Ælianus* and *Philes* acknowledge no other *Unicorne* then the *Indian* Aſſe, who in bigneſs equalleth a Horſe among the *Indians*, being all white on the body, but purple headed or red (as ſome ſay) black eyes, but *Volateranus* ſaith blew, having one horn in the forehead a cubit and a half long, whoſe upper part is red or bay, the middle black, and the neather part white, wherein the Kings and mighty men of *India* uſe to drink, adorning it for that purpoſe with ſundry bracelets, pretious ſtones, and works of gold, holding for truth that all thoſe which drink in thoſe horns, ſhall be freed from annoyance of incurable diſeaſes, as Convulſions, the Falling evill, and deadly poyſons.

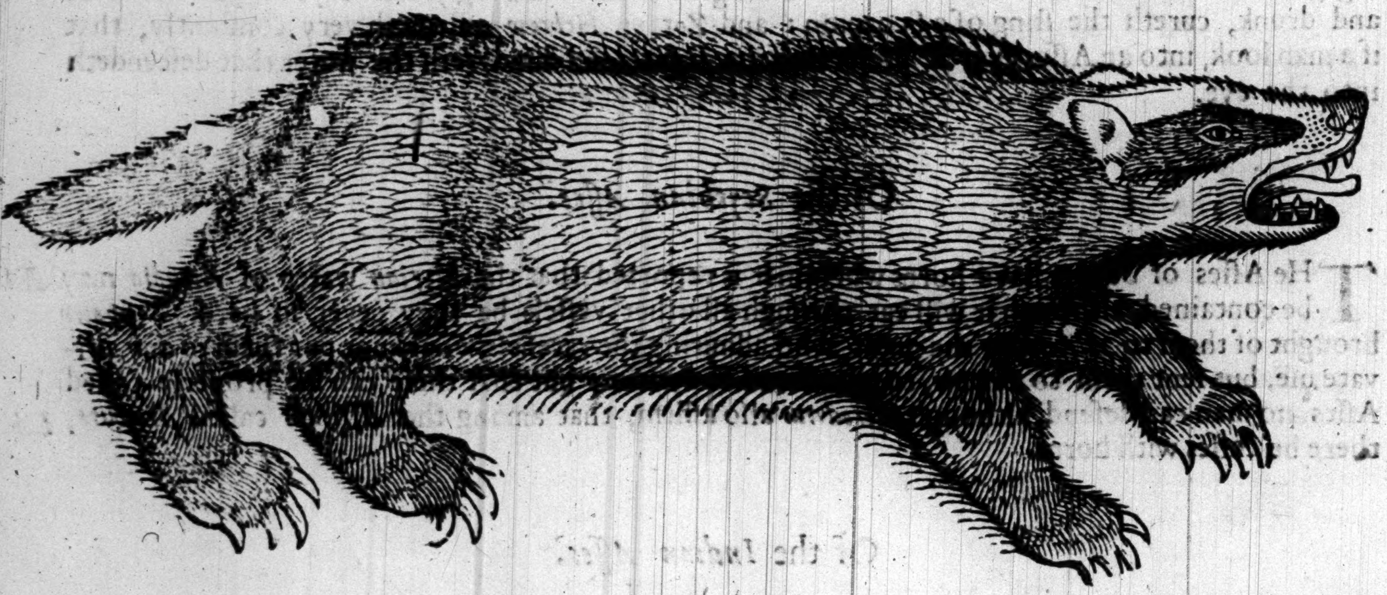
Theſe wilde Aſſes exceed all other, both in ſtature of body, and alſo ſwiftneſs of foot, for at the firſt, they ſet forth very gently, and afterward ſpeed their journey with better pace, ſo that it is very hard for any to follow them, but impoſſible to overgo them. The males take great pains in keeping their young ones, whom they continually watch and hide in the moſt remote and deſert places they can finde. When they are hunted, they keep their weak young ones behind them, and fight for them very furiouſly, neither fear they to encounter horſemen. They are ſo ſtrong, that no beaſt may ſtand before them, for they will receive the charge of Horſes with ſuch violence, that in their encounter they bite out their ſides and tear their guts out of their belly: for which cauſe they are dreadful to Horſes, who are moſt unwilling to joyn with them, for they never meet but they both periſh.

They fight with their heels, but their teeth are moſt dangerous, for what they apprehend in them they bring it clean away: and becauſe of this rage, thoſe which are of any years, can never be tamed. The great King of *India* doth once every year appoint all manner of fights both men and beaſts, wherein are wilde Buls, tame Rams, theſe wild Aſſes with one horn, *Hyænaes* and Elephants. To conclude, it is but a fable of *Volaterranus*, that ſaith, theſe Aſſes want a gall, for they have the bladder of the gall, a portion whereof drunk, cureth the falling evill.

Of the *ALBORACH* and *AXIS*.

THere are two other beaſts to be added to the end of this rank, namely the *Alborach* among the Turks, being a fair white beaſt like an Aſſe, whereupon the Turkiſh Prieſts blaſphemous idolaters, perſwade the ſilly Pilgrims of *Mecha*, that *Mahomet* was carryed up to heaven. The *Axis*, of which *Pliny* ſpeaketh, is a wilde beaſt, having a skin like the *Hinnulus* aforeſaid, but ſpred over with whiter ſpots, which is bred in *India*. *Bellonius* affirmeth, that he ſaw two of them in the Caſtle of *Cair*, a male and a female, and either ſex wanted horns, having long tails down to their mid-legs like Deer, and differ very little from Deer, ſaving in their large white ſpots and yellow colour, yeelding a much more clear and ſounding voice then a Deer, and the female thereof is ſmaller then the male. This beaſt is by idolatrous people, dedicated to their drunken god *Bacchus*.

Of the *BADGER*, otherwiſe called a *Brocke*, a *Gray*, or a *Bauſon*.



THe *Badger* could never find a *Greek name*, although ſome through ignorance have foiſted into a *Greek* Dictionary *Melis*, whereas in truth that is his *Latin* word, *Mele* or *Meles*, and ſo called, becauſe above all other things, he loveth hony, and ſome later writers call him *Taxus*, *Taſſus*, *Taxo*, and *Albertus Magnus*, *Daxus*. But whereas in the Scripture ſome tranſlate *Teſſon*, *Tahas*, or *Tachaſch*, and plurally *Techaſeim*, Badgers, yet is not the matter ſo clear, for there is no ſuch beauty in a Badgers skin, as to cover the Arke, or to make Princes ſhooes thereof: therefore ſome *Hebrews* ſay, that it ſignifieth an Oxe of an exceeding hard skin. *Onkelus* tranſlateth it *Saſgona*, that is, a beaſt skin of divers colours; *Symmachus* and *Aquila* a jacinct colour, which cannot be; but the *Arabians*, *Daraſch*, and the *Perſians*, *Aſthak*; yet it may be rather ſaid, that thoſe skins ſpoken of Exod. 25. Numb. 4. Ezek. 26. be of the *Lynx*, or ſome ſuch other beaſt: for *Tachaſch* cometh neer *Thos*, ſignifying a kind of Wolf not hurtful to men, being rough and hairy in Winter, but ſmooth in Summer.

The *Italians* call a Badger *Taſſo*, the *Rhetians*, *Taſch*; the *French*, *Tauſſon*, *Taixin*, *Taſſon*, *Teſſon*, and ſometime *Griſart*, for her colour: ſometime *Blareau*, and at *Paris*, *Bedevo*. The *Spaniards*, *Taſugo*, *Texon*; the *Germans*, *Tachs*, or *Daxs*; the *Illyrians*, *Gezwecz*.

Countrey of breed.
Celius Curio.
Diverſity of kinds.

Badgers are plentiful in *Naples*, *Sicily*, *Lucane*, and in the *Alpine* and *Helvetian* coaſts, ſo are they alſo in *England*. In *Lucane* there is a certain wilde beaſt, reſembling both a Bear and a Hog, not in quantity, but in form and proportion of body; which therefore may fitly be called in *Greek*, *Suarctos*, for a *Gray*, in ſhort legs, ears and feet, is like a Bear, but in fatneſs like a Swine. Therefore it is obſerved, that there be two kinds of this beaſt, one reſembling a Dog in his feet, which is, is cald *Canine*; the other a Hog in his cloven hoof, and is cald *Swiniſh*: alſo theſe differ in the faſhion of their ſnowt, one reſembling the ſnowt of a Dog, the other of a Swine: and in their meat, the one eating fleſh and carrion like a Dog, the other roots and fruits like a Hog, as both kinds have been found in *Normandy* and other parts of *France* and *Sicilie*. This beaſt diggeth her a den or cave in the earth, and there liveth; never coming forth but for meat and eaſement, which it maketh out of his den: when they dig their den, after they have entred a good depth for avoiding the earth out, one of them falleth on the back, and the other layeth all the earth on his belly, and ſo taking his hinder feet in his mouth, draweth the belly-laden Badger out of the cave, which diſburdeneth her cariage, and goeth in for more till all be finiſhed and emptied. The wily Fox never maketh a Den for himſelf, but finding a Badgers cave, in her abſence, layeth his excrements at the hole of the Den, the which when the *Gray* returneth, if ſhe ſmell (as the ſavour is ſtrong) ſhe forbeareth to enter as noiſome, and ſo leaveth her elaborate houſe to the Fox. Theſe Badgers are very ſleepy, eſpecially in the day time, and ſtir not abroad but in the night, for which cauſe they are called *Lucifugæ*; that is, *avoiders of the light*. They eat hony, and wormes, and hornets, and ſuch like things, becauſe they are not very ſwift of foot to take other creatures. They love Orchards, Vines, and places of fruits alſo, and in the autumn they grow therewith very fat.

A ſecret in their manner of digging.
Iſidorus.
Albertus.
Their meat.

They are in quantity as big as a Fox, but of a ſhorter and thicker body; their skin is hard, but rough and rugged, their hair harſh and ſtubborn, of an intermingled griſard colour, ſometime white, ſometime black, his back covered with black, and his belly with white, his head from the top thereof to the ridge of his ſhoulder, is adorned with ſtrakes of white and black, being black in the middle, and white at each ſide. He hath very ſharp teeth, and is therefore accounted a deep-biting beaſt. His back is broad, his legs (as ſome ſay) longer on the right ſide then on the left, and therefore he runneth beſt when he getteth to the ſide of a hill, or a cart-road-way. His tail is ſhort but hairy, and of divers colours, having a long face or ſnowt like the *Zibethus*: his forelegs being a full ſpan long, and the hinder legs ſhorter, ſhort ears and little eyes, a great bladder of gall, a body very fat betwixt the skin and the fleſh, and about the heart; and it is held that this fat increaſeth with the Moon, and decreaſeth with the ſame, being none at all at the change: his forelegs have very ſharp nails, bare and apt to dig withall, being five both before and behind, but the hinder very ſhort ones and covered with hair. His ſavour is ſtrong, and is much troubled with lice about his ſecrets; the length of his body from the noſe which hangeth out like a Hogs noſe, to the tail or rump, is ſome thirty inches and a little more, the hair of his back three fingers long; his neck is ſhort and like a Dogs: both male and female have under their hole another outwardly, but not inwardly in the male. If ſhe be hunted out of her Den with Hounds, ſhe biteth them grievouſly if ſhe lay hold on them, wherefore they avoid her carefully, and the Hunters put great broad collars made of a Grayes skin about their Dogs neck, to keep them the ſafer from the Badgers teeth: her manner is to fight on her back, uſing thereby both her teeth and her nails, and by blowing up her skin above meaſure after an unknown manner, ſhe defendeth her ſelf againſt the ſtrokes of men, and the teeth of Dogs: wherefore ſhe is hardly taken, but by deviſes and gins for that purpoſe invented; with their skins they make quivers for arrows, and ſome ſhepheards in *Italy* uſe thereof to make ſacks, wherein they wrap themſelves from the injury of rain.

Cardanus.
Her defence againſt Hunters and their dogs.

In *Italy* and *Germany* they eat Grays fleſh, and boil with it pears, which maketh the fleſh taſt like the fleſh of a Porcupine. The fleſh is beſt in *September* if it be fat, and of the two kinds, the Swiniſh Badger is better fleſh then the other. There are ſundry vertues confected out of this beaſt; for it is affirmed, that if the fat of a Badger mingled with crude hony, and anointed upon a bare place of a horſe, where the former hairs are pulled off, it will make new white hairs grow in that place: and it is certain (although the *Grecians* make no reckoning of Badgers greaſe, yet) it is a very ſoveraign thing to ſoften, and therefore *Serenus* preſcribeth it to anoint them that have Fevers or Inflamations of the body,

Badgers eaten.
Platina.
Medicine made of Badgers.
Gratius.
Braſavolus.

Nec ſpernendus adeps dederit, quem beſtia melis.

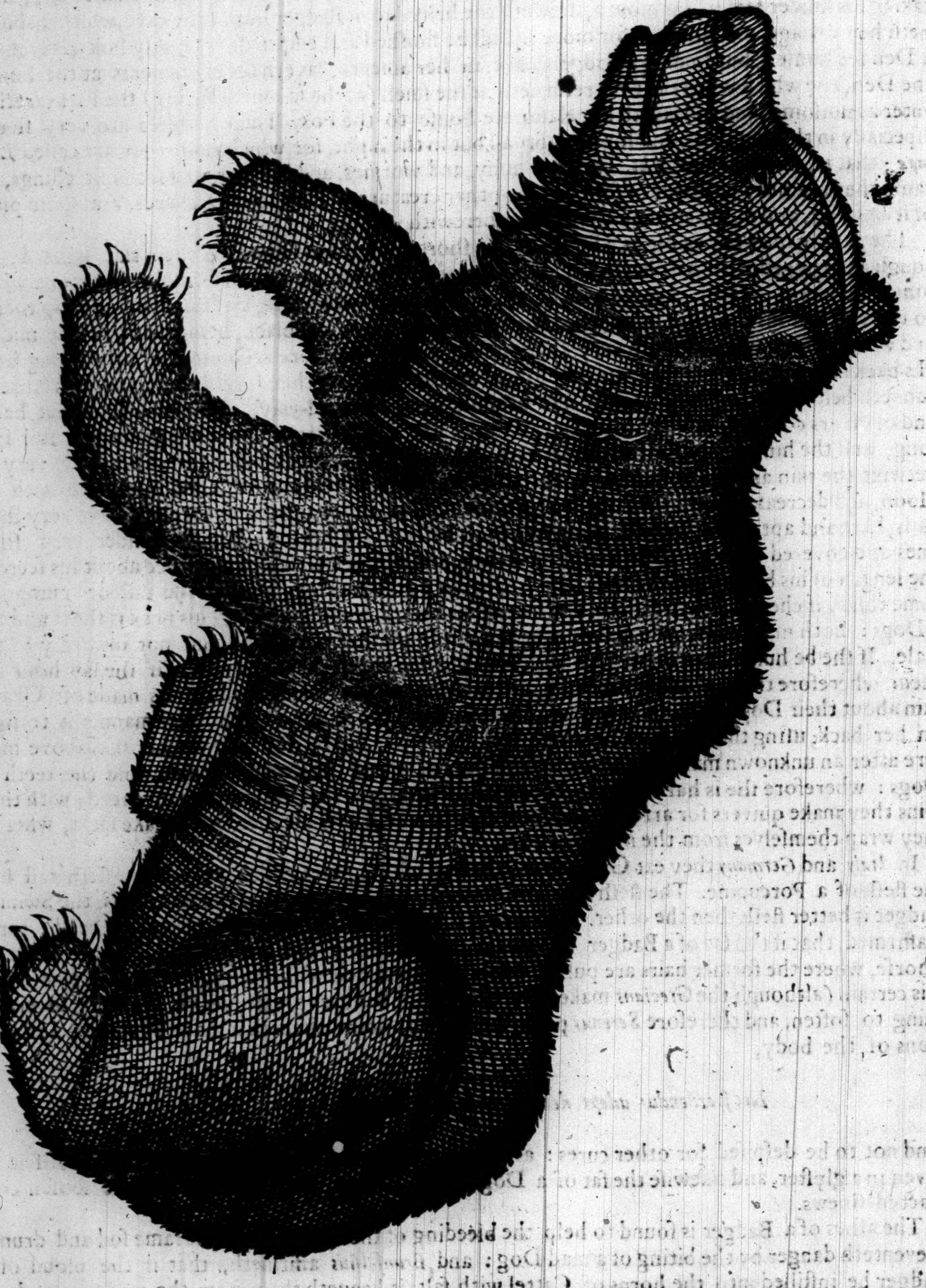
Albertus.

And not to be deſpiſed for other cures: as for example, the eaſing of the pain of the reins if it be given in a glyſter, and likewiſe the fat of a Dog and a Badger mingled together, do looſen contracted ſinews.

The aſhes of a Badger is found to help the bleeding of the ſtomach, and the ſame ſod and drunk, preventeth danger by the biting of a mad Dog: and *Brunfelſius* affirmeth, that if the bloud of a Badger be inſtilled into the horns of Cattel with ſalt, it keepeth them from the murrain, and the ſame dryed and beat to powder doth wonderfully help the Leproſie. The brain ſod with oil eaſeth all aches; the liver taken out of water, helpeth ſwellings in the mouth; and ſome affirm, that if one wear ſoles made of Badgers skins in their ſhooes, it giveth great eaſe unto the Gowt. The biting of this beaſt is venemous, becauſe it feedeth upon all venemous meats which creep upon the earth, although *Arnoldus* be of a contrary judgement: and of this beaſt I can report no other thing worth the noting, ſave that the Noble family of the *Taxons* in *Ferraria*, took their name from this creature.

Bovillus.
Braſavolus.

Of the BEAR.



Of the name.

A Bear is called in the *Hebrew*, *Dob*, and plurally *Dubim*; of the *Arabians*, *Dubbe*; of the *Chaldeans*, *Duba*, *Aldub* and *Daboubæ*; of the *Grecians*, *Arctos*; of ſome *Daſyllis*, becauſe of the roughneſs of his hair; of other *Beiros*, and *Monios*, ſignifying a ſolitary Bear. The *Latins* call him *Urſus*, which ſome conjecture to be *tanquam orſus*, ſignifying that it is but begun to be framed in the dams belly, and perfected after the littering thereof. The *Italians* call it *Orſo*, ſo alſo the *Spaniards*; the *French*, *Ours*; the *Germans*, *Bear*, and *Beer*; the *Bohemians*, *Nedwed*; the *Polonians*, *Vuluver*: and the attributes of this beaſt are many among Authors, both *Greek* and *Latin*; as *Æmonian* Bears, armed, filthy, deformed, cruel, dreadful, fierce, greedy, *Calydonian*, *Erymanthean*, bloudy, heavy, night ranging, *Lybican*, menacing, *Numidian*, *Oſſean*, head-long, ravening, rigid and terrible Bear; all which ſerve to ſet forth the nature hereof, as ſhall be afterward in particular diſcourſed.

Epithets of the Bear.

First,

Of the kinds of Bears. *Agricola.* *Albertus.* *Olaus.*

Firſt, therefore concerning ſeveral kinds of Bears, it is obſerved, that there is in general two; a greater, and a leſſer; and theſe leſſer are more apt to clime trees then the other, neither do they ever grow to ſo great a ſtature as the other. Beſides there are Bears which are called *Amphibia*, becauſe they live both on the Land and in the Sea, hunting and catching fiſh like an *Otter* or *Beever*, and theſe are white coloured. In the Ocean Iſlands towards the North, there are Bears of a great ſtature, fierce and cruel, who with their fore-feet do break up the the hardeſt congealed Ice on the Sea, or other great Waters, and draw out of thoſe holes great abundance of fiſhes: and ſo in other frozen Seas are many ſuch like, having black claws, living for the moſt part upon the Seas, except tempeſtuous weather drive them to the Land.

A Formicarian Bear. *Cardanus.*

In the Eaſtern parts of *India*, there is a beaſt in proportion of body very like a Bear, yet indued with no other quality of that kind, (being neither ſo wild, nor ravenous, nor ſtrong) and it is called a *Formicarian* Bear; for God hath ſo provided, that whereas that Countrey is abundantly annoyed with the Emmets or Ants, that beaſt doth ſo prey and feed upon them, that by the ſtrength and vertuous humor of his tongue, the ſilly poor Inhabitans are exceedingly relieved from their grievous and dangerous numbers.

Countrey of breed. *Marcellinus.*

Bears are bred in many Countreys, as in the *Helvetian Alpine* region, where they are ſo ſtrong and full of courage, that they can tear in pieces both Oxen and Horſes, for which cauſe the Inhabitants ſtudy by all means to take them. Likewiſe there are Bears in *Perſia*, which do raven beyond all meaſure, and all other; ſo alſo the Bears of *Numidia*, which are of a more elegant form and compoſition then the reſidue;

Profuit ergo nihil miſero, quod cominus urſos
Figebat Numidas, Albena nudus arena.

And whereas *Pliny* affirmeth, that there are no Bears in *Africk*, he miſtook that Countrey for *Creet*, and ſo ſome ſay, that in that Iſland be no Wolves, Vipers, or other ſuch venemous creatures; whereof the Poets give a vain reaſon, becauſe *Jupiter* was born there: but we know alſo, that there be no Bears bred in *England*.

Volaterran.

In the Countrey of *Arabia*, from the Promontory *Dira* to the South, are Bears which live upon eating of fleſh, being of a yellowiſh colour, which do far excel all other Bears, both in activity or ſwiftneſs, and in quantity of body. Among the *Roxolani* and *Lituanians*, are Bears, which being tamed are preſents for Princes. *Ariſtotle* in his wonders reporteth, that there are white Bears in *Miſia*, which being eagerly hunted, do ſend forth ſuch a breath, that putrifieth immediately the fleſh of the Dogs, and whatſoever other beaſt cometh within the ſavour thereof, it maketh the fleſh of them not fit to be eaten: but if either men or dogs approach or come nigh them, they vomit forth ſuch abundance of phlegm, that either the hunters are thereby choked or blinded.

A ſecret in the natures of Bears.

Thracia alſo breedeth white Bears, and the King of *Æthiopia* in his *Hebrew* Epiſtle which he wrote to the Biſhop of *Rome*, affirmeth, that there are Bears in his Countrey: In *Muſcovia* are Bears, both of a Snow white, yellow, and dusky colour, and it hath been ſeen that the Noble womens Chariots drawn by ſix Horſes, have been covered with the skins of white Bears, from the paſtern to the head: and as all other creatures do bring forth ſome white, and ſome black, ſo alſo do Bears, who in general do breed and bring forth their young in all cold Countreys, ſome of a dusky and ſome of a brown black colour.

Luſt of Bears.

A Bear is of a moſt venereous and luſtful diſpoſition, for night and day the females with moſt ardent inflamed deſires, do provoke the males to copulation; and for this cauſe at that time they are moſt fierce and angry.

Gillius. A Hiſtory.

Philippus Coſſeus of *Conſtance*, did moſt confidently tell me, that in the Mountains of *Savoy*, a Bear carryed a young maid into his den by violence, where in venereous manner he had the carnal uſe of her body, and while he kept her in his den, he daily went forth and brought her home the beſt Apples and other fruits he could get, preſenting them unto her for her meat in very amorous ſort; but always when he went to forrage, he rouled a huge great ſtone upon the mouth of his den, that the Virgin ſhould not eſcape away: at length her parents with long ſearch, found their little Daughter in the Bears den, who delivered her from that ſavage and beaſtual captivity.

Time of their copulation.

The time of their copulation is in the beginning of Winter, although ſometime in Summer, (but ſuch young ones ſeldom live) yet moſt commonly in *February* or *January*. The manner of their copulation is like to a mans, the male moving himſelf upon the belly of the female, which lyeth on the earth flat upon the back, and either embraceth other with their fore-feet: they remain very long time in that act, inaſmuch as if they were very fat at their firſt entrance, they disjoin not themſelves again till they be made lean.

Pliny. A ſecret. Honor to the female.

Immediately after they have conceived, they betake themſelves to their dens, where they (without meat) grow very fat (eſpecially the males) only by ſucking their fore-feet. When they enter into their den, they convey themſelves in backwards, that ſo they may put out their foot-ſteps from the ſight of the hunters. The males give great honor to the females great with young, during the time of their ſecreſie, ſo that, although they lie together in one cave, yet do they part it by a diviſion or ſmall ditch in the midſt, neither of them touching the other. The nature of all of them is, to avoid cold, and therefore in the Winter time do they hide themſelves, chuſing rather to ſuffer famine then cold; lying for the moſt part three or four months together and never ſee the light, whereby their guts grow ſo empty, that they are almoſt cloſed up and ſtick together.

Avoiding of cold.

Time of bearing the young Bears.

The bigneſs of a Bear-whelp.

Bears not ſo unperfect as ſome have reported.

When they firſt enter into their den, they betake themſelves to quiet and reſt, ſleeping without any awaking, for the firſt fourteen dayes, ſo that it is thought an eaſie ſtroke cannot awake them. But how long the females go with young is not certain, ſome affirm three months, others but thirty dayes, which is more probable, for wild beaſts do not couple themſelves being with young (except a Hare and a Linx) and the Bears being (as is already ſaid) very luſtful, to the intent that they may no longer want the company of their males, do violently caſt their Whelps, and ſo preſently after delivery, do after the manner of Conies betake themſelves to their luſt, and nouriſhing their young ones both together: and this is certain, that they never come out of their caves, till their young ones be thirty dayes old at the leaſt; and *Pliny* preciſely affirmeth, that they litter the thirtyeth day after their conception; and for this cauſe, a Bear bringeth forth the leaſt whelp of all other great beaſts, for their whelps at their firſt littering are no bigger then rats, nor longer then ones finger. And whereas it hath been believed and received, that the whelps of Bears at their firſt littering are without all form and faſhion, and nothing but a little congealed blood like a lump of fleſh, which afterwards the old one frameth with her tongue to her own likeneſs, as *Pliny*, *Solinus*, *Ælianus*, *Orus*, *Oppianus*, and *Ovid* have reported, yet is the truth moſt evidently otherwiſe, as by the eye-witneſs of *Ioachimus Rheticus*, and other, is diſproved: only it is littered blind without eyes, naked without hair, and the hinder legs not perfect, the fore-feet folded up like a fiſt, and other members deformed by reaſon of the immoderate humor or moyſtneſs in them, which alſo is one cauſe, why the Womb of the Bear cannot retain the ſeed to the perfection of her young ones.

Number of young ones.

Remedy in Nature.

They bring forth ſometimes two, and never above five, which the old Bear daily keepeth cloſe to her breſt, ſo warming them with the heat of her body and the breath of her mouth, till they be thirty days old; at what time they come abroad, being in the beginning of *May*, which is the third Month from the Spring. The old ones being almoſt dazled with long darkneſs, coming into light again ſeem to ſtagger and reel to and fro, and then for the ſtraightneſs of their guts, by reaſon of their long faſting do eat the hearb *Arum*, commonly called in Engliſh *Wake-Robbin* or *Calves-foot*, being of very ſharp and tart taſte, which enlargeth their guts, and ſo being recovered, they remain all the time their young are with them, more fierce and cruel then at other times. And concerning the ſame *Arum*, called alſo *Dracunculus* and *Oryx*, there is a pleaſant vulgar tale, whereby ſome have conceived that Bears eat this herb before their lying ſecret; and by vertue thereof (without meat, or ſenſe of cold) they paſs away the whole Winter in ſleep.

A fabulous tale, yet vulgarly believed.

There was a certain Cow-herd in the Mountains of *Helvetia*, which coming down a hill with a great Caldron on his back, he ſaw a Bear eating of a root which he had pulled up with his feet; the Cow-herd ſtood ſtill till the Bear was gone, and afterward came to the place where the beaſt had eaten the ſame, and finding more of the ſame root, did likewiſe eat it; he had no ſooner taſted thereof, but he had ſuch a deſire to ſleep, that he could not contain himſelf, but he muſt needs lie down in the way and their fell aſleep, having covered his head with the Caldron, to keep himſelf from the vehemency of the cold, and their ſlept all the Winter time without harm, and never roſe again till the Spring time: Which fable if a man will believe, then doubtleſs this hearb may cauſe the Bears to be ſleepers, not for fourteen days, but for fourſcore days together.

The meat of Bears.

Horat.

Veſpertinus circumgemit urſus ovile.

The ordinary food of Bears is fiſh: for the Water-bear and others will eat fruits, Apples, Grapes, Leaves, and Peaſe, and will break into Bee-hives ſucking out the Hony; Likewiſe Bees, Snayls, and Emmets, and fleſh if it be lean or ready to putrifie; but if a Bear do chance to kill a Swine, or a Bull, or Sheep, he eateth them preſently, whereas other Beaſts eat not hearbs if they eat fleſh: likewiſe they drink water; but not like other beaſts, neither ſucking it or lapping it, but as it were, even biting at it.

Of the quantity and parts of Bears.

Some affirm, that Bears do wax or grow as long as they live, that there have been ſeen ſome of them five cubits long; yea I my ſelf ſaw a Bears skin of that length, and broader then an Oxes skin.

The parts or members.

The head of a Bear is his weakeſt part (as the hand of a Lyon is the ſtrongeſt) for by a ſmall blow on his head he hath often been ſtrucken dead, the bones of the head being very thin and tender: yea more tender then the beak of a Parrot. The mouth of a Bear is like a Hogs mouth, but longer; being armed with teeth on both ſides, like a ſaw, and ſtanding deep in his mouth, they have very thick lips, for which cauſe, he cannot eaſily or haſtily with his teeth break aſunder the hunters nets, except with his fore-feet.

His neck is ſhort, like a Tygers and a Lyons, apt to bend downwards to his meat; his belly is very large, being uniform, and next to it the intrals as in a Wolf: It hath alſo four ſpeans to her Paps. The genital of a Bear after his death waxeth as hard as horn, his knees and elbows are like to an Apes, for which cauſe they are not ſwift or nimble: his feet are like hands, and in them and his loins is his greateſt ſtrength, by reaſon whereof, he ſometimes ſetteth himſelf upright upon his hinder legs: the paſtern of his leg being fleſhy like a Cammels, which maketh them unfit for travel; they have ſharp claws, but a very ſmall tail as all other long haired creatures have.

A Superſtitious uſe of Bears-lard or fat.

They are exceeding full of fat or lard-greaſe, which ſome uſe ſuperſtitiouſly beaten with Oyl, wherewith they anoynt their Grape-ſickles when they go to vintage, perſwading themſelves that if no body know thereof, their tender Vine-branches ſhall never be conſumed by Caterpillers.

Other attribute this to the vertue of Bears blood, and *Theophraſtus* affirmeth, that if Bears greaſe be kept in a veſſel, at ſuch time as the Bears lie ſecret, it will either fill it up, or cauſe it to run over. The fleſh of Bears is unfit for meat, yet ſome uſe to eat it, after it hath been twice ſod; other eat it baked in paſties; but the truth is, it is better for medicine then for food. *Theophraſtus* likewiſe affirmeth, that at the time when Bears lie ſecret, their dead fleſh encreaſeth which is kept in houſes, but Bears fore-feet are held for a very delicate and well taſted food, full of ſweetneſs; and much uſed by the *German* Princes.

A ſecret.

Meat of Bears fleſh.

Another ſecret.

The skins of Bears are uſed in the far Northern regions for garments in the Winter time, which they make ſo artificially, covering themſelves with them from the crown of the head to the feet; that (as *Munſter* affirmed) ſome men deceived with that appearance, deemed the people of *Lapponia* to be hairy all over. The ſouldiers of the *Moors* wear garments made of Lyons, Pardals, and Bears skins, and ſleep upon them; and ſo it is reported of *Herodotus Megarenſis* the Muſitian, who in the day time wore a Lyons skin, and in the night lay in a Bears skin.

The skins.

The conſtitution of the body of a Bear is beyond meaſure phlegmatique, becauſe he faſteth in the Winter time ſo long without meat: His voyce is fierce and fearful in his rage, but in the night time mournful, being given much to ravening. If a Bear do eat of *Mandragoras*, he preſently dyeth, except he meet with Emmets, by licking of whom he recovereth: ſo likewiſe if he be ſick of a Surfeit.

A Bear is much ſubject to blindneſs of the eyes, and for that cauſe they deſire the Hives of Bees, not only for the Hony, but by the ſtinging of the Bees, their eyes are cured. It hath not been ſeen that a female Bear was taken great with young, which cometh to paſs, by reaſon that they go to their Dens ſo ſoon as they are conceived, and come not out thence till they have littered: And becauſe of the fierceneſs of this beaſt, they are ſeldom taken alive, except they be very young: ſo that ſome are killed in the Mountains by poyſon, the Countrey being ſo ſteep and rocky that Hunters cannot follow them; ſome taken in ditches of the earth, and other gins. *Oppianus* relateth, that near *Tygris* and *Armenia*, the Inhabitants uſe this ſtratagem to take Bears. The people go often to the Woods to find the Den of the Bear, following a Leam-hound, whoſe nature is ſo ſoon as he windeth the Beaſt, to bark, whereby his leader diſcovereth the prey, and ſo draweth off the Hound with the leam; then come the people in great multitude, and compaſſing him about with long nets, placing certain men men at each end: then tye they a long rope to one ſide of the net as high from the ground as the ſmall of a mans belly: whereunto are faſtned divers plumes and feathers of Vultures, Swans, and other reſplendent coloured birds, which with the wind make a noiſe or hiſſing, turning over and gliſtering; on the other ſide of the net they build four little hovels of green boughs, wherein they lay four men covered all over with green leaves, then all being prepared, they ſound their Trumpets, and wind their Horns; at the noiſe whereof the Bear ariſeth, and in his fearful rage runneth to and fro as if he ſaw fire: the young men armed make unto him, the Bear looking round about, taketh the plaineſt way toward the rope hung full of feathers, which being ſtirred and haled by them that hold it, maketh the Bear much affraid with the ratling and hiſſing thereof, and ſo flying from that ſide half mad, runneth into the nets, where the Keepers entrap him ſo cunningly, that he ſeldom eſcapeth.

Taking of Bears.

When a Bear is ſet upon by an armed man, he ſtandeth upright and taketh the man betwixt his fore-feet, but he being covered all over with iron plates can receive no harm, and then may eaſily with a ſharp knife or dagger pierce through the heart of the beaſt.

If a ſhe Bear having young ones be hunted, ſhe driveth her whelps before her untill they be wearied, and then if ſhe be not prevented, ſhe climbeth upon a tree, carrying one of her young in her mouth, and the other on her back. A Bear will not willingly fight with a man, but being hurt by a man, he gnaſheth his teeth, and licketh his fore-feet: and it is reported by an Ambaſſador of *Poland*, that when the *Sarmatians* find a Bear, they incloſe the whole Wood by a multitude of people, ſtanding not above a cubit one from another, then cut they down the outmoſt trees, ſo that they raiſe a wall of wood to hem in the Bears; this being effected, they raiſe the Bear, having certain forks in their hands made for that purpoſe, and when the Bear approacheth, they (with thoſe forks) fall upon him, one keeping his head, another one leg, another his body, and ſo with force muzzle him and tie his legs, leading him away. The *Rhetians* uſe this policy to take Wolves and Bears: they raiſe up great poſts, and croſs them with a long beam laded with heavy weights, unto the which beam they faſten a cord with meat therein, whereunto the beaſt coming, and biting at the meat, pulleth down the beam upon her own pate.

The Inhabitants of *Helvetia* hunt them with maſtiff Dogs, becauſe they ſhould not kill their Cattel left at large in the field in the day time; They likewiſe ſhoot them with guns, giving a good ſum of money to them that can bring them a ſlain Bear. The *Sarmatians* uſe to take Bears by this ſleight; under thoſe trees wherein Bees breed, they plant a great many of ſharp pointed ſtakes, putting one hard into the hole wherein the Bees go in and out, whereunto the Bear climbing, and coming to pull it forth, to the end that he may come to the Hony, and being angry that the ſtake ſticketh ſo faſt in the hole, with violence plucketh it forth with both her fore-feet, whereby ſhe looſeth her hold and falleth down upon the picked ſtakes, whereupon ſhe dieth, if they that watch for her come not to take her off. There was reported by *Demetrius* Ambaſſador at *Rome*, from the King of *Muſco*, that a neighbour of his going to ſeek Hony, fell into a hollow tree up to the breſt in Hony, where he lay two days, being not heard by any man to complain; at length

A Hiſtory.

came a great Bear to this Hony; and putting his head into the tree, the poor man took hold thereof, whereat the Bear ſuddenly affrighted, drew the man out of that deadly danger, and ſo ran away for fear of a worſe creature.

Herus.

But if there be no tree wherein Bees do breed neer to the place where the Bear abideth, then they uſe to anoynt ſome hollow place of a tree with Hony, whereinto Bees will enter and make Hony-combes, and when the Bear findeth them ſhe is killed as aforeſaid. In *Norway* they uſe to ſaw the tree almoſt aſunder, ſo that when the beaſt climbeth it, ſhe falleth down upon piked ſtakes laid underneath to kill her: And ſome make a hollow place in a tree, wherein they put a great pot of water, having anoynted it with Hony, at the bottom whereof are faſtened certain hooks bending downward, leaving an eaſie paſſage for the Bear to thruſt in her head to get the Hony, but impoſſible to pull it forth again alone, becauſe the hooks take hold on her skin: this pot they binde faſt to a tree, whereby the Bear is taken alive, and blindefolded, and though her ſtrength break the cord or chain wherewith the pot is faſtened, yet can ſhe not eſcape or hurt any body in the taking, by reaſon her head is faſtened in the pot.

Pollux.

To conclude, other make ditches or pits under Apple-trees, laying upon their mouth rotten ſticks, which they cover with earth, and ſtrow upon it herbs, and when the Bear cometh to the Apple-tree, ſhe falleth into the pit and is taken.

Ælianus.

The herb Wolfeban or Libardine is poiſon to Foxes, Wolves, Dogs, and Bears, and to all beaſts that are littered blinde, as the *Alpine Rhætians* affirm. There is one kinde of this called *Cyclamine*, which the *Valdenſians* call *Tora*, and with the juyce thereof they poyſon their darts, whereof I have credibly received this ſtory; That a certain *Valdenſian*, ſeeing a wilde Bear, having a dart poyſoned herewith, did caſt it at the Bear being far from him, and lightly wounded her; it being no ſooner done, but the Bear ran to and fro in a wonderful perplexity through the woods, unto a very ſharp cliffe of a rock, where the man ſaw her draw her laſt breath, as ſoon as the poyſon had entered to her heart, as he afterward found by opening of her body. The like is reported of Henbane, another herb: But there is a certain black fiſh in *Armenia*, full of poyſon, with the powder whereof they poyſon Figs, and caſt them in thoſe places where wilde beaſts are moſt plentiful, which they eat, and ſo are killed.

Albertus.

Concerning the induſtry or natural diſpoſition of a Bear, it is certain that they are very hardly tamed, and not to be truſted though they ſeem never ſo tame; for which cauſe there is a ſtory of *Diana* in *Lyſias*, that there was a certain Bear made ſo tame, that it went up and down among men and would feed with them, taking meat at their hands, giving no occaſion to fear or miſtruſt her cruelty: on a day, a young maid playing with the Bear laſciviouſly did ſo provoke it, that he tore her in pieces; the Virgins brethren ſeeing the murther, with their darts ſlew the Bear, whereupon followed a great peſtilence through all that region: and when they conſulted with the Oracle, the paynim God gave anſwer, that the plague could not ceaſe, untill they dedicated ſome Virgins unto *Diana* for the Bears ſake that was ſlain; which ſome interpreting that they ſhould ſacrifice them: *Embarus* upon condition the Prieſthood might remain in his family, ſlew his only daughter to end the peſtilence, and for this cauſe the Virgins were after dedicated to *Diana* before their marriage, when they were betwixt ten and fifteen year old, which was performed in the month of *January*, otherwiſe they could not be marryed: Yet Bears are tamed for labours, and eſpecially for ſports among the *Roxolani* and *Lybians*, being taught to draw water with wheels out of the deepeſt wels; likewiſe ſtones upon ſleds to the building of walls.

A Hiſtory.

A Prince of *Lituania* nouriſhed a Bear very tenderly, feeding her from his table with his own hand, for he had uſed her to be familiar in his Court, and to come into his own chamber when he liſted, ſo that ſhe would go abroad into the fields and woods, returning home again of her own accord, and would with her hand or foot rub the Kings chamber door to have it opened, when ſhe was hungry; it being locked: it happened that certain young Noble-men conſpired the death of this Prince, and came to his chamber door, rubbing it after the cuſtom of the Bear, the King not doubting any evill, and ſuppoſing it had been his Bear, opened the door, and they preſently ſlew him.

Cælius.

There is a fable of a certain wilde Bear, of huge ſtature, which terrified all them that looked upon her, the which *Pythagoras* ſent for, and kept to himſelf, very familiarly uſing to ſtroke and milk her; at the length when he was weary of her, he whiſpered in her ear, and bound her with an oath, that being departed ſhe ſhould never more harm any living thing, which ſaith the fable, ſhe obſerved to her dying day. Theſe Bears care not for any thing that is dead, and therefore if a man can hold his breath as if he were dead, they will not harm him; which gave occaſion to *Eſope*, to fable of two companions and ſworn friends, who travelling together met with a Bear, whereat they being amazed, one of them ran away and gat up into a tree; the other fell down and counterfeited himſelf dead, unto whom the Bear came and ſmelt at his noſtrils and ears for breath, but perceiving none, departed without hurting him: ſoon after the other friend came down from the tree, and merrily asked his companion what the Bear ſaid in his ear, Marry (quoth he) ſhe warn'd me that I ſhould never truſt ſuch a fugitive friend as thou art, which didſt forſake me in my greateſt neceſſity: thus far *Eſop*.

Varrinus.

~~They will~~ bury one another being dead, as *Tzetzes* affirmeth, and it is received in many Nations, that children have been nurſed by Bears: *Paris* thrown out of the City, was nouriſhed by a Bear. There is in *France* a Noble houſe of the *Urſons*, whoſe firſt founder is reported to have been certain years together nouriſhed by a Bear, and for that cauſe was called *Vrſon*: and ſome affirm, that *Arceſius* was ſo, being deceived by the name of his mother who was called *Arctos*, a Bear: as among the *Latines* was *Vrſula*. And it is reported in the year of our Lord 1274. that the Concubine of Pope *Nicholas* (being with childe as was ſuppoſed) brought forth a young Bear, which ſhe did not by any unlawful copulation with ſuch a beaſt, but only with the moſt holy Pope; and conceived ſuch a creature, by ſtrength of imagination, lying in his Palace, where ſhe ſaw the pictures of many Bears; ſo that the holy Father being firſt put in good hope of a ſon, and afterward ſeeing this monſter (like himſelf, Rev. 13.) for anger and ſhame defaced all his pictures of thoſe beaſts. There is a mountain called the Mountain of Bears in *Cyzicus*, betwixt *Cherſoneſus* and *Propontus*; ſo called, becauſe as ſome have affirmed, *Helice* and *Cynoſura* were turned into Bears in that place, but the reaſon is more probable, becauſe it was full of Bears, or elſe becauſe it was ſo high that it ſeemed to touch the *Bear*-ſtar. *Sebab. Frank.*

There is a Conſtellation called the Bear in the figure of ſeven Stars like a Cart, whereof four ſtand in the place of the wheels, and three in the room of Horſes. The *Septentrions* call them *Triones*, that is yoked Oxen. But there are two Bears, a greater and a leſſer. The greater is called *Caliſto*, after the name of *Lycaons* daughter, who reigned in *Arcadia*, whereof many give divers reaſons. For they ſay *Calliſto* was a companion of *Diana*, and uſed to hunt with her being very like unto her, and one day *Iupiter* came to her in the likeneſs of *Diana*, and deflowred her, and when ſhe was with childe, *Diana* asked how that happened, to whom *Calliſto* anſwered, that it happened by her fact: wherewith the Goddeſs being angry, turned her into a Bear, in which ſhape ſhe brought forth *Arcas*, and they both wandering in the Woods, were taken and brought for a preſent unto *Lycaon* her father: And upon a day, the Bear being ignorant of the law, entered into the Temple of *Jupiter Lycæus*, and her ſon followed her, for which the *Arcadians* would have ſlain them both, but *Iupiter* in pity of them took them both into Heaven, and placed them among the Stars. *Higinus.*

Other ſay that *Calliſto* was turned into a Bear by *Iuno*, whom afterward *Diana* ſlew, and coming to knowledge that it was *Calliſto*, ſhe placed her for a ſign in Heaven, which is called *Urſa Major*, the great Bear; which before that time was called *Hamaxa*; but the reaſon of theſe fables is rendred by *Palæphatus*, becauſe that *Calliſto* going into a Bears den, was by the Bear devoured, and ſo her fooliſh companions ſeeing none come forth but the Bear, fondly imagined that the Virgin was turned into a Bear.

There is another Conſtellation next to the great Bear, called *Arctophylax*, *Bootes*, or the little Bear, in whoſe girdle is a bright Star called *Arcturus*, and from this conſtellation of Bears, cometh the denomination of the *Arctique* and *Antarctique pole*. Other affirm, that the two Bears were *Helice* and *Cynoſura*, the two Nurſes of *Iupiter*, becauſe ſometime they are ſo named; the cauſe whereof is apparent in the *Greek* tongue, for *Helice* is a Star, having as it were a tail rowled up, and *Cynoſura*, a tail at length like a Dog: They are alſo nouriſhed for ſport; for as their bodies do in one ſort reſemble Apes, ſo do alſo their diſpoſitions, being apt to ſundry geſtures and paſtimes, lying upon their backs, and turning their hands and feet, rock themſelves upon them as a woman rocketh her childe in a cradle; but principally for fight: for which occaſion they were preſerved of old time by the *Romans*: For when *Meſſala* was Conſul, *Ænobarbus Domitius* preſented in one ring or circle, an hundred Bears, and ſo many hunters with them.

—— *Rabido nec proditus ore*
Fumantem naſum vivi tentaveris urſi,
Sit placidus licet, & lambat digitoſque manuſque:
Si dolor & bilis, ſi juſta coegerit ira,
Vrſus erit, vacua dentes in pelle fatiges.

They will not willingly fight with a man, although men may do it without hurt, for if they annoynt or ſprinkle the mouths of Lyons or Bears with Vitriol or Copperas, it will ſo bind their chaps together, that they ſhall not be able to bite, which cauſed *Martiall* to write thus:

Præceps ſanguinea dum ſe rotat urſus arena,
Implicitam viſco perdidit ille fugam.
Splendida jam tecto ceſſent venabula ferro:
Nec volet excuſſa lancea torta manu.
Deprendat vacuo venator in aere prædam,
Si captare feras aucupis arte placet.

Alexander had a certain *Indian* Dog given unto him, to whom was put a Bore and a Bear to fight withall, but he diſdaining them, would not once regard them, but when a Lyon came, he roſe up and fought with him. Bears, they will fight with Buls, Dogs, and Horſes: when they fight with Buls, they take them by their horns, and ſo with the weight of their body, they weary and preſs the beaſt, untill they may eaſily ſlay him: and this fight is for the moſt part on his back. A *Rhinoceros* ſet on by a Bear in a publick ſpectacle at *Rome*, did eaſily caſt him off from the hold he had on his horn. She doth not adventure on a wilde Bore, except the Bore be aſleep, or not ſeeing her. There is alſo a mortal hatred betwixt a Horſe and a Bear, for they know one another at the firſt ſight; and prepare to combat, which they rather act by policy then by ſtrength: The Bear falling flat on his back, Fight of Bears.

back the Horſe leaping on the Bear, which pulleth at his guts with her fore-feet-nails, and is by the heels of the Horſe wounded to death, if he ſtrike the Bear upon his head. Alſo Bears fear a Sea-calf, and will not fight with them if they can be avoided, for they know they ſhall be overcome.

Great is the fierceneſs of a Bear, as appeareth by holy Scripture, Hoſ. 13. *I will meet them as a Bear robbed of her whelps* (ſaith the Lord) *and will tear in pieces their froward heart*: And *Chuſai* telleth *Abſalon*, 2 Sam. 17. *Thou knoweſt that thy Father and the men that be with him be moſt valiant and fierce, like a ſhe Bear robbed of her Whelps*: for a ſhe Bear is more couragious then a male.

There is a filthy Nation of men called *Taifah*, who are given unto a Sodomitical buggery, to commit uncleanneſs man with man, and eſpecially with young boyes; but if any of them take a wilde Bore, or kill a Bear, he ſhall be exempted from this kind of beaſtly impudicity. *Heliogabalus* was wont to ſhut up his drunken friends together, and ſuddenly in the night would put in among them Bears, Wolves, Lyons, and Leopards, muzled and diſarmed, ſo that when they did awake, they ſhould finde ſuch chamber-fellows, as they could not behold (if darkneſs did not blind them) without ſingular terror; whereby many of them fell into ſwounds, ſickneſs, extaſie and madneſs.

Æneas Sil.

Vitoldus King of *Lituania*, kept certain Bears of purpoſe, to whom he caſt all perſons which ſpoke againſt his tyranny, putting them firſt of all into Bears skins; whoſe cruelty was ſo great, that if he had commanded any of them to hang themſelves, they would rather obey him then endure the terror of his indignation: In like ſort did *Alexander Pheræus* deal with his ſubjects, as is reported by *Textor*. *Valentinianus* the Emperor nouriſhed two Bears devourers of men, one of them called golden *Mica*, the other *Innocentia*; which he lodged neer his own Chamber: at length after many ſlaughters of men, he let *Innocentia* go looſe in the Woods for her good deſerts, in bringing ſo many people to their funerals.

Secrets obſerved of Bears.
Columella.
Arnoldus.
Virtues medicinal.

There are many natural operations in Bears. *Pliny* reporteth, that if a woman be in ſore travail of childe-birth, let a ſtone or arrow which hath killed a Man, a Bear or a Bore, be thrown over the houſe wherein the woman is, and ſhe ſhall be eaſed of her pain. There is a ſmall worm called *Volvox*, which eateth the Vine-branches when they are young, but if the Vine-ſickles be anoynted with Bears blood, that worm will never hurt them. If the blood or greaſe of a Bear be ſet under a bed, it will draw unto it all the fleas, and ſo kill them by cleaving thereunto. But the vertues medicinal are very many: and the firſt of all, the blood cureth all manner of Bunches and Apoſtumes in the fleſh, and bringeth hair upon the eye-lids if the bare place be anoynted therewith.

The fat of a Lyon is moſt hot and dry, and next to a Lyons, a Leopards; next to a Leopards, a Bears; and next to a Bears, a Buls. The later Phyſitians uſe to cure convulſed and diſtracted parts, ſpots, and tumors in the body. It alſo helpeth the pain in the loyns, if the ſick part be anoynted therewith, and all Ulcers in the legs or ſhins, when a Plaiſter is made thereof with Bole-Armorick. Alſo the Ulcers of the feet, mingſed with Allom. It is ſoveraign againſt the falling of the hair, compounded with wilde roſes. The *Spaniards* burn the brain of Bears when they die in any publick ſports, holding them venemous, becauſe being drunk, they drive a man to be as mad as a Bear; and the like is reported of the heart of a Lyon, and the brain of a Cat. The right eye of a Bear dryed to powder, and hung about childrens necks in a little bag, driveth away the terror of dreams, and both the eyes whole, bound to a mans left arm, eaſeth a quartain Ague.

The Liver of a Sow, a Lamb, and a Bear put together, and trod to powder under ones ſhooes eaſeeth and defendeth Cripples from inflamation: the gall being preſerved and warmed in water, delivereth the body from cold, when all other medicine faileth. Some give it mixt with water, to them that are bitten with a mad Dog, holding it for a ſingular remedy, if the party can faſt three days before. It is alſo given againſt the Palſie, the Kings Evill, the Falling-ſickneſs, an old Cough, the Inflamation of the Eyes, the running of the Ears, the difficulty of Urine, and delivery in Childebirth, the Hemorrhoides, the weakneſs of the Back. The ſtones in a Perfume are good againſt the Falling evill, and the Palſie; and that women may go their full time, they make Amulets of Bears nails, and cauſe them to wear them all the time they are with childe.

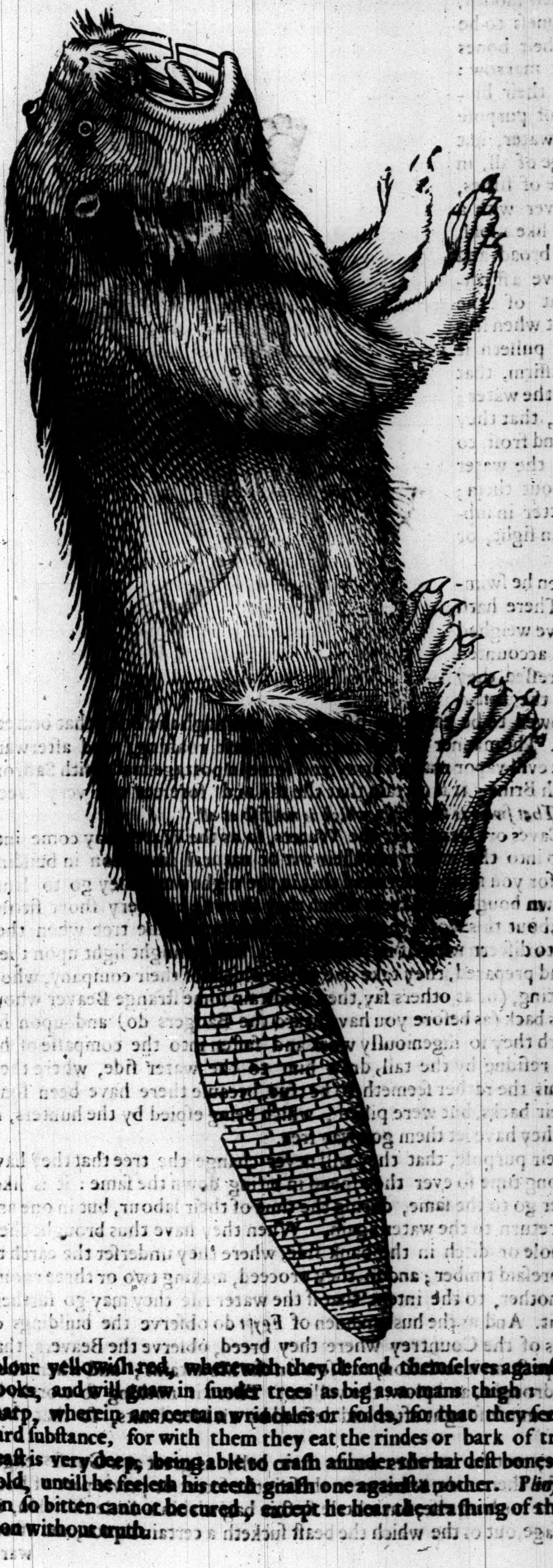
Of the *BEAVER Male* and *Female*.

Of the name.
Silvaticus.

A Beaver is called in *Greek*, *Caſtor*; in *Latine*, *Fiber*; in *Italian*, *Bivarro*, or *Bivero*, and *Ilcaſtoreo*; in *Spaniſh*, *Caſtor*; in *French*, *Bieure*, and ſometime *Caſtor*; in *Illyrian*, *Bobr*; in *Germain*, *Biber*: all which words at the firſt ſight ſeem to be derived from the *Latine*: There is no certain word for it in *Hebrew*: in *Arabia* it is called *Albednester*: it is alſo called in *Latine*, *Canis Ponticus*, but *Canis Fluviatilis*, is another Beaſt, as we ſhall manifeſt in the ſucceeding diſcourſe of an Otter: and the reaſon why in *Latine* it is called *Fiber*, is, becauſe (as *Varro* ſaith) it covereth the ſides, banks, or extremities of the river, as the extremities or laps of the ear and liver are called *Fibræ*, and the skirts of garments *Fimbriæ*: but the reaſon why the *Græcians* call it *Caſtor*, is not as the *Latines* have ſuppoſed, becauſe it biteth off his own ſtones, *quaſi caſtandro ſeipſum*, as ſhall be manifeſted ſoon after, but of *Caſtrando*, becauſe for the ſtones thereof it is hunted and killed; or rather of *Gaſter*, ſignifying a belly, for that the body is long and almoſt all belly; or rather becauſe of the colour & ill ſavour thereof.

The notation of *Fiber* from the *Latine*.
The notation of the *Greek* word *Caſtor*.
What manner of Beaſt a Beaver is.

This Beaver is no other then that which *Ariſtotle* calleth *Latax*, and it differeth from an *Otter* only in



in the tayl. Some compare a Beaver with a Badger, but they attribute to him a longer body and ſmoother hair, but ſhorter and ſofter then a Badgers: their colour is ſomewhat yellow and white, aſperſed with aſh-colour, which ſtand out beyond the ſhorter hairs, double their length: they are neat and ſoft like unto an Otters, and the hairs length of the one and others colour, is not equal. Some have ſeen them brown declining to black, which *Albertus* preferreth, and *Silvius* affirmeth, that his long hairs are like a Dogs, and the ſhort ones like an Otter. They are moſt plentiful in *Pontus*, for which cauſe it is called *Canis Ponticus*; they are alſo bred in the Rivers of *Spain*, and in the River *Mam* in *France*; *Padus*, in *Italy*; in *Savoy*, in the Rivers *Iſara* and *Rhoan*, and in the Iſland called *Camargo*, and in *Helvetia*, neer *Arula*, *Urſa* and *Limagus*: Likewiſe throughout all *Germany*, *Polonia*, *Sclavonia*, *Ruſſia* and *Pruſſia*: and there are Beavers in the woods of *Muſco* and *Lituania*, of excellent perfection and ſtature, above others, having longer white hairs which gliſter above other. Theſe beaſts live both in the water and on the land, for in the day time they keep the water, and in the night they keep the land, and yet without water they cannot live, for they do participate much of the nature of fiſhes, as may be well conſidered by their hinder legs and tail.

Countrey of breed.

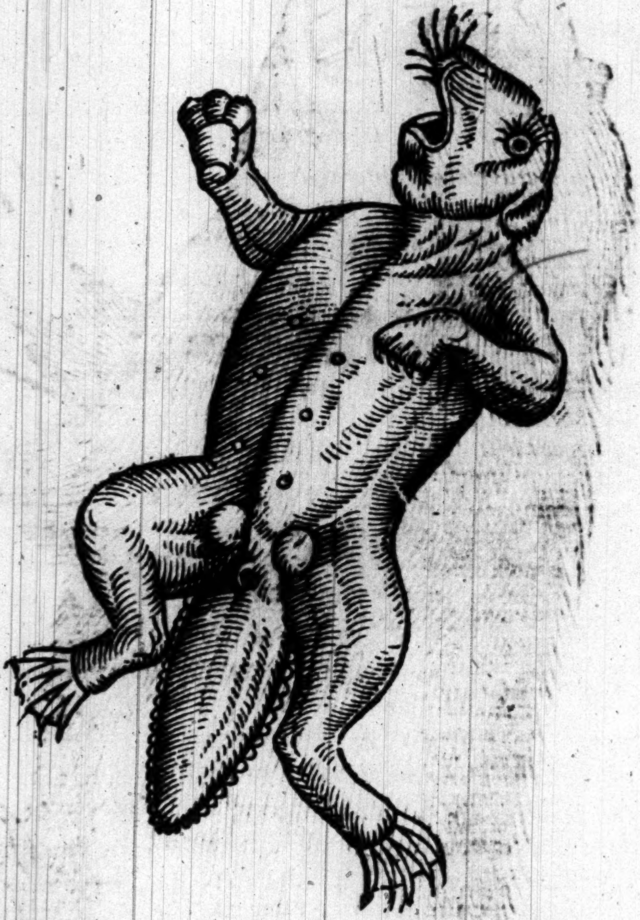
Albertus.

There are land and water Beavers.

Their quantity is not much bigger then a Countrey Dog, their head ſhort, their ears very ſmall and round, their teeth very long, the under teeth ſtanding out beyond their lips three fingers breadth, and the upper about half a finger, being very broad, crooked, ſtrong and ſharp, ſtanding, or growing double, very deep in their mouth, bending compaſs like the edge of an Axe, and their colour yellowiſh red, wherewith they defend themſelves againſt beaſts, take fiſhes as it were upon hooks, and will gnaw in ſunder trees as big as a mans thigh: they have alſo grinding teeth very ſharp, wherein are certain wrinckles or folds, for that they ſeem to be made for grinding ſome hard ſubſtance, for with them they eat the rindes or bark of trees; wherefore the biting of this beaſt is very deep, being able to craſh aſunder the hardeſt bones, and commonly he never loſeth his hold, untill he feeleth his teeth craſh one againſt another. *Pliny* and *Solinus* affirm, that the perſon ſo bitten cannot be cured, except he hear the craſhing of the teeth; which I take to be an opinion without truth.

Their ſeveral parts.
Silvius.
Bellonius.

They have certain hairs about their mouth, which ſeem in their quantity or bigneſs to be rather horn they are ſo hard, but their bones are moſt hard of all and without marrow: Their forefeet are like a Dogs, and their hinder like a Gooſes, made as it were of purpoſe to go on the land, and ſwim in the water, but the tail of this beaſt is moſt ſtrange of all, in that it cometh neareſt to the nature of fiſhes, being without hair, and covered over with a skin like the ſcales of fiſh, it being like a ſoal, and for the moſt part ſix fingers broad and half a foot long, which ſome have affirmed the beaſt never pulleth out of the water; whereas it is manifeſt, that when it is very cold, or the water frozen he pulleth it up to his body, although *Agricola* affirm, that his hinder legs and tail, freeze with the water; and no leſſe untrue is the aſſertion, that they compell the Otter in time of cold and froſt, to wait upon their tail, and to trouble the water ſo that it may not freeze round about them; but yet the Beaver holdeth the Otter in ſubjection, and either overcometh it in fight, or killeth it with his teeth.



This tail he uſeth for a ſtern when he ſwimmeth after fiſh to catch them. There hath been taken of them whoſe tails have weighed four pound weight, and they are accounted a very delicate diſh, for being dreſſed they eat like Barbles: they are uſed by the *Lotharingians* and *Savoyans* for meat allowed to be eaten on fiſh-dayes, although the body that beareth them be fleſh and unclean for food. The manner of their dreſſing is, firſt roaſting, and afterward ſeething in an open pot, that ſo the evill vapor may go away, and ſome in pottage made with Saffron; other with Ginger, and many with Brine; it is certain that the tail and forefeet taſt very ſweet, from whence came the Proverbe, *That ſweet is that fiſh, which is not fiſh at all.*

Bellonius.

Their building of Dens.

Theſe beaſts uſe to build them Caves or Dens neer the Waters, ſo as the Water may come into them, or elſe they may quickly leap into the water, and their wit or natural invention in building of their Caves is moſt wonderful: for you muſt underſtand that in the night time they go to land, and there with their teeth gnaw down boughes and trees which they likewiſe bite very ſhort fitting their purpoſe, and ſo being buſied about this work, they will often look up to the tree when they perceive it almoſt aſunder, thereby to diſcern when it is ready to fall, leſt it might light upon their own pates: the tree being down and prepared, they take one of the oldeſt of their company, whoſe teeth could not be uſed for the cutting, (or as others ſay, they conſtrain ſome ſtrange Beaver whom they meet withal) to fall flat on his back (as before you have heard the Badgers do) and upon his belly lade they all their timber, which they ſo ingeniouſly work and faſten into the compaſſe of his legs that it may not fall, and ſo the reſidue by the tail, draw him to the water ſide, where theſe buildings are to be framed: and this the rather ſeemeth to be true, becauſe there have been ſome ſuch taken, that had no hair on their backs, but were pilled; which being eſpied by the hunters, in pity of their ſlavery, or bondage, they have let them go away free.

Albertus.
Olaus Mag.

Theſe beaſts are ſo conſtant in their purpoſe, that they will never change the tree that they have once choſen to build withal, how long time ſo ever they ſpend in biting down the ſame: it is likewiſe to be obſerved, that they never go to the ſame, during the time of their labour, but in one and the ſame path, and ſo in the ſame return to the water again. When they have thus brought their wood together, then dig they a hole or ditch in the bank ſide, where they underſet the earth to bear it up from falling, with the aforeſaid timber; and ſo they proceed, making two or three rooms like ſeveral chambers, one above another, to the intent that if the water riſe they may go further, and if it fall they may deſcend unto it. And as the husbandmen of *Egypt* do obſerve the buildings of the Crocodile, ſo do the inhabitants of the Countrey where they breed, obſerve the Beavers, that when they build high, they may expect an inundation, and ſow on the Mountains; and when they build low, they look for a calm or drought, and plow the vallies. There is nothing ſo worthy in this beaſt as his ſtones, for they are much ſought after and deſired by all Merchants, ſo that they will give for them any great price.

Albertus.

A ſecret.

There is both in male and female, certain bunches under their belly as great as a Gooſes egge, which ſome have unſkilfully taken for their cods, & between theſe is the ſecret or privie part of both ſexes; which tumours or bunches are nothing elſe, but a little fleſhie bag within a little thin skin, in the middle whereof is a hole or paſſage, out of the which the beaſt ſucketh a certain liquor, and afterward therewith anointeth every part of her body that ſhe can reach with her tongue. Now it is very plain that theſe bunches are not their cods, for theſe reaſons; Becauſe that there is no paſſage either of the ſeed into them, or from them into the yard: Beſides, their ſtones are found within their body; neither ought this to ſeem ſtrange, ſeeing that Hares have the like bunches, and alſo the *Moſchus* or *Musk-cat*: the female hath but one paſſage for all her excrements, and to conceive or bring forth young ones.

The cods or ſtones of the beaſt.

Rondoletius.

It hath been an opinion of ſome, that when a Beaver is hunted and is in danger to be taken, ſhe biteth off her own ſtones, knowing that for them only her life is ſought, which cauſed *Alciatus* to make this Emblem,

Et pedibus ſegnis, tumida & propendulus alvo;
Hac tamen inſidias effugit arte fiber:
Mordicus ipſe ſibi medicata virilia vellit;
Atque abjicit ſeſe gnarus ob illa peti.
Hujus ab exemplo diſces non parcere rebus,
Et vitam ut redimas hoſtibus æra dare.

The Beaver doth not bite off her own ſtones.

Teaching by the example of a Beaver, to give our purſe to theeves, rather then our lives, and by our wealth to redeem our danger, for by this means the Beaver often eſcapeth. There have been many of them found that wanted ſtones, which gave ſome ſtrength to this errour, but this was exploded in ancient time for a fable; and in this and all other honeſt diſcourſes of any part of Philoſophy, the only mark whereat every good ſtudent and profeſſor ought to aime, muſt be verity and not tales; wherein many of the ancient have greatly offended (as is manifeſted by *Marcellus Virgilius*) eſpecially *Plato*: and this poyſon hath alſo crept into and corrupted the whole body of Religion. The *Egytians* in the opinion of the aforeſaid *Caſtration*, when they will ſignifie a man that hurteth himſelf, they picture a Beaver biting off his own ſtones. But this is moſt falſe, as by *Sertius*, *Plinius*, *Dioſcorides*, and *Albertus*, is manifeſted. Firſt, becauſe their ſtones are very ſmall, and ſo placed in their body as are a Boars, and therefore impoſſible for them to touch or come by them. Secondly, they cleave ſo faſt unto their back, that they cannot be taken away but the beaſt muſt of neceſſity loſe his life; and therefore ridiculous is their relation, who likewiſe affirm, that when it is hunted (having formerly bitten off his ſtones) that he ſtandeth upright and ſheweth the hunters that he hath none for them, and therefore his death cannot profit them, by means whereof they are averted and ſeek for another.

Herus.

An emblem.

Theſe Beavers eat fiſh, fruits, and the bitter rindes of trees, which are unto them moſt delicate, eſpecially Aldern, Poplar, and Willow; whereupon it is proverbially ſaid, of one that ſerveth another for gain: *Sic me ſubes quotidie ut fiber ſalicem*, you love me as the Bever doth the Willow, which eateth the bark and deſtroyeth the tree.

Their food.

They are taken for their skins, tails, and cods, and that many wayes; and firſt of all when their Calves are found, there is made a great hole or breach therein, whereinto is put a little Dog, which the beaſt eſpying, flyeth to the end of her den, and there defendeth her ſelf by her teeth, till all her ſtructure or building be raſed, and ſhe laid open to her enemies, who with ſuch inſtruments as they have preſet, beat her to death: ſome affirm that ſhe rouzeth up her body, and by the ſtrong ſavour of her ſtones ſhe driveth away the Dogs, which may be probable, if the ſtones could be ſeen. Theſe Dogs are the ſame which hunt wild fowl and Otters.

Their cauſe of taking.

A ſecret.

It is reported that in *Pruſſia* they take them in bow-nets, baited with the rinde of trees, whereinto they enter for the food, but being entrapped cannot go forth again. They cannot dive long time under water but muſt put up their heads for breath, which being eſpied by them that beſet them, they kill them with gun-ſhot, or pierce them with Otters ſpeares, ſo that one would think ſeeing ſuch a one in the water, that it was ſome hairy kind of fiſh; and his nature is, if he hear any noiſe to put his head above water, whereby he is diſcovered and loſeth his life. His skin is pretious in *Polonia*, either for garment, or for Gloves, but not ſo pretious as an Otters, yet it is uſed for the edging of all other fur garments, making the beſt ſhew and enduring longeſt; they are beſt that are blackeſt, and of the bellies which are like felt wool, they make caps and ſtockings againſt rain and foul weather.

Agricola.

The medicinall vertues of this beaſt are in the skin, the urine, the gall and the cods: and firſt, a garment made of the skins, is good for a Paralytick perſon; and the skins burned with dry Onions and liquid pitch, ſtayeth the bleeding of the noſe, and being put into the ſoles of ſhooes eaſeth the Gowt. The urine preſerved in the bladder, is an antidote againſt poyſon: and the gall is profitable for many things, but eſpecially being turned into a glew it helpeth the falling evill. The genitals of a Beaver are called by the Phyſitians *Caſtoreum*, and therefore we will in this diſcourſe uſe that word for expreſſing the nature, qualities, remedies, and miraculous operation thereof, wherefore they muſt be very warily and skilfully taken forth, for there is in a little skin compaſſing them about a certain ſweet humor (called *Humor Melleus*) and with that they muſt be cut out, the utter skin being cut aſunder to make the more eaſie entrance, and the Apothecaries uſe to take all the fat about them, which they put into the oil of the *Caſtoreum*, and ſell it unto fiſher-men to make bait for fiſhes. The females have ſtones or *Caſtoreum*, as well as the males, but very ſmall ones. Now you muſt take great heed to the choiſe of your Beaver, and then to the ſtones which

The medicinal vertues.

Albertus.

Aetius.

Pliny.

Pliny.

E

muſt grow from one root conjoyned, otherwiſe they are not precious, and the beaſt muſt neither be a young one nor one very old, but in the mean betwixt both, being in vigor and perfection of ſtrength.

Hermolaus. The corrupting of Caſtoreum.

The Beavers of *Spain* yeeld not ſuch virtuous *Caſtoreum* as they of *Pontus*, and therefore if it be poſſible, take a *Pontique* Beaver, next one of *Galtatia*, and laſtly of *Africk*. Some do corrupt them putting into their skin Gum and *Ammoniack* with blood, other take the reins of the beaſt, and ſo make the *Caſtoreum* very big, which in it ſelf is but ſmall. This beaſt hath two bladders, which I remember not are in any other living creature, and you muſt beware that none of theſe be joyned to the *Caſtoreum*. You may know if it be mingled with *Ammoniack* by the taſt, for although the colour be like, yet is the ſavour different. *Platearius* ſheweth, that ſome adulterate *Caſtoreum*, by taking off his skin, or ſome cod newly taken forth of another beaſt, filling it with bloud, ſinews and the powder of *Caſtoreum*, that ſo it may not want his ſtrong ſmell or ſavour: other fill it with earth and bloud: other with bloud, roſen, gum, ſinews and pepper, to make it taſt ſharp: but this is a falſification diſcernible, and of this ſort is the *Caſtoreum* which is ſold in *Venice*, as *Braſovala* affirmeth: and the moſt of them ſold at this day are bigger then the true *Caſtoreum*, for the juſt weight of the right ſtones is not above twelve ounces and a half, one of them being bigger then the other, being ſix fingers breadth long, and four in breadth. Now the ſubſtance contained in the bag is yellowiſh, ſolid like wax, and ſticking like glew, not ſharp and cracking betwixt the teeth (as the counterſeit is). Theſe ſtones are of a ſtrong and ſtinking ſavour, ſuch as is not in any other, but not rotten and ſharp, as *Grammarians* affirm; yer I have ſmelled of it dryed, which was not unpleaſant, and things once ſeaſoned with the ſavour thereof, will ever taſt of it, although they have not touched it, but lie covered with it in the ſame box or pot; and therefore the *Caſtoreum* of *Perſia* is counterſeit, which hath no ſuch ſmell, for if a man ſmell to the right *Caſtoreum*, it will draw bloud out of his noſe.

After it is taken forth from the beaſt, it muſt be hung up in ſome place to be dryed in the ſhadow, and when it is dry, it is ſoft and white: it will continue it ſtrength ſix years, and ſome ſay ſeven; the *Perſians* affirm, that their *Caſtoreum* will hold his virtue ten years, which is as falſe as the matter they ſpeak of is counterfeit. *Archigenes* wrote a whole book of the virtue of this *Caſtoreum*, whereunto they may reſort, that require an exact and full declaration of all his medicinal operations: it ſhall only be our purpoſe, to touch ſome general heads, and not to enter into a particular diſcovery thereof.

The dangers in the uſe of *Caſtorium.* *Servius.*

Being ſo dryed as is declared, it muſt be warily uſed, for it falleth out herein as in other medicinal ſubjects, that ignorance turneth a curing herb or ſubſtance, into a venemous and deſtructive quality; therefore we will firſt of all ſet down the dangers to be avoided, and afterward ſome particular cures that come by the right uſe of it. Therefore it muſt be underſtood that there is poyſon in it, not naturally, but by accident, as may be in any other good and wholeſome matter: and that eſpecially in the ſmell or ſavour thereof, whereunto if a woman with childe do ſmell, it will kill the childe unborn and cauſe abortment; for a womans womb is like a creature, nouriſhed with good ſavours, and deſtroyed with evill: therefore burning of feathers, ſhoo-ſoles, woollen clothes, pitch, *Galbanum*, gum, onions, and garlick is noyſom to them. It may be corrupted not only as is before declared; but alſo, if it be ſhut up cloſe without vent into pure aire, when it is hanged up to be dryed, or if the bag be kept moiſt, ſo that it cannot dry; and it is true (as *Avicen* ſaith) that if it be uſed being ſo corrupted, it killeth within a dayes ſpace, driving one into madneſs, making the ſick perſon continually to hold forth his tongue, and infecting him with a Fever by inflaming the body, looſing the continuity of the parts, through ſharp vapors ariſing from the ſtomach: and for a proof that it will inflame, if you take a little of it mingled with oil, and rub upon any part of the body, or upon your nail, you ſhall feel it.

But there is alſo a remedy for it being corrupted; namely, Aſſes milk mingled with ſome ſharp ſyrup of *Citron*, or if need require, drink a dram of *Philons* Antidote at the moſt, or take butter and ſweet water which will cauſe vomit, and vomit therewith ſo long, as you feel the ſavour of the ſtone, and afterward take ſyrup of Limmons or Citrons: and ſome affirm upon experience, that two penny weight of *Coriander-ſeed*, ſcorched in the fire, is a preſent remedy for this evill. And it is moſt ſtrange, that ſeeing it is in greateſt ſtrength, when the ſavour is hotteſt, which is very diſpleaſing to a mans nature in outward appearance, yet doth it never harm a man taken inwardly, (being pure and rightly compounded) if the perſon be without a Fever, for in that caſe only it doth hurt inwardly, otherwiſe apply it to a moiſt body lacking refrigeration, or to a cold body wanting excalfaction, or to a cold and moiſt body, you ſhall perceive an evident commodity thereby, if there be no Fever: and yet it hath profited many where the Fever hath not been over hot, as in Extaſies and Lethargies, miniſtred with white Pepper, and Melicrate, and with Roſe cakes laid to the neck or head. The ſame virtues it hath being outwardly applyed and mingled with oil, if the bodies be in any heat, and purely without oil, if the body be cold, for in heating it holdeth the third degree, and in drying the ſecond. The manner how it is to be adminiſtred is in drink, for the moſt part, the ſweet liquor being taken from it, and the little skins appearing therein cleanſed away, and ſo it hath among many other theſe operations following. Drunk with Vinegar, it is good againſt all venom of Serpents, and againſt the *Chameleon*, but with this difference, againſt the Scorpion with wine, againſt Spiders with ſweet water, againſt the Lizzards with Myrtite, againſt *Dipſas* and *Ceraſtes*, with *Oponax*, or wine made of *Rew*, and againſt other-Serpents with wine ſimply.

Take of every one two drams, for a cold take it a ſcruple and a half in four cups of wine, uſed with *Ladanum*, it cureth the Fiſtulaes and Ulcers, provoking ſneezing by ſmelling to it; procureth ſleep, they being anointed with it; Maiden-weed and Conſerve of Roſes, and being drunk in water, helpeth Phrenſie, and with the Roſes and Maiden-weed aforeſaid, eaſeth head-ach; being laid to the head like a plaiſter, it cureth all cold and windy affections therein; or if one draw in the ſmoak of it perfumed, though the pain be from the mothers womb, and given in three cups of ſweet Vinegar faſting, it helpeth the Falling ſickneſs, but if the perſon have often fits, the ſame given in a Glyſter, giveth great eaſe: Then muſt the quantity be two drams of *Caſtoreum*, one ſextary of honey and oil, and the like quantity of water, but in the fit it helpeth with Vinegar by ſmelling to it. It helpeth the Palſie, taken in Rew or wine, ſod in Rew, ſo alſo all heart trembling, ach in the ſtomach, and quaking of the ſinews. It being infuſed into them that lie in Lethargies with Vinegar and Conſerve of Roſes doth preſently awake them, for it ſtrengthneth the brain, and moveth ſternutation. It helpeth oblivion coming by reaſon of ſickneſs, the party being firſt purged with *Hiera Ruffi*, *Caſtoreum*, with oil bound to the hinder part of the head, and afterward a dram drunk with *Melicrate*, alſo taken with oil, cureth all Convulſion proceeding of cold humors, if the Convulſion be full and perfect, and not temporal or in ſome particular member, which may come to paſſe in any ſickneſs.

Caſtoreoq; gravi mulier ſopita recumbit.

The ſame mixed with hony helpeth the clearneſs of the eyes, and their inflamations; likewiſe uſed with the juice of Popy, and infuſed to the ears, or mixed with hony, helpeth all pains in them. With the ſeed of Hemlocks beaten in Vinegar, it ſharneth the ſenſe of hearing, if the cauſe be cold, and it cureth toothach infuſed into that ear with oil on which ſide the pain reſteth; for *Hippocrates* ſent unto the wife of *Aſpaſius* (complaining of the pain in her cheek and teeth) a little *Caſtoreum* with Pepper, adviſing her to hold it in her mouth betwixt her teeth. A perfume of it drawn up into the head and ſtomach, eaſeth the pains of the lights and intrails, and given to them that ſigh much with ſweet Vinegar faſting, it recovereth them. It eaſeth the Cough, and diſtillations of rhume from the head to the ſtomach, taken with the juyce of black Popy. It is preſervative againſt inflamations and pains in the guts or belly (although the belly be ſwoln with cold windy humors) being drunk with Vinegar, or *Oyxycrate*; it eaſeth the Colick being given with Annis beaten ſmall, and two ſpoonfuls of ſweet water; and it is found by experiment, that when a horſe cannot make water, let him be covered over with his cloth, and then put underneath him a fire of coals, wherein make a perfume with that *Caſtoreum* till the Horſes belly and cods ſmell thereof, then taking away the coals, walk the horſe up and down covered, and he will preſently ſtale.

Vegetius.

To ſoften the belly they uſe *Caſtoreum* with ſweet water two drams, and if it be not forcible enough, they take the root of a ſet Cucumber one dram, and the fome of Salt Peter two drams. It is alſo uſed with the juice of Withy and decoction of Vinegar applyed to the reins and genital parts like a plaiſter againſt the *Gonorrhean* paſſion. It will ſtir up a womans monethly courſes, and cauſe an eaſie travail, two drams being drunk in water with Penny-royal. And if a Woman with childe go over a *Beaver*, ſhe will ſuffer abortment; and *Hippocrates* affirmeth, that a perfume made with *Caſtoreum*, Aſſes dung, and Swines greaſe, openeth a cloſed womb.

A ſecret.

There is an Antidote called *Diacoſtu*, made of this *Caſtoreum*, good againſt the Megrim, Falling ſickneſs, Apoplexies, Palſies, and weakneſs of lims, as may be ſeen in *Myrepſus*: againſt the impotency of the tongue, trembling of the members, and other ſuch infirmities. Theſe vertues of a Beaver thus deſcribed, I will conclude this diſcourſe with a Hiſtory of a ſtrange beaſt like unto this, related by *Dunranus Campus-bellus* (a noble Knight) who affirmed, that there are in *Arcadia*, ſeaven great lakes ſome 30 miles compaſs, and ſome leſſe, whereof one is called *Garloil*, out of which in *Anno* 1510 about the midſt of Summer, in a morning came a beaſt about the bigneſs of a water Dog, having feet like a Gooſe, who with his tail eaſily threw down ſmall trees, and preſently with a ſwift pace he made after ſome men that he ſaw, and with three ſtrokes he likewiſe overthrew three of them, the reſidue climbing up into trees eſcaped, and the beaſt without any long tarrying, returned back again into the water, which beaſt hath at other times been ſeen, and it is obſerved, that this appearance of the Monſter, did give warning of ſome ſtrange evils upon the Land: which ſtory is recorded by *Hector Boethius*.

A miraculous Hiſtory of a Monſter.

Of the BISON.

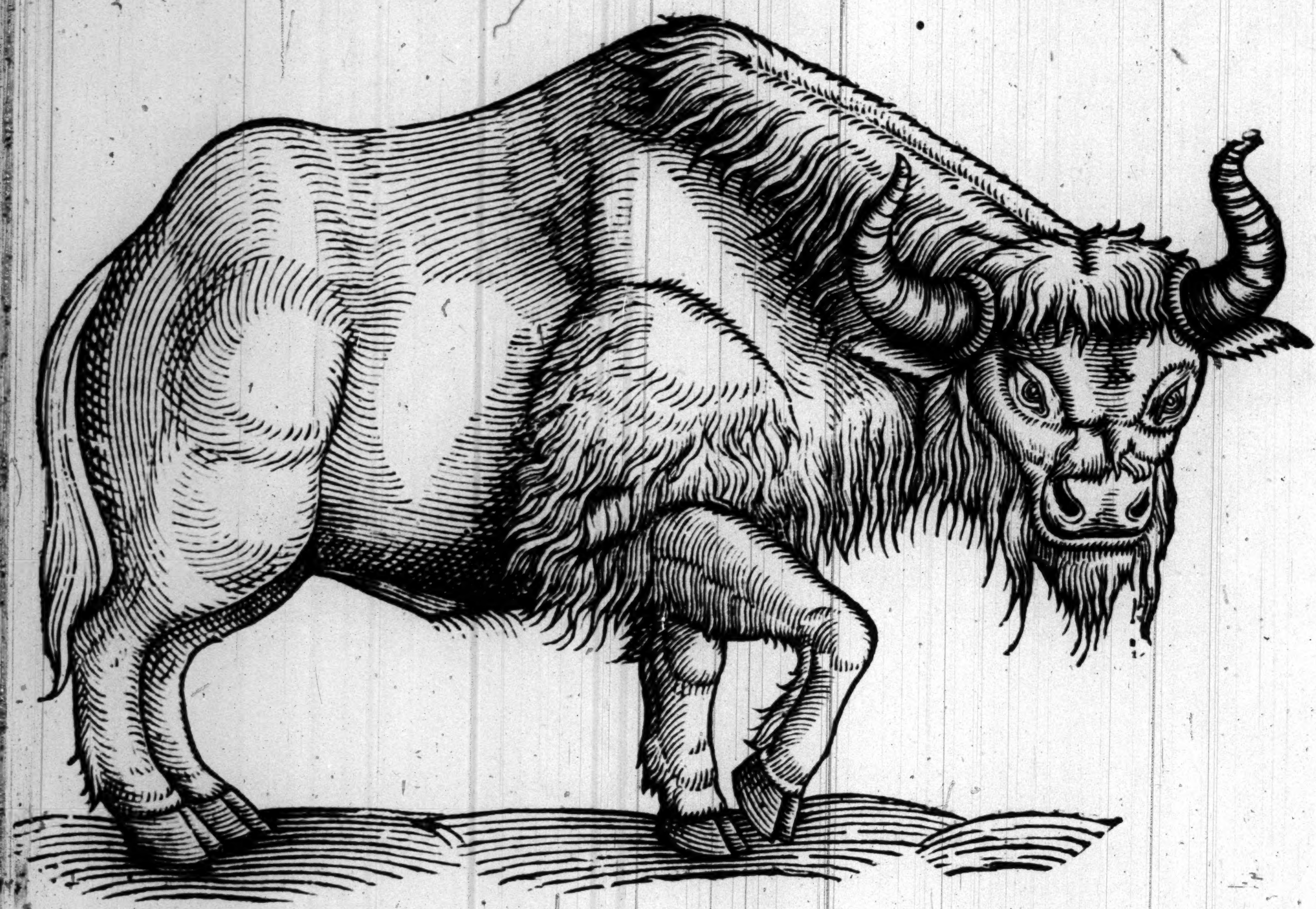
A Biſon called of ſome *Latins*, though corruptly, *Urſon*, and *Veſon*; of the *Grecians*, *Biſoon*; of the *Lituanians*, *Suber*; of the *Polonians*, *Zuber*, from whence ſome *Latins* derived *Zubro*, for a Biſon. Of the *Germans*, *Viſent*, and *Væſent*, and *Wiſent*: a beaſt very ſtrange as may appear by his figure prefixed, which by many Authors is taken for *Urus*, ſome for a *Bugil*, or wilde Ox; other for *Rangifer*, and many for the beaſt *Tarandus* a *Buffe*. By reaſon whereof there are not many things, which can by infallible collection be learned of this beaſt among the writers; yet it is truly and generally held for a kind of wilde Ox, bred in the Northern parts of the World for the moſt part, and never tamed, as in *Scythia*, *Moſcovia*, *Hercynia*, *Thracia*, and *Pruſſia*. But thoſe tall wilde Oxen which are ſaid to be in *Lapponia*, and the Dukedom of *Angermannia*, are more truly ſaid to be *Uri*, as in their ſtory ſhall be afterward declared. Their name is taken from *Thracia*, which

Of the name.

Place of their breed.

Philoſtephan.

The reaſon of their name.



Varinus.
Stephanus.
A ſecret in the Lake *Dicæa.*

was once called *Biſtonia*, and the people thereof *Biſtones*, from *Biſto* the Son of *Cicas* and *Terpſichore*; and thereof came *Biſtoniæ Grues*, cranes of *Thracia*, and *Biſtoniæ Lacus*, for the lake or ſea of *Dicæa*, near *Abdera*, where never living thing, or other of leſſe weight was caſt in but it preſently ſunk and was drowned.

Several kindes.

This Biſon is called *Taurus Pæonicus*, the *Pæonian-Bull*, whereof I finde two kinds, one of greater, and another of leſſer ſize, called the *Scotian*, or *Calydonian Biſon*, whereof you ſhall ſee the picture and qualities at the foot of this Hiſtory.

The great Biſon.
The ſeveral parts.
The ſtrength of this Beaſt.
The quantity of Biſons.
The ſtrength of their tongue.

The greater is as big as any Bull or Oxe, being maned about the neck and back like a Lion, and hath hair hanging down under his chin or neather lip like a large beard: and a riſing or little ridge down along his face, beginning at the height of his head, and continuing to his noſe very hairy; his horns great and very ſharp, yet turning up towards his back, and at the points hooked like the wilde Goats of the Alpes, but much greater: they are black of colour, and with them through the admirable ſtrength of his neck can he toſſe into the air, a horſe and horſeman both together. They are as big as the *Dextarii* which are the greateſt *Stallions* of *Italy*. Their face looketh downward, and they have a ſtrange ſtrength in their tongue, for by licking they grate like a file any indifferent hard ſubſtance, but eſpecially they can therewith draw unto them any man or beaſt of inferior condition, whom by licking they wound to death.

Their hair is red, yellow, or black, their eyes very great and terrible; they ſmell like a *Moſchus* or *Musk-cat*, and their mane reacheth over their ſhoulders, ſhaking it irefully when he brayeth; their face, or forehead very broad, eſpecially betwixt their horns, for *Sigiſmond* King of *Polonia*, having kild one of them in hunting, ſtood betwixt his horns, with two other men not much leſſer in quantity then himſelf, who was a goodly well proportioned and perſonal Prince.

The fleſh of this Beaſt.
Bonarus.
Baro.
A ſecret in the inward heat of this beaſt.
Their hunting.

There are two bunches on his back, the former near his ſhoulders, which is the higher, and the other near the rump, which is ſomewhat lower. I have ſeen the horns of a Biſon, which was in the hands of a Goldſmith to tip with ſilver and gilt, that it might be fit to drink in: it did bend like the talon of an Eagle or Gryphin, or ſome ravenous bird. The fleſh in Summer time is moſt fat, but it taſteth ſo much of wilde Garlick, or Ramſens, that it is not pleaſant to eat, being full of ſmall veins and ſtrings, and is accounted a noble and ſtrong kind of fleſh: the bloud is the moſt pureſt in the world, excelling in colour any purple, and yet for all that it is ſo hot, that being let forth when the Beaſt dyeth, within two houres ſpace it putrefieth, and the fleſh it ſelf in the coldeſt Winter will not keep ſweet many hours, by reaſon of the immoderate heat thereof, if the Hunter do not after the fall of the beaſt, ſeparate from it the intrails: and which is moſt ſtrange of all, being pierced alive with any hunting ſpear, dart, or ſword, the weapon by the heat of the body is made ſo weak and ſoluble, that it cometh forth as flexible as lead: and to conclude, it is a moſt noble and fierce ſpirited beaſt, never afraid, or yeelding till breath faileth, neither can he be taken with any nets or gins, untill they be thoroughly wearyed: wherefore they which hunt him, muſt be very ſtrong, nimble and skilful men, or elſe that ſport will be their own undoing and overthrow.

Sigiſm. Bar.

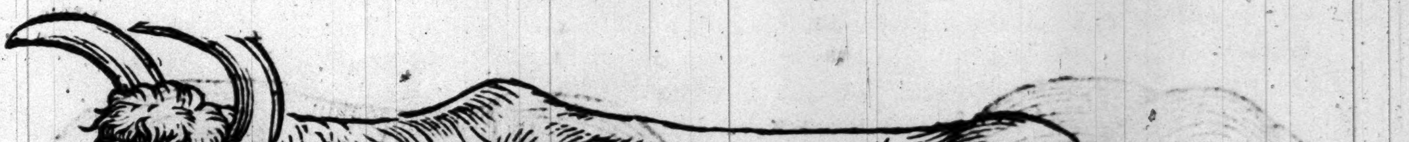
Therefore when they go to hunt this Biſon, they chooſe a place repleniſhed with large trees, neither ſo great that they cannot eaſily wind about them, nor ſo little that they ſhall not be able to cover their bodies from the horn or tongue of the beaſt: behind which the hunters place themſelves out of ſight: and then the Dogs rouze up the beaſt, driving him to that place where the hunters ſtand; whom the beaſt firſt eſpyeth, to him he maketh force, who muſt warily keep the tree for his ſhield, and with his ſpear wound him where he can, who will not fall without many mortal ſtrokes, but waxe more and more eager, not only with horn but with tongue, for if he can but apprehend any part of the hunters garment with his tongue, he loſeth no hold but draweth him unto him, and with his horn and feet killeth him: but if the fight be long, and ſo the hunter wearied and out of breath then doth he caſt a red cap unto the beaſt, who maketh at it with head and feet, never leaving till it be all in pieces; and if another come to help him as hunters muſt, if they will return alive, then ſhall he eaſily draw the beaſt to combate, and forſake the firſt man, if he cry *Lu-lu-lu.*

In Phocicis. How Biſons are taken alive.

Pauſanias ſheweth how theſe Biſons are taken alive, in this ſort. The hunters (ſaith he) chuſe out ſome ſteep and ſlippery down hill, whereupon they lay skins of beaſts newly taken off, and if they want ſuch, then anoint they old skins with oil, and ſo leave them ſpread upon thoſe ſteeping or bending paſſages; then raiſe they the beaſts, and with Dogs and other means on horſeback drive them along to the places where they laid their hides, and as ſoon as they come upon the skins they ſlip and fall down, rowling headlong till they come into the valleys, from whence they conſtrain them back again ſome other way, three or four times a day, making them fall down the hils as aforeſaid, and ſo wearying them with continual hunting, and faſting. At the laſt they come unto them, when they are no more able to riſe for faintneſs, and give them Pine-apples taken out of the ſhels, (for with that meat are they delighted) and ſo while they eagerly feed and lie weary on the ground, they intoil them in bands and manacles, and lead them away alive. The medicines coming from this beaſt may be conjectured to be more forcible, then of common and ordinary Oxen, but becauſe they were not known to the *Grecians* and *Arabians*, and we finde nothing recorded thereof; we will conclude the ſtory of this great Biſon, with good opinion of the virtues, though we are not able to learn or diſcover them to others.

The medicines not known.

Of the white SCOTIAN *BISON.*

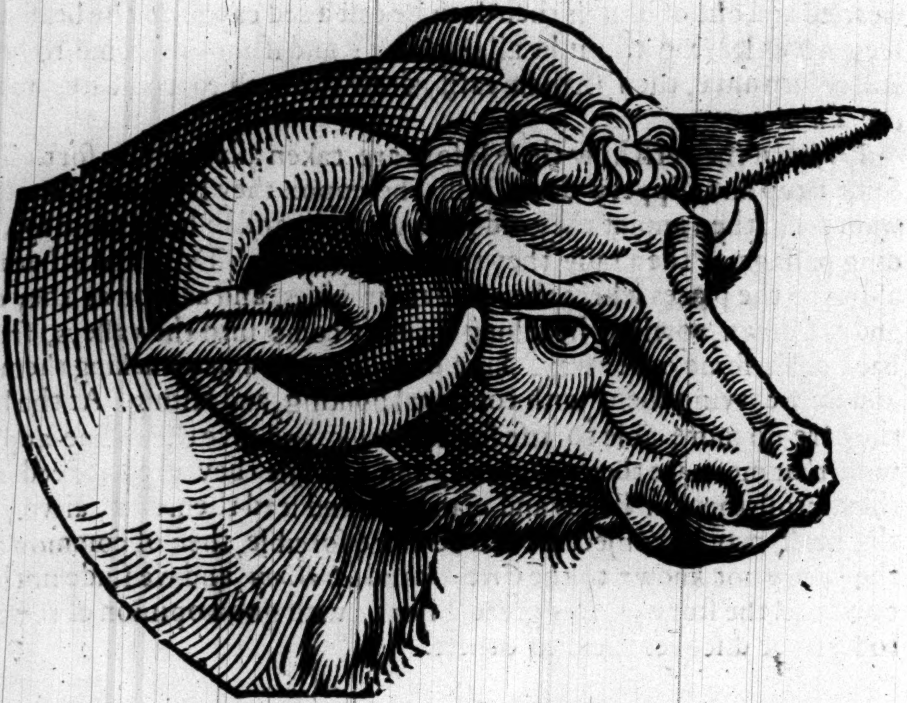


IN the Woods of *Scotland*, called *Callender* or *Caldar*, and in ancient time *Calydonia*, which reacheth from *Monteth* and *Erunal*, unto *Atholia* and *Loqubabria*, there are bred white Oxen, maned about the neck like a Lyon, but in other parts like ordinary and common Oxen. This wood was once full of them, but now they are all ſlain, except in that part which is called *Cummirnald*. This beaſt is ſo

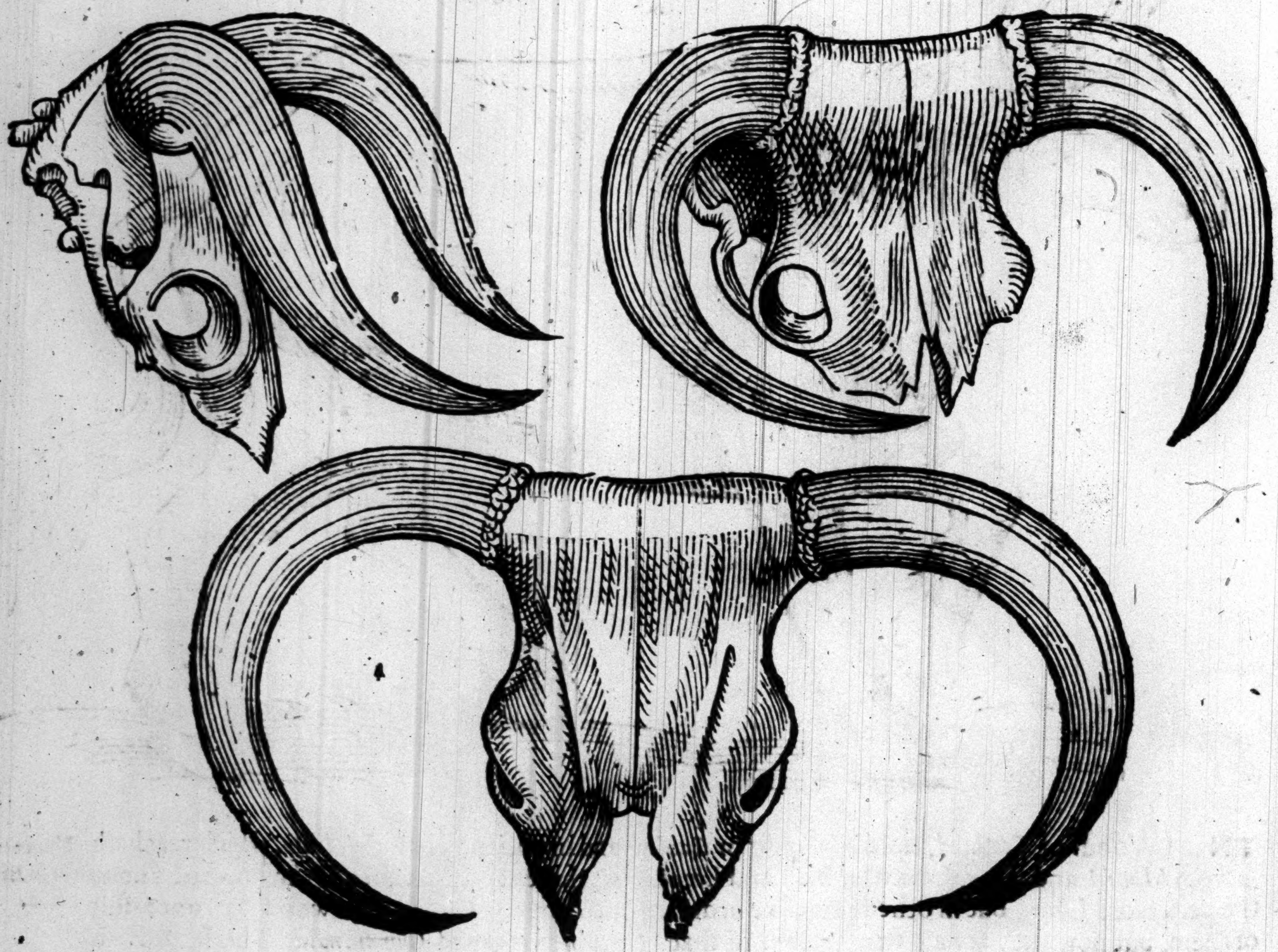
Places where theſe Biſons abide.

The nature of this Biſon. hateful and fearful of mankind, that it will not feed of that graſſe or thoſe hearbs, whereof he ſavoureth a man hath touched, no not for many days together; and if by art or policy they happen to be taken alive, they will die with very ſullen grief. If they meet a man, preſently they make force at him, fearing neither Dogs, Spears, nor other weapons. Their fleſh is very pleaſant, though full of ſinews, and very acceptable to the greateſt Nobles, for which cauſe they are grown to a ſmall number; their qualities being like to the former beaſt, excepting their colour and beard, I will term them a white *Calydonian*, or *Scotian BISON.*

BONASUS, the figure of the Head and Horns.



Of the name. THis beaſt is called in *Greek Bonaſos*, and in *Latin*, *Bonaſus*, and is alſo called *Monops*, or *Monopios*, and once in *Ariſtotle*, *Bolinthus*, the *Bohemians*, *Loli*, now the *Germans* & *Engliſh* call the long hair about the neck of any beaſt, a *Mene* or Mane, from whence cometh this word *Monapios*, which ſignifieth a maned Ox. The reaſon of the name *Monapios*. This *Biſon* is the greateſt beaſt, Bull or Ox, though it be ſhorter in length, yet are the ſides larger and broader then all other. Places of their breed. They are bred in *Pæonia* in the mountain *Meſapus*, not in *Lydia* and *Phrygia*, as *Solinus* and *Albertus* have delivered; being deceived, becauſe the *Pæonians* were joyned with the *Medians* which they derive from *Madi* a people of *Aſia*, whereas the *Pæonians* and *Medi* in *Pliny*, (as is obſerved by *Hermolaus* in his *Caſtigations* of *Pliny*) are a people of *Thracia* in *Europe*: ſo called of *Pæon* the Son of *Pauſanias.* *Endymion* and brother of *Epeus*, who was ſeated near the river *Axius* in *Macedonia*: for it was agreed



betwixt the two brethren ſtriving for the kingdom, that he which was overrun by the other, ſhould yeeld the kingdom in quietneſs to his brother.

His parts.

Ariſtotle.

His fleſh, and diſpoſition to anger.

His fight in flying.

The ſecret operation of his dung.

The reaſon of the heat and operation of their excrement.

Their place and ſuccour for Calving.

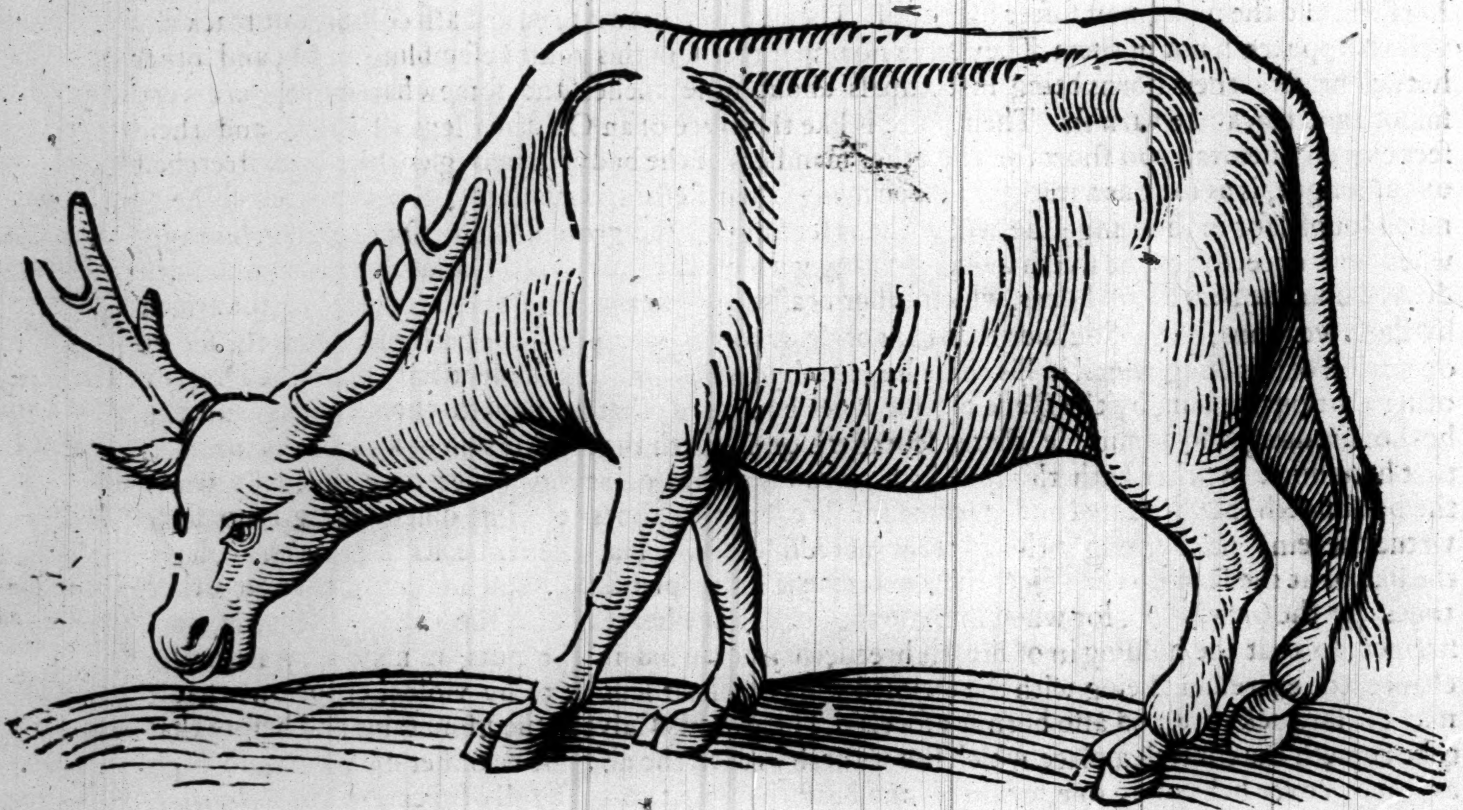
The head of this beaſt is like the head of an Ox or Bull, his horns bending round to the ſides of the cheek, by reaſon whereof he hath no defence by them, neither can a man be hurt that is caſt upon them. His neck is very thick with a large mane, from his eyes down to his ſhoulders in length like an Horſes, but the hair thereof is much ſofter, and lyeth more ſmoothly, the uppermoſt hairs being harſher, and the undermoſt ſofter like wool. Their colour betwixt red and aſh colour, but black and yellow appeareth not in them. They have no upper teeth, in this point reſembling an Ox and other horned beaſts; their horns being in compaſs about nine inches and ſomewhat more, are very ſmooth and black like varniſh. Their voice is like the voice of an Ox, their legs all hairy, and their feet cloven, their tail too ſhort for the other members of the body like a Bugles, their back ſtretched out at length, is as long as a ſeat for ſeaven men; their fleſh is very ſweet, for which cauſe he is much ſought for in hunting; he will with his feet dig up the ground like an Ox or Bull in his rage; when he is once ſtruck, he flyeth away, fighting with his heels backward; and whereas nature hath denyed him the benefit of horns, which other beaſts have, ſo that he is only adorned and not armed by thoſe weapons, like a Souldier that cannot draw forth his Sword; ſhe hath given him the ſecret operation of his dung, which in his chaſe he caſteth forth of his body ſo plentifully upon the Dogs or other that purſue him, by the ſpace of four paces backward, that he ſtayeth their courſe, and the heat of his dung is ſo admirable, that it ſcorcheth or burneth the hair or skin of any beaſts or men that hunt him: neither hath this time ſuch vertuous operation at any other time, but only when the beaſt flyeth, being hunted and purſued for life, at other times it lying quiet, there is no ſuch virtue therein: neither ought this to ſeem incredible, ſeeing many other beaſts in their chaſe, have the like or at the leaſt do then eject their excrement more plentifully and noiſomly then at other times: as the *Cuttell-fiſh*, for when in chaſe the intrails are heated, and the paſſage ſomewhat reſtrained, ſo that the holding in of breath breedeth more wind in the guts, it may very naturally chance, the excrement being with the incloſed wind and heat ſent forth by violent eruption, that it may flie far backward, and alſo burn as aforeſaid. Theſe beaſts Calve in the Mountains, and before that time cometh ſhe chuſeth a place, which ſhe walleth in with the abundance of her own dung, ſo high as it may cover her young one, for there is no beaſt that is naturally ſo full of excrement as a *Bonaſus*. Their ears are very broad as the Poet ſaith, *Patulæ camuris ſub cornibus aures*, broad ears, under crooked winding blunt horns; the skin is ſo large, that it hath covered a good part of a houſe, the inward colour whereof is like the earth whereon the beaſt did uſe to feed. That excellent Phyſitian of *England* *John Cay*, did ſend ſend me the head of this beaſt, with this deſcription, in an Epiſtle, ſaying.

The relation of *John Cay* a Doctor of Phyſick in *England*.

> “I Send unto thee the head of a great wilde beaſt, the bare mouth and the bones ſupporters of the horns being very weighty, and therefore bearing up ſome like heavy burden, the horns are recurved and bending backward, ſo that they do not ſpire directly downward but rather forward, though in a crooked manner, which becauſe it could not appear forward, as they do when the beaſt is alive, therefore they are deſcribed turning on the one ſide: the ſpace betwixt the horns or breadth of the forehead, is three *Roman* palms and a half; the length of the horns, three palms one finger and a half; and their compaſs where they are joyned to the head, is one foot one palm and a half. In the Caſtle of *Warwick* where are preſerved the Armor and Spear of one Earl *Guy* of *Warwick* a moſt valiant ſtrong man, I have ſeen the head of a beaſt not unlike to this, ſaving that if the bones whereon the horns grow ſhould be joyned together, then would the horns be longer, and of another crooked faſhion. And in the ſame place there is alſo the neckbone of the ſame beaſt, the compaſſe thereof is at the leaſt three *Roman* feet two palms and a half, whereunto I may alſo add that ſhoulder-blade which hangeth on the North gate of the City of *Coventry*, being in the loweſt part three foot broad and two fingers, and four foot long and two palms: and the compaſſe of the arme hole wherein the ſhoulder is joyned, is three foot and one palm, and the whole compaſſe of them both in breadth and length, is eleven foot one palm and a half.
>
> “In the Chappel of the ſaid great *Guy*, diſtant from *Warwick* about one thouſand paces (or a mile) there hangeth a rib of this beaſt (as I ſuppoſe) the compaſſe whereof in the ſmalleſt place is three palms, and in length it is ſix foot and a half, the rib is dry and rotten in the ſuperficies thereof. The vulgar people affirm, that it is the peece of a Boar, which was ſlain by Earl *Guy*; other ſay, by tradition of their elders, that it is a piece of a wilde Cow remaining neer *Coventry*, and did much harm to many people; which latter opinion I embrace, taking it for a *Bonaſus*, who in moſt things is like a Cow, and therefore ſome affirm it is an *Indian* Cow (but ignorantly) becauſe any thing that is not common is uſually attributed to ſome ſtrange Countrey breed (with an addition to that it moſt of all reſembleth.) *Thus far D. Cay.*

Whereunto I aſſent, holding his conjectures to be very probable, untill by the diligent induſtry of ſome other, or my own eye-ſight we may deliver to the world ſome more aſſured and perfect knowledge in theſe kind of beaſts. Exhorting in the mean ſeaſon all learned men, to diſcover more exactly their preſent or future knowledge herein, to the high benefit of all them that are diligent ſtudents in this part of Gods creation.

Of the *BUFFE*.



Of the name and kind of Buffes.

A Buffe is called in *Greek*, *Tarandos*; and in *Latine*, *Tarandus*; which ſome have corrupted barbarouſly, tearming it *Parandrus* and *Pyradus*; and I conjecture that it is the ſame beaſt, which the *Polonians* call *Tur* or *Thuro*; howſoever other confound this *Tarandus* with another beaſt, called *Rangifer*; and ſome with a kinde of *Urus*, which have many properties in common with a Buffe, yet my reaſon, why the *Polonian Tur* can be no other then a Buffe, is, becauſe the head and mouth differeth from thoſe beaſts; and alſo becauſe this is taken in *Sarmatia*, where the common people call it *Daran*, or *Darau*; although the later Writers call it *Duran* and *Durau*, and tranſlate it a *Bonaſus*, which can by no means agree with this beaſt; and the name of *Daran* is eaſily derived from *Tarandus*, or *Tarandos*.

Alſo that the *Polonian Tur* ſhould not be a Buffe, all that can be objected, is, that the horns thereof are cragged or branched, which thing *Pliny* attributeth to a Buffe: whereunto I anſwer, that the Ancients did confound a Buffe with an Elk, and a *Rangifer*; for in the deſcription of an Elk they vary, divers times miſtaking one for another, by reaſon that they wrote altogether by report, none of them being ſeen in their Countries, and therefore may eaſily be deceived in a Buffe, as well as in an Elk. The chief Authors of this opinion have been Sir *Thomas Eliot*, and *Georgius Agricola*, with whom I will not contend, nor with any other man that can give better reaſon: for *Pliny* maketh a Buffe to be a beaſt proportioned betwixt an Hart and an Oxe, of which ſort is not a *Rangifer*, as ſhall be manifeſted; and if it be, yet can it never appear that a *Rangifer* doth change colour like a Buffe, as alſo we will make more evident: So then diſtinguiſhing a Buffe from a Rangifer, and preſuming that the *Polonian Thuro*, or *Tur*, is a Buffe; we will proceed to his deſcription.

Pliny.
The ſeveral parts.
Silvius.
Heſychius.
A miracle in his colour.

The head of this beaſt is like the head of a Hart, and his horns branched or ragged; his body for the moſt part like a wilde Oxes, his hair deep and harſh like a Bears, his hide is ſo hard and thick, that of it the *Scythians* make breaſt-plates, which no dart can pierce through. His colour, for the moſt part, like an Aſſes, but when he is hunted or feared, he changeth his hew into whatſoever thing he ſeeth; as among trees he is like them; among green boughs he ſeemeth green; amongſt rocks of ſtone, he it tranſmuted into their colour alſo; as it is generally by moſt Writers affirmed: as *Pliny* and *Solinus* among the Ancient; *Stephanus* and *Euſtathius* among the later Writers.

This indeed is the thing that ſeemeth moſt incredible, but there are two reaſons which draw me to ſubſcribe hereunto: firſt, becauſe we ſee that the face of men and beaſts through fear, joy, anger, and other paſſions, do quickly change; from ruddy to white, from black to pale, and from pale to ruddy again. Now as this beaſt hath the head of a Hart, ſo alſo hath it the fear of a Hart, but in a higher degree; and therefore by ſecret operation it may eaſily alter the colour of their hair, as a paſſion in a reaſonable man, may alter the colour of his face.

The ſame things are reported by *Pliny* of a beaſt in *India* called *Lycaon*, as ſhall be afterward declared; and beſides theſe two, there is no other among creatures covered with hair, that changeth colour. Another reaſon forcing me to yeeld hereunto is, that in the Sea a *Polypus*-fiſh, and in the earth among creeping things, a *Chamæleon*, do alſo change their colour in like ſort and faſhion: whereunto it may be replyed, that the *Chamæleon* and *Polypus*-fiſh, are pilled or bare without hair, and therefore may more eaſily be verſe-coloured; but it is a thing impoſſible in nature, for the hair to receive any tincture from the paſſions: but I anſwer, that the ſame nature can multiply and diminiſh her power in leſſer and ſmaller Beaſts, according to her pleaſure, and reſerveth an operation for the nails, and feathers of birds, and fins and ſcales of fiſhes, making one ſort of divers colour from the other: and therefore may and doth as forcibly work in the hairs of a Buffe, as in the skin of a *Chamæleon*; adding ſo much more force to tranſmute them, by how much farther off they ſtand from the blood, like as an Archer, which ſetteth his arm and bow higher to ſhoot farther, and therefore it is worthy obſervation, that as this beaſt hath the beſt defence by her skin above all other, ſo ſhe hath a weakeſt and moſt timerous heart above all other.

Theſe Buffes are bred in *Scythia*, and are therefore called *Tarandi Scythici*; they are alſo among the *Sarmatians*, and called *Budini*, and neer *Gelonis*, and in a part of *Poland*, in the *Duchy* of *Mazavia*, betwixt *Oſzezke* and *Garvolyin*. And if the *Polonian Thuro* before mentioned, have a name (whereof I am ignorant) then will I alſo take that beaſt for a kinde of *Biſon*. In *Phrygia* there is a territory called *Tarandros*, and peradventure this beaſt had his name from that Countrey, wherein it may be he was firſt diſcovered and made known.

Countries of Buffes.

Stephanus.

The quantity of this beaſt, exceedeth not the quantity of a wilde Ox, whereunto in all the parts of his body he is moſt like, except in his head, face, and horns: his legs and hoofs are alſo like an Oxes. The goodneſs of his hide is memorable, and deſired in all the cold Countries in the world, wherein only theſe beaſts and all other of ſtrong thick hides are found, for the thinneſt and moſt unprofitable skins of beaſts, are in the hot and warmer parts of the world: and God hath provided thick, warm, moſt commodious, and precious covers for thoſe beaſts that live fartheſt from the Sun. Whereupon many take the hides of other beaſts for Buffe, for being tawed and wrought artificially they make garments of them, as it is daily to be ſeen in *Germany*.

The quantity or ſtature of a Buffe.

The hide is moſt profitable to man.

Of the *Vulgar* BUGIL.

A Bugil is called in *Latine*, **Bubalus**; and **Buffalus**; in *French*, **Beufle**; in *Spaniſh*, **Buſano**; in *German*, **Buffel**; and in the *Illyrian* tongue, **Bouwol**. The *Hebrews* have no proper word for it, but comprehend it under *To*, which ſignifieth any kind of wilde Oxen; for neither can it be expreſſed by **Meriah**, which ſignifieth fatted Oxen; or **Bekarmi**, which ſignifieth Oxen properly; or **Jachmur**, which the *Perſians* call **Kutzcobi**, or **Buzcobi**, and is uſually tranſlated a Wilde-Aſſe. For which beaſt the *Hebrews* have many words; neither have the *Græcians* any proper word for a vulgar Bugil, for *Boubatos* and *Boubatis*, are amongſt them taken for a kinde of **Roe-buck**. So that this *Bubalus* was firſt of all ſome modern or barbarous term in *Africk*, taken up by the *Italians*, and attributed to this beaſt, and many other for whom they knew no proper names. For in the time of *Pliny*, they uſed to call ſtrange beaſts like Oxen or Bulls, *Uri*; as now a days (led with the ſame error, or rather ignorance) they call ſuch *Bubali*, or *Buffali*. The true effigies of the vulgar Bugil, was ſent unto me by *Cornelius Sittardus*, a famous Phyſitian in *Norimberg*; and it is pictured by a tame and familiar Bugil, ſuch as liveth among men for labour, as it ſeemeth to me. For there is difference among theſe beaſts, (as *Ariſtotle* hath affirmed) both in colour, mouth, horn, and ſtrength.

The ſeveral names.

The Original of the term *Bubalus*.

This vulgar Bugil, is of a kinde of wilde Oxen, greater and taller then the ordinary Oxen, their body being thicker and ſtronger, and their limbs better compact together; their skin moſt hard, their other parts very lean, their hair ſhort, ſmall, and black, but little or none at all upon the tail, which is alſo ſhort and ſmall. The head hangeth downward to the earth, and is but little, being compared with the reſidue of his body; and his aſpect or face betokeneth a tameable and ſimple diſpoſition. His fore-head is broad and curled with hair, his horns more flat then round, very long, bending together at the top, as a Goats do backward; inſomuch as in *Crete*, they make bows of them: and they are not for defence of the beaſt, but for diſtinction of kinde and ornament. His neck is thick and long, and his rump or neather part of his back is lower then the reſidue, deſcending to the tail. His legs are very great, broad and ſtrong, but ſhorter then the quantity of his body would ſeem to permit. They are very fierce being tamed, but that is corrected by putting an Iron ring through his Noſtrils, whereinto is alſo put a cord, by which he is led and ruled, as a Horſe by a bridle (for which cauſe in *Germany* they call a ſimple man over-ruled by the adviſe of another to his own hurt, a Bugle, led with a ring in his noſe.)

Of the vulgar Bugil and her parts.

Bellonius.

Uſe of their horns.

Eraſmus.

His feet are cloven, and with the formoſt he will dig the earth, and with the hindmoſt fight like a Horſe, ſetting on his blows with great force, and redoubling them again if his object remove not. His voyce is like the voyce of an Oxe; when he is chaſed he runneth forth right, ſeldom winding or turning, and when he is angred, he runneth into the water, wherein he covereth himſelf all over, except his mouth, to cool the heat of his blood; for this beaſt can neither endure outward cold nor inward heat: for which cauſe, they breed not but in hot Countries, and being at liberty are ſeldom from the waters. They are very tame, ſo that children may ride on their backs; but on a ſodain they will run into the waters, and ſo many times indanger the childrens lives.

Albertus.

The manner of his flight.

Nature of their breeding places.

Pet. Creſcent.

Their

Of their young ones and milk.

Their love to their young ones is very great, they alway give milk from their copulation to their Calving; neither will they ſuffer a Calf of another kinde (whom they diſcern by their ſmell) to ſuck their milk, but beat it away if it be put unto them: wherefore their keepers do in ſuch caſe, anoynt the Calf with Bugils excrement, and then ſhe will admit her ſuckling.

Albertus. Their ſtrength in labour.

Pet. Creſcent.

Uſe of their hides.

Bellonius.

They are very ſtrong, and will draw more at once then two Horſes; wherefore they are tamed for ſervice, and will draw Waggons and Plows, and carry burdens alſo, but they are not very fit for Carts: yet when they do draw, they carry alſo great burthens or loads tyed to their backs with ropes and wantyghtes. At the firſt ſetting forward they bend their legs very much, but afterward they go upright, and being over-loden they will fall to the earth, from which they cannot be raiſed by any ſtripes untill their load or carriage be leſſened. There is no great account made of their hides, although they be very thick: *Solinus* reporteth, that the old *Britons* made Boats of Oſier twigs or reeds, covering them round with Bugils skins, and ſayled in them: and the Inhabitants of the Kingdom of *Caraiani*, make them bucklers and ſhields of Bugils skins, which they uſe in Wars; the fleſh is not good for meat, which cauſed *Baptiſta Fiera* to make this Poem:

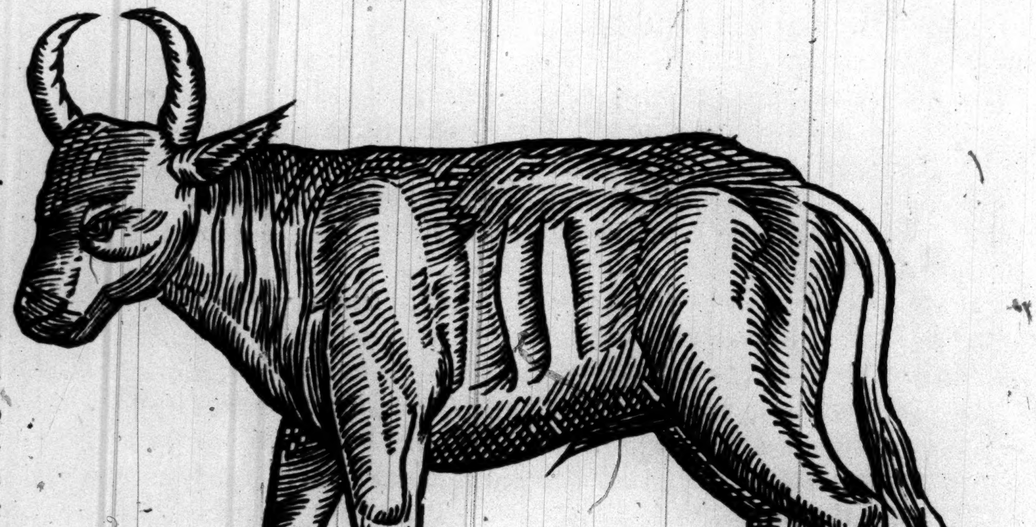
Bubalus hinc abeat, neve intret prandia noſtra:
Non edat hunc quiſquam: ſub juga ſemper eat.

For they ingender melancholy, and have no good taſte, being raw they are not unpleaſant to behold, but ſod or roſted they ſhew a deformed ſubſtance. The milk of this beaſt maketh very hard Cheeſe, which taſteth like earth.

The phyſick made out of Bugils.

The medicines made of this beaſt are not many: with the horns or hoofs they make rings to wear againſt the Cramp, and it hath been believed (but without reaſon) that if a man or woman wear rings made of the horns or hoofs of a Bugil in the time of carnal copulation, that they will naturally fly off from their fingers; whereas this ſecret was wont to be attributed to rings of *Chryſolytes* or *Smaragde* ſtones. To conclude, ſome teach husbandmen to burn the horns or dung of their Bugils on the windy ſide of their corn and plants, to keep them from Cankers and blaſting: and thus much of the vulgar Bugil, called *Bubalus Recentiorum*: whoſe beginning in this part of the world is unknown, although in *Italy*, and other parts of *Europe* they are now bred and foſtered.

Of the *African* BUGIL.



The Countrey of this beaſt.

B*Ellonius* reporteth, that he ſaw in *Cair* a ſmall beaſt, which was in al things like a little Oxe, of a beautiful body, full of fleſh, well and neatly limmed, which he could take for no other then the *African* Oxe, or Bugill of the old *Grecians*, which was brought out of the Kingdom of *Ajamia*, unto the City *Cair*; it was old, and not ſo big as a *Hart*, but greater then a *Roe*; he never in all his life took more pleaſure to behold a beaſt, then in the viewing the excellent beauty of every part in this creature. His hair was yellowiſh, gliſtering as if had been combed and trimmed by the art of a Barber, under his belly it was ſomewhat more red and tauny then upon his back. His feet in all things like a vulgar Bugils, his legs ſhort and ſtrong, the neck ſhort and thick, whereon the two dew-laps of his creſt did ſcarſe appear. His head like an Oxes, and his horns growing out of the crown of his head, black, long, and bending like an half Moon; whereof he hath no uſe to defend himſelf, or anoy another, by reaſon their points turn inward. His ears like a Cows, and ſhoulder blades ſtanding up a little above the ridge very ſtrongly. His tail to the knees like a *Camelopardals*, from whence hangeth ſome few black hairs, twice ſo great as the hairs in a Horſes tail. His voyce was like an Oxes, but not ſo ſtrong and loud: to conclude therefore, for his deſcription; if a man conceive in his minde a little yellow neat Oxe, with ſmooth hair, ſtrong members, and high horns above his head, like a half Moon; his minde cannot erre from the true and perfect ſhape of this beaſt. There was ſuch a one to be ſeen of late at *Florence*, under the name of an *Indian* Oxe, ſaving his head was greater and longer, his horns not high nor bending together, but ſtanding up right, and a little wreathing into ſpires above their root, and the hinder part of the back much lower then the ſhoulders, but it may be the obſerver of this beaſt failed and took not the true deſcription of it.

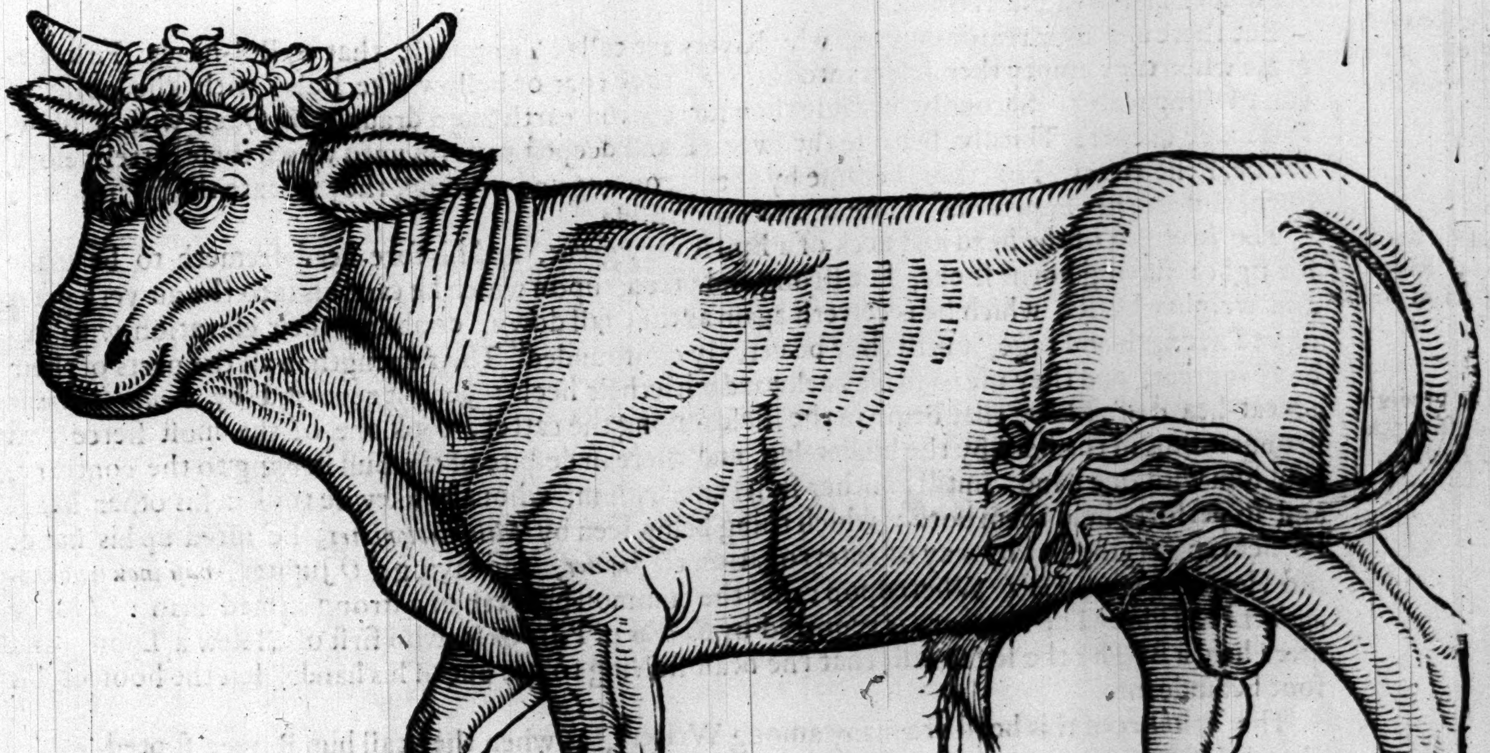
The nature of this beaſt.

This creature or *African Bugil*, muſt be underſtood to be a wilde beaſt, and not of a tame kinde, although *Bellonius* expreſſeth not ſo much. *Leo* in his deſcription of *Africk*, relateth a diſcourſe of a certain beaſt called *Laut*, or *Daut*, who is leſs then an Oxe, but of more elegant feature in his legs, white horns, and black nails, which is ſo ſwift, that no beaſt can out-run it, except a *Barbary* Horſe: it is taken moſt eaſily in the Summer time: with the skin whereof they make targets and ſhields, which cannot be pierced by any weapon, except Gunſhot; for which cauſe they ſell them very dear; which is conjectured to be the *Bugil* that *Bellonius* deſcribeth, although it be not juſt of the ſame colour, which may vary in this beaſt as well as in any other, and I have a certain *Manuſcript* without the Authors name, that affirmeth there be *Bugils* in *Lybia*, in likeneſs reſembling a Hart and an Oxe, but much leſſer, and that theſe beaſts are never taken aſleep, which cauſeth an opinion that they never ſleep; and that there is another Bugil beyond the *Alpes*, neer the River *Rhene*, which is very fierce and of a white colour.

Of a ſtrange horn in *Argentine*.

There is a horn in the Town-houſe of *Argentine* four *Roman* cubits long, which is conjectured to be the horn of ſome *Urus* (or rather as I think of ſome *Bugil*) it hath hung there at the leaſt two or three generations, and by ſcraping it I found it to be a horn, although I forgat to meaſure the compaſs thereof, yet becauſe antiquity thought it worthy to be reſerved in ſo honourable a place for a monument of ſome ſtrange beaſt, I have alſo thought good to mention it in this diſcourſe: as when *Philip* King of *Macedon*, did with a dart kill a wilde Bull at the foot of the Mountain *Orbelus*, and conſecrated the horns thereof in the Temple of *Hercules*, which were fifteen yards or paces long, for poſterity to behold.

Of the BULL.



A Bull is the husband of a Cow, and ring-leader of the herd, (for which cauſe *Homer* compareth *Agamemnon* the great Emperor of the *Grecian* Army to a Bull) reſerved only for procreation, and is ſometimes indifferently called an Oxe, as Oxen are likewiſe of Authors taken for Bulls, *Virg*.

> *Pingue ſolum primis extemplo menſibus anni,*
> *Fortes invertant boves.*———

The true etymologie of the name *Taurus*.

The *Hebrews* call him *Tor*, or *Taur*; which the *Chaldes* call *Abir*, for a ſtrong Oxe: ſo the *Arabians*, *Taur*: the *Græcians*, *Tauros*; the *Latines*, *Taurus*; the *Italians*, *Tauro*; the *French*, *Taureau*; the *Germans*, *ein Stier*, *ein Vuucherſtier*, *das Vucher*, *ein Mummelſtier*, *ein Hagen*, and *ein Bollen*; the *Illyrians*, *Vul*, and *Iunecz*: by all which ſeveral appellations, it is evident, that the name *Taurus* in *Latine* is not derived from *Tanouros*, the ſtretching out the tayl; nor from *Gauros*, ſignifying proud; but from the *Hebrew*, *Tor*; which ſignifieth great: upon which occaſion, the *Græcians* called all large, great, and violent things, by the name of *Tauroi*, and that word *Taurus* among the *Latines*, hath given denomination to Men, Stars, Mountains, Rivers, Trees, Ships, and many other things, which canſed *Ioachimus Camerarius* to make thereof this ænigmatical riddle.

A Riddle upon the word *Taurus*.

Mæchus eram regis; ſed lignea membra ſequebar.
Et Cilicum mons ſum: ſed mons ſum nomine ſolo.
Et vibor in cœlo: ſed in ipſis ambulo terris.

That is in divers ſenſes, *Taurus* was a Kings *Pander*, the root of a tree, a Mountain in *Cilicia*, a Bull, a Mountain in name, a Star or ſign in heaven, and a River upon the earth: ſo alſo we read of *Statilius Taurus*, and *Pomponius Vitulus*, two *Romans*. It was the cuſtom in thoſe days, to give the names of beaſts to their children, eſpecially among the *Troglodytæ*, and that Adulterer which raviſhed *Europa*, was *Taurus* the King of *Crete*; or as ſome ſay, a King that came in a Ship, whoſe Enſign and name was the Bull; and other affirm, that it was *Iupiter* in the likeneſs of a Bull, becauſe he had ſo defloured *Ceres* when he begat *Proſerpina*, and afterward defloured *Proſerpina* his daughter, in the likeneſs of a Dragon. It is reported that when *Achelous* did fight with *Hercules* for *Deianeira* the Daughter of *Oeneus* King of *Calydon*, finding himſelf to be too weak to match *Hercules*, turned himſelf ſuddenly into a Serpent, and afterward into a Bull; *Hercules* ſeeing him in that proportion, ſpeedily pulled from him one of his horns, and gave it to *Copia* the companion of Fortune, whereof cometh that phraſe of *Cornucopia*. Afterward, *Achelous* gave unto *Hercules* one of the Horns of *Amalthea*, and ſo received his own again, and being overcome by *Hercules*, hid himſelf in the River of *Thoas*, which after his own name bending forth into one horn or crook, was called *Achelous*. By theſe things the Poets had ſingular intentions to decipher matters of great moment under hidden and dark Narrations.

Reaſons why rivers are called *Taurocrani*.

But there are four reaſons given, why Rivers are called *Taurocrani*: that is, Bul-heads. Firſt, becauſe when they empty themſelves into the Sea, they roar or bellow like Buls, with the noiſe of their falling water. Secondly, becauſe they furrow the earth like a draught of Oxen with a plow, and much deeper. Thirdly, becauſe the ſweeteſt and deepeſt paſtures unto which theſe cattel reſort, are near the rivers. Fourthly, becauſe by their crooking and winding, they imitate the faſhion of a horn, and alſo are impetuous, violent, and unreſiſtible.

The ſtrength and ſeveral parts of Bulls.

The prodigious ſtrength of *Titornus*.

The ſtrength of the head and neck of a Bull is very great, and his fore-head ſeemeth to be made for fight: having horns ſhort, but ſtrong and piked, upon which he can toſs into the air very great and weighty beaſts, which he receiveth again as they fall down, doubling their elevation with renewed ſtrength and rage, untill they be utterly confounded. Their ſtrength in all the parts of their body is great, and they uſe to ſtrike backward with their heels: yet is it reported by *Cælius Titornus* a Neat-head of *Ætolia*, that being in the field among the cattel, took one of the moſt fierce and ſtrongeſt Buls in the herd by the hinder-leg, and there in deſpite of the Bull ſtriving to the contrary, held him with one hand, untill another Bull came by him, whom he likewiſe took in his other hand, and ſo perforce held them both: which thing being ſeen by *Milo Crotoniates*, he lifted up his hands to heaven, crying out by way of Interrogation to *Jupiter*, and ſaying: O Jupiter, *haſt thou ſent another* Hercules *amongſt us?* Whereupon came the common proverb of a ſtrong armed man: *This is another* Hercules. The like ſtory is reported by *Suidas* of *Polydamas*, who firſt of all ſlew a Lyon, and after held a Bull by the leg ſo faſt, that the beaſt ſtriving to get out of his hands, left the hoof of his foot behinde him.

Their ſeveral parts.

The *Epithites* of this beaſt are many among Writers, as when they call him Brazen-footed, wilde, chearful, ſharp, plower, warrier, horn-bearer, blockiſh, great, gliſtering, fierce, valiant, and louring, which ſeemeth to be natural to this beaſt; inſomuch as the *Grammarians* derive *Torvitas*, grimneſs or lowring, from *Taurus*, a Bull, whoſe aſpect carryeth wrath and hatred in it: wherefore it is Proverbially ſaid in *Weſtphalia*, of a lowring and ſcouling countenance, *Err ſic als ein ochs der dem ſleſchuwer Entloffen iſt*: That is, he looketh like a Bull eſcaped from one ſtroke of the Butcher. Their horns are leſſer but ſtronger then Oxen or Kie, for all beaſts that are not gelded, have ſmaller horns and thicker ſkuls then other, but the Buls of *Scythia* as is ſaid elſewhere, have no horns. Their heart is full of nerves or ſinews, their blood is full of ſmall veins, for which cauſe he ingendereth with moſt ſpeed, and it hardneth quickly. In the gall of a Bull there is a ſtone called *Gners*, and in ſome places the gall is called *Mammaſur*. They are plentiful in moſt Countries, as is ſaid in the diſcourſe of Oxen, but the beſt ſort are in *Epirus*, next in *Thracia*, and then in *Italy*, *Syria*, *England*, *Macedonia*, *Phrygia*, and *Belgia*: for the Bulls of *Gallia* are impaired by labour, and the Buls of *Æthiope* are the *Rhinocerotes*, as the Buls of the woods are Elephants.

Countries of their beſt breed.

Their time of copulation.

They deſire the Cow at eight months old, but they are not able to fill her till they be two years old, and they may remain tolerable for breeders untill they be 12. and not paſt. Every Bull is ſufficient for ten Kie, and the Buls muſt not feed with the Kie, for two months before their leaping time, and then let them come together without reſtraint, and give them Peaſe, or Barley, if their paſture be not good. The beſt time to ſuffer them with their females, is the midſt of the Spring, and if the Bull be heavy, take the tayl of an Hart and burn it to powder, then moiſten it in Wine, and rub therewith the genitals of a Bull, and he will riſe above meaſure into luſt: wherefore, if it be more then tolerable, it muſt be allayed with Oyl. The violence of a Bull in the act of copulation is ſo great, that if he miſs the females genital entrance, he woundeth or much harmeth her in any other place; ſending forth his ſeed without any motion except touching, and a Cow being filled by him, he will never after leap her, during the time ſhe is with Calf: wherefore the *Egyptians* decipher by a Bull in health, without the itch of luſt, a temperate continent man, and *Epictetus* ſaying of *Suſtine* and *Abſtine*; that is *Bear* and *Forbear*, was emblematically deſcribed by a Bull, having his knee bound and and tyed to a Cow in the hand of the Neat-herd, with this ſubſcription. *Hard fortune is to be indured with patience, and happineſs is often to be feared, for* Epictetus *ſaid, Bear and forbear; we muſt ſuffer many things, and with-hold our fingers from forbidden fruits; for ſo the Bull which ſwayeth rule among beaſts, being bound in his right knee, abſtaineth from his female great with young.*

Their food for procreation.

Quintilius.

When they burn in luſt, their wrath is moſt outragious againſt their companions in the ſame paſture, with whom they agreed in former times, and then the conquerer coupleth with the Cow: but when he is weakened with generation, the beaſt that was overcome, ſetteth upon him afreſh, and oftentimes overcometh: which kinde of love-fight is elegantly deſcribed by *Oppianus*, as followeth. One that is the chiefeſt ruleth over all the other herd, who tremble at the ſight and preſence of this their eager King, and eſpecially the Kye, knowing the inſulting jealouſie of their raging husband. When the herds of other places meet together, beholding one another with diſdainful countenances, and with their loughing terrible voices provoke each other, puffing out their flaming rage of defiance, and dimming the gliſtering light with their often duſt-beating-feet into the air, who preſently take up the challenge, and ſeparate themſelves from the company, joyning together at the ſound of their own trumpets-loughing voyce, in fearful and ſharp conflicts, not ſparing, not yeelding, not retiring, till one or both of them fall wounded to the earth: ſometimes turning round, ſometimes holding heads together, as if they were Coach-fellows: and as two mighty ſhips well manned, with ſufficient arms and ſtrength, by force of winds and floods violently ruſhing one againſt another, do break and ſplit aſunder, with the horrible cry of the Souldiers, and ratling of the armour: ſo do theſe Buls, with voice, legs, horns, and ſtrength, like cunning and valiant Martialiſts, make the ſounds of their blows to ring betwixt heaven and earth, untill one of them be vanquiſhed and overthrown.

The fight or combate of Buls.

The poor over-comed beaſt, with ſhame retireth from the herd, and will no more appear, untill he be enabled to make his party good againſt his triumphant adverſary: then he feedeth ſolitary in the Woods and Mountains, for it is proverbially ſaid, to ſignifie a ſingle and unmarryed life, *abiit Taurus in ſilvam*: that is, the Bull is gone to the Wood to live ſolitarily without his female, often exerciſing himſelf like a ſtudious Champion againſt the day of a new combate, and when he findeth his ſtrength increaſed, and his courage armed for the day of battel, then roareth he in the Woods and Mountains, to provoke his adverſary to anſwer; and perceiving his own voyce to be more fierce and violent then is his enemies, forth he proceedeth like ſome refreſhed Giant, confident in his ſtrength, deſcending the liſts of a ſecond combate, where he eaſily overcometh the Victor, weakned with copulation, and not exerciſed or fitted to ſuch a triall through fulneſs and venery: ſo the firſt that was vanquiſhed becometh Conqueror.

The very ſame is in other words deſcribed by *Virgil*: Bulls are enemies to all beaſts that live upon prey, as Bears, Lyons, and Wolves: when they fight with Wolves, they winde their tails together, and ſo drive them away with their horns; when the Bear fighteth with an Oxe, ſhe falleth on her back, watching opportunity to take his horns with her fore-feet; which if ſhe catch, with the weight of her body ſhe wearieth the beaſt, who is ſo earneſt in combate with theſe beaſts, that they will fight their tongues hanging out of their mouths. The Crow is enemy to Bulls and Aſſes, for in her flight ſhe will ſtrike at their eyes; and it is eaſier for the Bull to be revenged of a Lyon, then on ſuch a bird: Red colour ſtirreth up a Bull to fight, neither can the Neat-herds govern theſe with ſuch facility as they do the females, for when they wander and go aſtray, nothing can recall them but the voice of their females for copulation, which they underſtand and hear, being a mile or two diſtant.

Georg. 3.
Their enmity to other beaſts.

The voyce of a Bull is ſharper and ſhriller then is the loughing of a Cow; they are moſt couragious that have ſhort and thick necks, and in their greateſt wildeneſs, if their right knee can be bound, they will not ſtir; or if they be tyed to a wilde fig-tree, which is ſo fearful to the nature of an Oxe or Bull, that it hath been ſeen, how a very few ſticks of that wood have ſod a great quantity of Buls fleſh in ſhorter time, then a far greater number of other wood ſet on fire could perform: which cauſed the *Egyptians* in ancient time, to picture a Bull tyed to a wilde fig-tree, to ſignifie a man that changed his manners through calamity.

Hor. Apollo
A ſecret in the taming of a Bull.

Out of the hides of Bulls, eſpecially their ears, necks, and genitals, is moſt excellent glew confected, but for the moſt part it is corrupted, by ſeething with it old leather of ſhooes or boots: but that of *Rhodes* is without all fraud, fit for Phyſitians and Painters, and evermore the whiter the better, for that which is black is good for nothing; wherefore that which is made out of Bulls hides, is ſo white, that it ſendeth forth a brightneſs, whoſe vertuous conjunction in conglutination is ſo powerful, that it is eaſier to break a whole piece of wood then any part ſo glewed together therewith: and for this invention, we are (ſaith *Pliny*) indebted to *Dedalus* the firſt author thereof. They uſed it in inſtruments of muſick, and ſuch other tender and pretious actions.

Their hides.

Of the gall.

Of the fleſh.

The gall of an Oxe put upon Copper or Braſs, maketh it gliſter like Gold; for which cauſe it is uſed by Players, to colour their counterfeit Crowns. The fleſh of a Bull is good for meat, but yet not ſo good as an Oxe or Cow; yet did the *Egyptians* abſtain from eating Cows fleſh, and not from the fleſh of Bulls.

Leo Afric.

The ſacrificing of Bulls.

Theſe beaſts are uſed in ſome places to plow, in ſome to fight; and it is reported by *Ælianus*, that *Mythridates* King of *Pontus*, beſide his guard of men, had alſo a guard of a Bull, a Horſe, and a Hart, which he tamed with his own hands; ſo that when his followers were aſleep, if any ſtranger came neer, they failed not to awake him, by one of their ſeveral voyces. It is reported alſo, that if the noſtrils of a Bull be anoynted with Oyl of Roſes, he will preſently loſe his eye-ſight: and that in the Lake *Aſphaltites* there can no living creature abide, and yet many Bulls and Camels ſwim therein ſafely. It is but fabulous that there were Bulls in *Colchis*, which did breath out fire, except by that fiction the Poets underſtood the beaſtly rage of the rich Inhabitants. Touching the ſacrificing of Bulls; it was alſo the cuſtom of the old *Egyptians* to ſacrifice a Bull unto *Epaphus*: and their manner was, firſt of all to try him whether it were fit for ſacrifice, by laying meal before them, whereof if they refuſed to taſte, they were adjudged not apt for the Temple.

Cælius.
Gyraldus.
Pliny.

Pauſanias.

The *Druidæ* call a general ſacrifice *Viſcum*, whereby they affirm all grievances may be cured. Firſt they prepared a banquet with ſacrifice under ſome tree, then brought they two white Bulls faſtened together by the horns, and then they gave a drink to any barren creature, woman, or brute beaſt, holding religiouſly, that by that drink they ſhould be made fruitful, and free from all poyſon: Unto ſo great a height did the folly of blinde people ariſe, to put religion in every unreaſonable invention, under pretence of any good intention deviſed by idolatrous Prieſts. As often as they ſlew and offered a Bull, and poured Frankincenſe and Wine upon the hoaſt, they ſaid; The Bull is increaſed with Frankincenſe and Wine: but the *Ionians* did beſt comfort themſelves in their ſacrifices, where the Bull before his death did lough at the Altar: and the *Meſſenians* did binde their Bull which was to be ſacrificed to the ghoſt of *Ariſtomene*, unto certain Pillars in his Sepulchre: if therefore the Bull did ſhake the pillar while he leaped to and fro to get liberty, they took it for a good ſign or *Omen*, but if it ſtood immoveable, they held it a mournful and lamentable thing.

It is likewiſe reported by *Varinus*, that when *Agamemnon* ignorantly killed one of the Harts of *Diana* in *Aulis*, ſhe was ſo wroth, that ſhe ſtayed the winds from blowing upon his Navy, ſo as they could not ſtir out of harbour: hereupon they went to the Oracle, where anſwer was given, that the goddeſs was to be pacified with ſome one of *Agamemnons* blood, therefore *Ulyſſes* was ſent away to fetch *Iphigenia*, the daughter of *Agamemnon* from her mother *Clitemneſtra*, under pretence to be marryed to *Achilles*; but when ſhe was ready to be ſacrificed, the goddeſs took pity on her, and accepted a Bull in her ſtead, which ought not to be thought incredible, ſeeing that in holy Scripture a Ram was ſubſtituted in the place of *Iſaac*.

Proverbs of a Bull.

Like the *Engliſh* proverb, If the sky fall, we ſhall have Larks.

They were wont alſo to ſacrifice a Bull to *Neptune*, and to all the Rivers, becauſe of that affinity which they held a Bull hath with all waters: and to *Apollo*, according to this *Virgilian* verſe, *Taurum Neptuno, Taurum tibi pulcher Apollo.* But unto *Jupiter* it was unaccuſtomed to be offered, perhaps becauſe he had often ſhewed himſelf in that likeneſs, to raviſh and deflour women. There be certain Proverbs of a Bull, which are not altogether impertinent in this place. Firſt, it is commonly ſaid, that he may bear a Bull that hath born a Calf; whereby is meant, that he may be more ſubject to filthineſs in age, which was ſo in youth. *Quartilla* was a woman of moſt vile reputation for uncleanneſs, becauſe ſhe ſaid, that when ſhe was little, ſhe lay with little ones like her ſelf, and when ſhe grew bigger, ſhe applyed her ſelf to the pleaſure of elder men, growing in filthineſs as ſhe had increaſed in years. Likewiſe they were wont to ſay of an abſurd or impoſſible thing; that if a Bull could reach his head over *Taygetus*, he might drink of the river *Eurota*: and the beginning of this proverb, was taken of an *Apothegme* of *Geradas*, when his Hoaſt upon a time did ask him what puniſhment the *Lacedemonians* had appointed for adulterers, he anſwered: there was no adulterers in *Lacedemon*, and therefore the puniſhment and queſtion wete frivolous. His Hoaſt replyed; But if there ſhould be an adulterer there, what puniſhment would they appoint for him? Marry (ſaid *Geradas*) he ſhould pay ſuch a Bull as would reach over *Taygetus* to drink of the water *Eurota*; whereat the hoſt laughed, demanding where ſuch a Bull could be found? then ſaid *Geradas*, and where can you finde an adulterer in *Lacedemon*? ſo putting off one abſurdity with another. And thus much of the natures and properties of a Bull in general. In the next place before this beaſt be turned into the Woods, we will deſcribe his medicinal vertues, and ſo let him looſe.

The medicines of Bulls.

The powder of a Bulls horn drunk in water ſtayeth a flux of blood, and the looſneſs of the belly. *Sextus* and *Æſculapius* ſay, that if a Bulls horn be burned in a place where Serpents abide, it driveth them away. The blood of Bulls mingled with Barley flower, driveth away hardneſs in the fleſh, and being dryed cureth Apoſthumes in every part of the body. It taketh away ſpots in the face, and killeth Serpents: It is commended warm againſt the Gout, eſpecially in Horſes. It is not good for to drink, becauſe it is eaſily congealed, except the little veins be taken out. It is accounted among the chiefeſt poyſons, and therefore it is thought by *Plutarch*, that *Hannibal* poyſoned himſelf by drinking Bulls blood, being thereunto perſwaded by his ſervant: for ſo dyed *Themiſtocles*, and *Pſammenitus* King of *Egypt*, taken by *Cambyſes*, was conſtrained to drink the blood of a Bull; whereupon immediately he gave up the ghoſt. For remedy hereof, it is good to beware of vomiting, becauſe the blood congealed in the ſtomach into lumps, ſtoppeth the throat; wherefore all thoſe things which diſſolve milk in the ſtomach, are alſo medicinable againſt the blood of Bulls. In theſe caſes let the party be firſt of all purged by Glyſter or otherwiſe, and then anoynt the ſtomach and belly with Barly meal and ſweet Water, laying it unto them like a plaiſter: likewiſe Lupines, Oxymel, and Nitre, are ſoveraign in this, as all Phyſitians know. The dry leaves of Neppe and Calamach is profitable againſt this Malady; ſo alſo are aſhes made of the lees of Wine burned.

The fat of a Bull is profitable to many things. Firſt therefore, it muſt be plucked out warm from the reins of a Bull and waſhed in a River or Brook of running Water, pulling out the skins and tunicles, then melt it in a new earthen pot, having caſt among it a little ſalt, then ſet it in fair cold Water, and when it beginneth to congeal, rub it up and down in the hands, wringing out the water, and letting it ſoke in again, untill it appear well waſhed; then boyl it in a pot with a little ſweet Wine, and being ſodden, let it ſtand all night: if in the morning it ſavour ſtrong, then pour in more Wine, ſeethe it again, untill that ſavour ceaſe, and ſo all the poyſon be removed: and beware of Salt in it, eſpecially if it be to be uſed in diſeaſes, whereunto Salt is an enemy, but being thus uſed, it looketh very white: after the ſame manner may be uſed the fat of Lions, Leopards, Panthers, Camels, Boars, and Horſes. *Dioſcorides.*

The fat kall about the guts melted in a frying pan, and anoynted upon the genitals and breaſt, helpeth the *Dyſenterie*. The marrow of a Bul beaten and drunk, cureth the pain in the ſmal of the belly: and *Raſis* ſaith, that if it be melted at a fire, and mingled with one fourth part of Myrrhe and Oyl of Bays, and the hands and feet be therewith anointed and rubbed, morning and evening; it helpeth the contractions of the Nerves and Sinews.

The fat of a Dormouſe, of a Hen, and the marrow of a Bull, melted together, and poured warm into the ears, eaſeth their pain very much: and if the liver of a Bull be broyled on a ſoft fire, and put into ones mouth that hath the Tooth-ach, the pain will go away ſo ſoon as ever the teeth touch it. The gall of a Bull is ſharper then an Oxes, and it is mingled with Hony for a Wound-plaiſter, and in all outward remedies againſt poyſon. It hath alſo a quality to gnaw the deadneſs or corruption out of Wounds, and with the juyce of Leeks and the Milk of women, it is applyed againſt the Swine-pox, and Fiſtulaes; but the gall alone rubbed upon the biting of an Ape, cureth that Malady. Likewiſe the Ulcers in the head, both of men, women, and children. And if the wool of an Hare be burned to aſhes, and mingled with oyl of Myrtles, Bulls gall, and beaten Alome, and ſo warmed and anoynted upon the head, it ſtayeth the falling away of the hair of head.

With the gall of a Bull, and the white of an Egge, they make an Eye-ſalve, and ſo anoynt therewith diſſolved in water four days together; but it is thought to be better with Hony and Balſam: and inſtilled with ſweet new Wine into the Ears, it helpeth away the pains of them eſpecially running-mattry Ears, with Womans or Goats milk. It being taken with Hony into the mouth, helpeth the clifts and ſores therein; and taken with the Water of new *Coloquintida* and given to a woman in travel, cauſeth an eaſie childe-birth *Galen* was wont to give of a Bulls gall the quantity of an Almond, with two ſpoonfuls of Wine, called (*Viuum Lymphatum*) to a woman that hath her childe dead within her body, which would preſently cauſe the dead Embryon to come forth. The genital of a red Bull, dryed to powder, and drunk of a woman, to the quantity of a golden Noble, it maketh her to loath all manner of copulation: but in men (as the later Phyſitians affirm) it cauſeth that deſire of luſt to increaſe. The dung of a Bull laid to warm, helpeth all hardneſs; and burnt to powder, helpeth the member that is burnt. The urine or ſtale of Buls with a little Nitre taketh away Scabs and Leproſie.

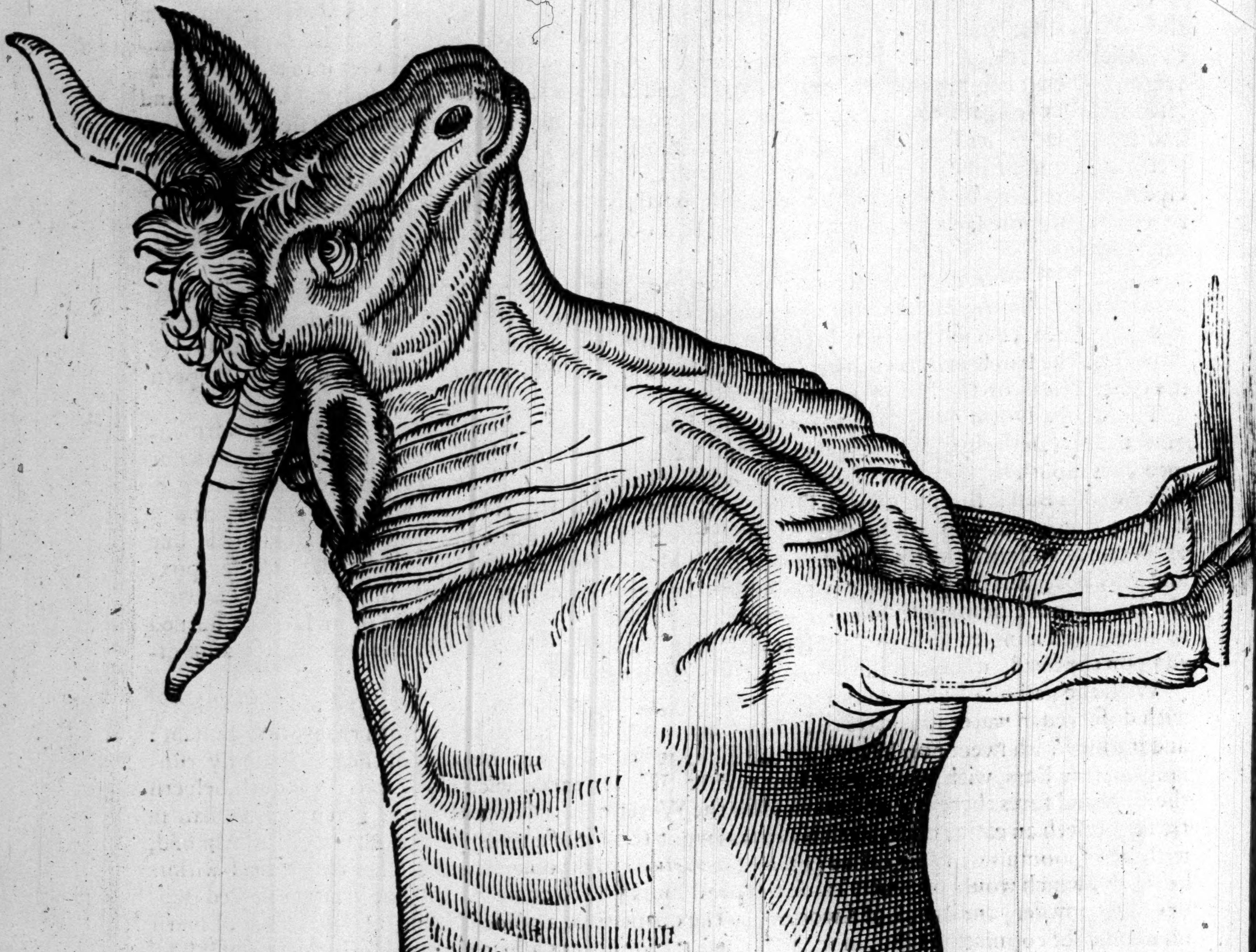
Of another *Beaſt* called *BUSELAPHUS*.

THere was (ſaith **D. Cay**) a cloven-footed beaſt brought out of the Deſerts of *Mauritania* into *England*, of the bigneſs of a Hinde, in form and countenance betwixt a Hinde and a Cow, and therefore for the reſemblance it beareth of both, I will call it *Buſelaphus*, or *Bovicervus*, or *Moſchelaphus*, or a Cow-Hart: having a long and thin head and ear, a lean and ſlender leg and ſhin, ſo that it may ſeem to be made for chaſe and celerity. His tail not much longer then a foot, but the form thereof very like a Cows, and the length like a Harts; as if nature ſeemed to doubt whether it ſhould encline to a Cow or a Hart: his upper parts were yellowiſh and ſmooth, his neither parts black and rough; the hair of his body betwixt yellow and red, falling cloſe to the skin, but in his fore-head ſtanding up like a Star; and ſo alſo about the horns which were black, and at the top ſmooth, but downward rough with wrinkles meeting on the contrary part, and on the neerer ſide ſpreading from one another, twice or thrice their quantity. Theſe horns are in length one foot and a hand-breadth, but three hands-breadth thick at the root, and their diſtance at the root was not above one fingers breadth, ſo ariſing to their middle, and a little beyond where they differ or grow aſunder three hands breadth and a half; then yeeld they together again a little, and ſo with another crook depart aſunder the ſecond time, yet ſo, as the tops of the horns do not ſtand aſunder above two hands-breadth, three fingers and a half. From the crown of the head to the noſtrils, there goeth a black ſtrake which is one foot, two palms and one finger long, in breadth above the eyes where it is broadeſt, it is ſeven fingers, in thickneſs one foot and three palms, it hath eight teeth, and wanteth the uppermoſt like a Cow, and yet cheweth the Cud, it hath two udders under the belly like a Heifer that never had a Calf, it is a gentle and pleaſant beaſt, apt to play and ſport, being not only ſwift to run, but light and active to leap: It will eat any thing, either bread, broth, ſalted or powdred beef, graſs or herbs, and the uſe hereof being alive is for hunting, and being dead the fleſh is ſweet and pleaſant for meat.

The deſcription of this ſtrange beaſt. The name. The ſeveral parts.

Pauſanias.

Of the OXE and COW.



WE are now to deſcribe thoſe beaſts which are leſs forein and ſtrange, and more commonly known to all Nations, then any other four-footed beaſt: for howſoever Bugils, Buffes, Lyons, Bears, Tigers, Beavers, Porcupines and ſuch other, are not alway found in every Nation, yet for the moſt part are Oxen, Kine, Buls and Horſes, by the Providence of Almighty God, diſſeminated in all the habitable places of the world: and to ſpeak the truth, Oxen and Horſes were the firſt riches, and ſuch things wherein our Elders gat the firſt property, long before houſes and lands: with them they rewarded men of higheſt deſert, as *Melampus*, who opened an Oracle to *Neleus* that ſought out the loſt Oxen of *Iphiclus*. And *Erix* King of *Sicily*, ſo much loved Oxen, that *Hercules* recovered from *Geryon*, that when he was to contend with *Hercules* about theſe, he rather yeelded to depart from his Kingdom then, from his Cattel: and *Iulius Pollux* affirmeth, that there was an ancient coin of mony, which was ſtamped with the figure of an Oxe, and therefore the Cryer in every publick ſpectacle made proclamation, that he which deſerved well, ſhould be rewarded with an Oxe, (meaning a piece of mony having that impreſs upon it: which was a piece of Gold compared in value to an *Engliſh* Roſe-noble) and in my opinion the firſt name of mony among the *Latines* is derived from Cattel, for I cannot invent any more probable etymologie of *Pecunia*, then from *Pecus*, ſignifying all manner of Cattel: howſoever it is related by ſome Writers, that on the one ſide of their coin was the Kings face, and on the other an Oxes picture; and that *Servius* was the firſt that ever figured money with Sheep or Oxen. *Miron* the great painter of *Eleutheris*, and diſciple of *Agelas*, made an Heifer or Cow of Braſs, which all Poets of *Greece* have celebrated in ſundry Epigrams, becauſe a Calf came unto it to ſuck it, being deceived with the proportion, and *Auſonius* alſo added this following unto the ſaid Calf and Cow, ſaying:

Pliny.

Ubera quid pulſas frigentia matris abenæ,
O vitula? & ſuccum lactis ab ære petis?

Whereunto the brazen Cow is cauſed to make this anſwer following;

Hunc quoque præſtarem, ſi me pro parte paraſſet,
Exteriore Miron, interiore Deus.

Whereby he derideth their vain labours, which endeavour to ſatisfie themſelves upon mens deviſes, which are cold and comfortleſs without the bleſſing of Almighty God. To begin therefore with theſe beaſts, it muſt be firſt of all remembred, that the name *Bos*, or an Oxe as we ſay in *Engliſh*, is the moſt vulgar and ordinary name for Bugils, Bulls, Cows, Buffes, and all great cloven-footed horned beaſts; although in proper ſpeech, it ſignifieth a beaſt gelded or libbed of his ſtones: and *Boas* ſignifieth a huge great Serpent whereof there were one found in *Italy*, that had ſwallowed a childe whole without breaking one of his bones, obſerving alſo in Oxen the diſtinction of years or age: which giveth them ſeveral names, for in their young age they are called Calves, in their ſecond age Steeres, in their third Oxen, and the *Latines* adde alſo a fourth, which they call *Vetuli*, old Oxen. Theſe are alſo diſtinguiſhed in ſex, the Male Calf is *Vitulus*, the Female *Vitula*; likewiſe *Iuvencus*, a Steer, and *Iuvenca*, an Heifer, *Bos*, an Oxe, and *Vacca*, a Cow; *Taurus*, a Bull; *Taura*, a barren Cow; and *Horda*, a bearing and fruitful Cow: of whom the *Romans* obſerved certain feſtival days called *Hordicalia*, wherein they ſacrificed thoſe Cattel. The *Latines* have alſo *Vaccula* and *Bucula* for a little Cow:

Valla.
Of the nam
Bos.

Vaccula non nunquam ſecreta cubilia captans, Virg.
And again,
——— *Aut Bucula Cœlum.*

And *Bucalus* or *Bos novellus* for a little Oxe. *Schor* in the *Hebrew* ſignifieth a Bull or Oxe, *Bakar*, Herds, or a Cow. *Thor* in the *Chaldee* hath the ſame ſignification with *Schor*, and among the later Writers you may finde *Tora* a maſculine, and *Torata* a feminine, for a Bull and a Cow, accuſtomed to be handled for labour. The *Græcians* call them *Bous* and *Boes*, the *Arabians*, *Bakar*: and it is to be noted, that the holy Scriptures diſtinguiſh betwixt *Tzon*, ſignifying flocks of Sheep and Goats, and *Bakar* for Herds of Cattel and Neat: and *Meria* is taken for Bugils, or the greateſt Oxen, or rather for fatted Oxen, for the verb *Marab* ſignifieth to feed fat. *Egela* is interpreted Jer. 46. for a young Cow; and the *Perſians*, *Goſalai*: It is very probable that the *Latine*, *Vacca*, is derived from the *Hebrew*, *Bakar*, as the *Saracen* word, *Baccara*; ſo in *Hebrew*, *Para* is a Cow, and *Par*, a Steer, and *Ben Bakar*, the ſon of an Oxe, or Calf: and whereas the *Hebrews* take *Parim*, for Oxen in general, the *Chaldees* tranſlate it *Tore*; the *Arabs*, *Bakera*; the *Perſians*, *Nadgacab*, or *Madagaucha*; the *Italians*, call it *Bue*; the *French*, *Beuf*; the *Spaniards*, *Buey*; the *Germans*, *Ochs*, and *Rind*; the *Illyrians*, *Wull*. The *Italions* call a Cow *Vacca* at this day; the *Græcians*, *Bubalis*, and *Damalis*, or *Damalai*; (for a Cow which never was covered with a Bull, or tamed with a yoke) and *Agelada*. The *French*, *Vache*; the *Spaniard*, *Vaca*; the *Germans*, *Ku*, or *Kube*; and the Citizens of *Altina*, *Ceva*: from which the *Engliſh* word Cow ſeemeth to be derived; the *Latine* word is, a young Heifer, which hath ceaſed to be a Calf.

Of the nam
of a Cow.

There are Oxen in moſt part of the world, which differ in quantity, nature, and manner, one from another, and therefore do require a ſeveral Tractate. And firſt, their Oxen of *Italy* are moſt famous, for as much as ſome learned men have affirmed, that the name *Italia*, was firſt of all derived of the *Greek* word *Italous*, ſignifying Oxen; becauſe of the abundance bred and nouriſhed in thoſe parts, and the great account the ancient *Romans* made hereof, appeareth by notable example of puniſhment, who baniſhed a certain Countrey man for killing an Oxe in his rage, and denying that he eat thereof, as if he had killed a man: likewiſe in *Italy* their Oxen are not all

The diverſity
of Oxen in al
Countreys.
Varro.

Oxen of *Ital*

alike, for they of *Campania* are for the moſt part white and ſlender, yet able to manure the Countrey wherein they are bred; they of *Umbria*, are of great bodies, yet white and red coloured. In *Hetruria* and *Latium*, they are very compact and well ſet or made, ſtrong for labour, but the moſt ſtrong are thoſe of *Apennine*, although they appear not to the eye very beautiful.

Ariſtotle. *Oppianus.* *Aonia.* *Ælianus.* *Leo Afric.*

The *Egyptians* which dwell about *Nilus* have Oxen as white as ſnow, and of exceeding high and great ſtature, (greater then the Oxen of *Grecia*) yet ſo meek and gentle, that they are eaſily ruled and governed by men. The *Aonian* Oxen are of divers colours, intermingled one within another, having a whole round hoof like a horſe, and but one horn growing out of the middle of their forehead.

African oxen.

The domeſtical or tame Oxen of *Africk* are ſo ſmall, that one would take them for Calves of two years old; the *Africans* (ſaith *Strabo*) which dwell betwixt *Getulia* and our Coaſt or Countrey, have Oxen and Horſes which have longer lips and hoofs then other, and by the *Grecians* are termed *Macrokeilateroi*.

Armenian oxen. *Ælianus.* *Varinus.* *Bœotian* Oxen. *Carician* oxen.

The *Armenian* Oxen have two horns, but winding and crooking to and fro like Ivie which cleaveth to Oaks, which are of ſuch exceeding hardneſs that they will blunt any ſword that is ſtroke upon them, without receiving any impreſſion or cut thereby. Some are of opinion, that the only excellent breed of Cattel is in *Bœotia*, neer the City *Tanagra* (called once *Pœmandra*) by reaſon of their famous Cattel, the which Oxen are called *Coprophaga*, by reaſon that they will eat the dung of man; ſo alſo do the Oxen of *Cyprus*, to eaſe the pains of their ſmall guts. The *Caricians* in a part of *Aſia* are not pleaſant to behold, having ſhaggie hair, and bunches on either ſhoulders, reaching or ſwelling to their necks; but thoſe which are either white, or black, are refuſed for labour.

Epirus. *Pliny.* *Ariſtotle.* *Theodoret.*

Epirus yeeldeth alſo very great and large Oxen, which the inhabitants call *Pyrrici*, becauſe that their firſt ſtock or ſeminary were kept by King *Pyrrhus*: howſoever other ſay, that they have their name of their fiery flaming colour: they are alſo called *Larani* of a Village *Larinum*, or of *Larinus*, a chief Neat-herd: of whom *Atheneus* maketh mention, who received this great breed of Cattel of *Hercules* when he returned from the ſlaughter of *Gerion*: who reigned about *Ambracia* and *Amphilochi*, where through the fatneſs of the earth and goodneſs of the Paſture they grow to ſo great a ſtature. Other call them *Ceſtrini*, I know not for what cauſe, yet it may be probable that they are called *Larini*, by reaſon of their broad Noſtrils, for *Rines* in *Greek* ſignifieth Noſtrils: but the true cauſe of their great bone and ſtature is, becauſe that neither ſex were ſuffered to couple one with another, untill they were four years old at the leaſt, and therefore they were called *Atauri*, and *Setauri*, and they were the proper goods of the King: neither could they live in any other place but in *Epirus*, by reaſon that the whole Countrey is full of ſweet and deep paſtures.

Eubœa. *Ælianus.* *Hiſpaniola* Oxen. *Peter Martyr.*

All the Oxen in *Eubœa* are white at the time of their Calving, and for this cauſe the Poets call that Countrey *Argoboeon*. If that Oxen or Swine be tranſported or brought into *Hiſpaniola*, they grow ſo great, that the Oxen have been taken for Elephants, and their Swine for Mules, but I take this relation to be hyperbolical.

Raſis. *Indian* Oxen. *Cteſias.* *Solinus.* *Pliny.* *Ælianus.*

There are Oxen in *India* which will eat fleſh like Wolves, and have but one horn, and whole hoofs; ſome alſo have three horns; there be other as high as Camels, and their horns four foot broad. There was a horn brought out of India to *Ptolemy* the ſecond, which received three *Amphoraes* of water, amounting the leaſt to thirty *Engliſh* gallons of wine meaſure; whereby it may be conjectured of how great quantity is the beaſt that bare it. The *Indians*, both Kings and people, make no ſmall reckoning of theſe beaſts, (I mean their vulgar Oxen) for they are moſt ſwift in courſe, and will run a race as faſt as any horſe, ſo that in their courſe you cannot know an Ox from a Horſe, waging both gold and ſilver upon their heads; and the Kings themſelves are ſo much delighted with this paſtime, that they follow in their Wagons, and will with their own mouths and hands provoke the beaſts to run more ſpeedily: and herein the Ox exceedeth a Horſe, becauſe he will not accompliſh his race with ſufficient celerity, except his rider draw bloud from his ſides with the ſpur, bnt the Oxes rider need not to lay any hands or pricks at all upon him, his only ambitious nature of overcoming (carrying him more ſwiftly then all the rods or ſpurs of the world could prevail on him). And of this game, the loweſt of the people alſo are very greedy, laying many wagers, making many matches, and adventuring much time and price to ſee their event.

Among the *Indians* there are alſo other Oxen which are not much greater then great Goats, who likewiſe in their yoaks are accuſtomed to run many races, which they performe with as great ſpeed as a *Getican* Horſe; and all theſe Oxen muſt be underſtood to be wilde Oxen.

Ælianus.

Leuctrian Oxen. *Garamantæ.* *Solinus.* *Herodotus.*

There be Oxen in *Leuctria* (which *Ariſtotle* affirmeth) have their ears and horns growing both together forth of one ſtem. The Oxen of the *Garamants*, and all other Neat among them, feed with their necks doubled backward, for by reaſon of their long and hanging horns, they cannot eat their meat, holding their heads directly ſtraight. The ſelf ſame is reported of the beaſts of *Troglodytæ*; in other things they differ not from other Oxen, ſave only in the hardneſs of their skin, and theſe Oxen are called *Opiſthonomi*.

Bangala. *Ariſtotle.*

In the Province of *Bangala*, are Oxen (ſaith *Paulus Venetus*) which equall the Elephant in height. The Oxen in *Myſia* have no horns, which other affirm alſo of the *Scythians*, whereof they aſſign this reaſon, becauſe the univerſal bone of the skull hath no *Commiſſure* or joint opened, and cannot receive any humour flowing unto it, by reaſon of the hardneſs reſiſting, and the veins belonging to this bone are weaker and ſmaller then in other; for which alſo they are more unfit to convey nouriſhment to the place: and ſo, the neck of theſe beaſts muſt needs be more dry and leſſe ſtrong, becauſe the veins are very little. The Oxen have bunches growing on their backes like Cameſs, and upon them do they bear their burdens, being taught by the diſcipline of men, to bend on their knee to receive their load.

Among the *Nomades* (which winter their Cattel about the Mariſhes of *Mæotis*) there are alſo certain Cattel without horns; whereof ſome are ſo naturally, the other have their horns ſawed off, as ſoon as they grow forth, becauſe of all the parts of their body, they only can endure no cold.

Ælianus.
Nomadian Oxen.

There be Oxen in *Phrygia* and *Erythrea* which are are of a flaming red colour, of a very high and winding neck, their horns are not like any other in the world, for they are moved with their ears turning in a flexible manner ſometime one way and ſometime another.

Ælianus.
Oppianus.
Phrygian and *Erythrean* Oxen.

The *Syrian* Oxen called *Pelæ* are of great ſtrength, having a broad forehead, ſtrong horns, and fearful or couragious aſpect, being neither too fat or too lean of their bodies; and they are uſed both for war and alſo for running.

Ælianus.
Oxen of *Syria.*

The Oxen of the *Belgian* Provinces, eſpecially *Friſeland* and *Holland*, are alſo of very great ſtature, for it hath been found by good experience, that one of them hath weighed ſixteen hundred pounds *Troy* weight: and when the Earl of *Hoochſtate* was at *Machlin* in *Friſeland*, there was preſented unto him a great Ox, which being killed, weighed above two thouſand five hundred twenty and eight pound. The which thing being ſo ſtrange as the like had not been beforetime obſerved, to the intent that ſucceeding ages might not miſtruſt ſuch a memorable report, the ſaid Earl cauſed the full picture of the ſaid Ox, to be ſet up in his Palace, with an inſcription of the day and year when this Ox was delivered and killed.

Belgian Oxen.
Guicciardine.

Of COWES.

HAving thus noted briefly the Countries wherein Oxen are bred and nouriſhed, with their ſeveral forms: it muſt be alſo obſerved, that Kine or Cowes which are the female of this kind, are likewiſe found in all the places aforeſaid with correſpondent and ſemblable quantities, qualities, members, parts, and other accidents to ſuch creatures appertaining; excepted alwayes thoſe things which belong to their ſex, which principally concern their milk. And firſt of all the Kine of moſt plentiful Milk in all *Italy*, are about *Altinas* a City of the *Venetians*, neer *Aquileia*, which Kine are of the ſmalleſt body, and yet the greateſt labourers, who are not yoaked or coupled together by their necks as in other Countries, but only by their heads.

Milk of Kine in *Italy.*

The Cowes of *Arabia* have the moſt beautiful horns, by reaſon of aboundance of humours which flow to them, feeding them continually with ſuch generous liquor as naturally doth encreaſe them.

Arabian Cowes.

The *Pyrrhean* Kie are not admitted to the Bull till they be four year old at the leaſt, which thing cauſed them to grow to a very high and tall ſtature: whereof there were ever four hundred kept for the Kings ſtore.

Pyrrhean Cowes.

Theſe Kie do give at one time ſeaven or eight gallons of Milk, of Wine meaſure, and they are ſo tall, that the perſon which milketh them muſt ſtand upright, or elſe ſtoop very little: neither ought this ſeem incredible, for it is evident that the Cowes of the *Phœnicians* were ſo high, that a very tall man could not milk them except he ſtood upon a footſtool.

Phenician Cowes.
Ælianus.

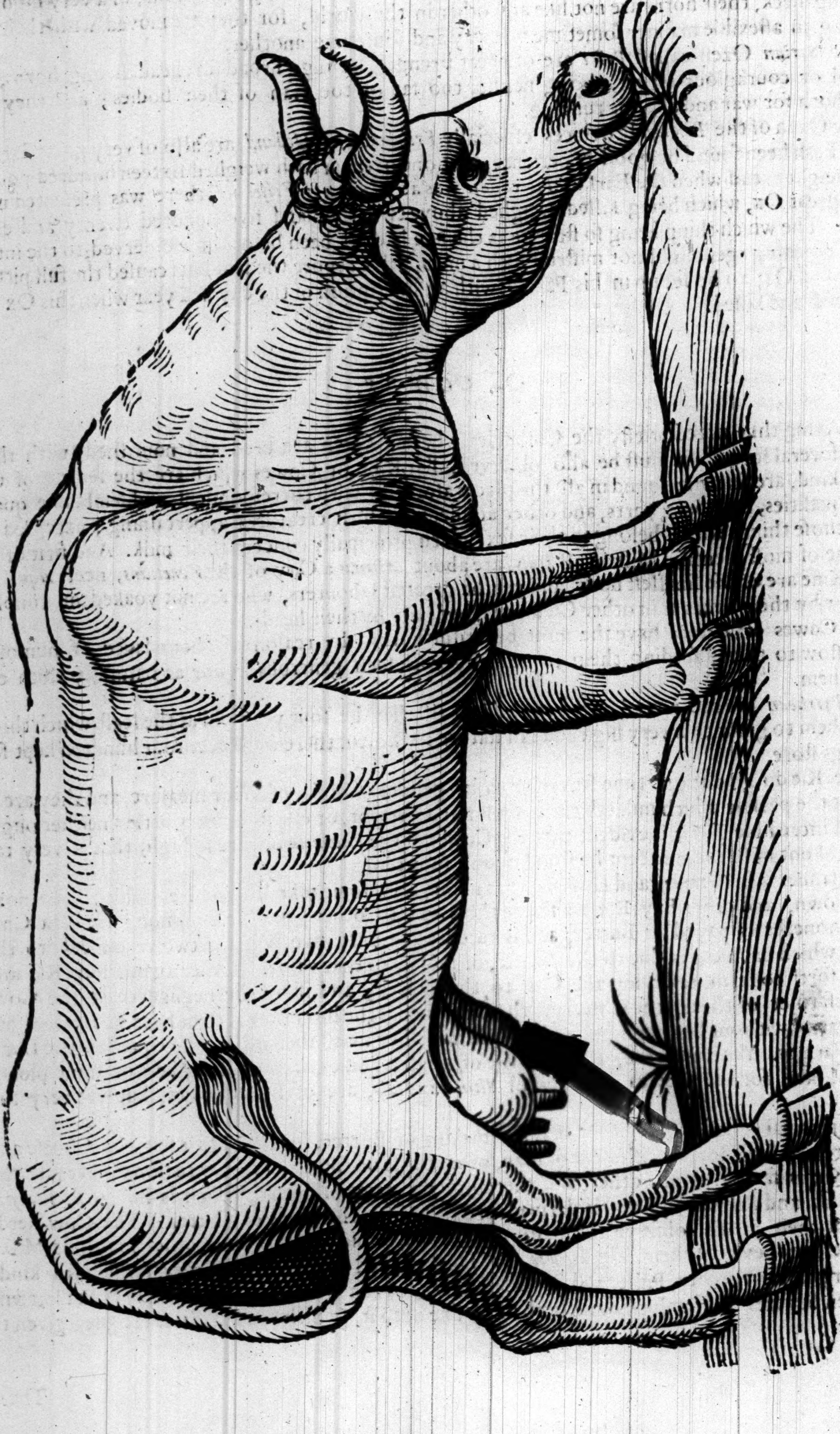
The manner is in *Germany* and *Helvetia*, that about *April* ſome take Kie to hire, which have none of their own, and other buy Kie to farme them out to other; and the common price of a Cow for ſix moneths is payed in Butter, and is rated at ſeventy five pounds, twelve ounces to the pound; which payment is due to the owner, or money to that value. Other again, buy Kie and let them forth to farm, reſerving the Calf to themſelves; and if by the negligence of the Cowherd or farmer of them, the Cow caſt the Calf, then is the hirer bound to anſwer the value, but if it miſcarry without his negligence (as oftentimes they may) then is the loſſe equall to the Locatour or Farmer. Yet it is noted, that the Kie of greateſt bodies, are not alway beſt or moſt plentifull in Milke; for the Cowes or *Cave* of *Altinas* in *Italy*, are of little bodies, but yet very full of Milk.

Hiring of Cowes in *Germany* and *Helvetia.*

The principal benefit of Cowes Milk is for making of Butter, for the Milk it ſelf, the Cheeſe and Whay, are not ſo fit for nouriſhment of man, as are thoſe of Sheep; and the reaſon is, becauſe the Milk of Kie is fatteſt of all other, and therefore the name of Butter, which is in *Greek*, *Boutyros* and *Boutyron*, and *Butyrum* in *Latin*, is derived properly from this kinde of Cattel. The Cow-herds do alſo for their profit, obſerve the paſture and food, which doth above other multiplie Milk; and therefore they give their Kie *Trifolie*, or Three-leaved graſſe; and *Medica*, (which is a kinde of Claver graſſe) Vetches, Pulſe, and Beans, for Beans have a great virtue to multiply Milk: likewiſe I have ſeen bundles of Hemlock, or an herb much like unto it, (which we call Harts tongue) given to milch Kie.

The uſe of Cow milk.
Pet. Creſcent.
Ariſtotle.
Marc. Virg.
Food for Cowes giving Milk.

There is an herb much like Crow-foot, called of the *Germans*, *Butterbloumen*, and in *Engliſh*, Butter-flower, which is uſed to colour Butter, for thereby is the whiteneſs thereof taken away: they will not eat Wal-wort or night-ſhade (commonly called Deaths herb) but if they eat herbs whereupon falleth an Hony-dew, then will their Milk be wonderful ſweet and plentiful: there is no food ſo good for Cowes, as that which is green, if the Countrey will afford it; eſpecially Kie love the wet and watery places, although the Butter coming from the milk of ſuch beaſts, is not ſo wholeſome as that which is made of ſuch as are feed in dryer Paſtures. The like care is had of their drink, *Palladius.* for although they love the coldeſt and cleareſt waters, yet about their time of Calving it is much for better them to have warmer waters, and therefore the Lakes which are heated and made to ſome by the rain, are moſt wholeſome to them, and do greatly help to eaſe their burden and pains in that buſineſs.



Pauſanias reporteth a wonder in nature, of the Rivers *Milicbus* and *Charadrus*, running through the City *Patræ*, that all the Kie which drink of them in the Spring time, do for the moſt part bring forth males, wherefore their herdmen avoid thoſe places at that time. Kie for the moſt part before their Calving, are dry and without milk (eſpecially about *Torona*), They are alſo purged of their menſtrua in greater meaſure, then either Goats or Sheep, which eſpecially come from them a little before or after they have been with the Bull; howſoever *Ariſtotle* ſaith, that they come from them after they have been five moneths with Calf, and are diſcerned by their urine; for the urine of a Cow is the thinneſt of all other.

Theſe beaſts are very luſtful, and do moſt eagerly deſire the company of their male, which if they have not within the ſpace of three hours after they mourn for it, their luſt aſſwageth till another time. In a Village of *Egypt* called *Schuſſa* (under the government of the *Hermopolites*) they worſhip *Venus* under the title *Urania* in the ſhape of a Cow, perſwading themſelves that there is great affinity betwixt the Goddeſſe and this beaſt; for by her mournful voice ſhe giveth notice of her love, who receiveth the token many times a mile or two off, and ſo preſently runneth to accompliſh the luſt of nature: and for this cauſe do the *Egyptians* picture *Iſis* with a Cows horns, and likewiſe a Bull to ſignifie hearing. The ſignes of their Bulling (as it is termed) are their cries, and diſorderly forſaking their fellows, and reſiſting the government of their keeper. Likewiſe, their ſecret hangeth forth more then at other times, and they will leap upon their fellows as if they were males: beſides after the manner of Mares, they oftner make water then at other times.

Ælianus.

Signes of a Cowes deſire to the Bull.

The moſt cunning heardmen have means to provoke them to deſire the Bull, if they be ſlack, firſt of all they withdraw from them ſome part of their meat (if they be fat) for that will make them fitter to conceive; then take they the genitals or ſtones of a Bull, and hold it to their noſe, by ſmelling whereof they are provoked to deſire copulation; and if that prevail not, then take they the tendreſt part of Shrimps, which is their fiſh, and beat them in water till they be an ointment, and therewith anoint the breaſts of the Cow, after they have been well waſhed, untill it work upon her. And ſome affirm, that the tail of an Eel put into her hath the ſame virtue; other attribute much force to the wilde willow, to procure luſt and conception.

Secrets to provoke luſt in Cattell.

Collumella.

They are a great while in copulation, and ſome have gheſſed by certain ſignes at the time of copulation, whether the Calf prove male or female; for ſay they, if the Bull leap down on the right ſide of the Cow, it will be a male, if on the left, it will be a ſemale: which conjecture is no longer true, then when the Cow admitteth but one Bull, and conceiveth at the firſt conjunction, for which cauſe the *Egyptians* decipher a woman bringing forth a maiden childe, by a Bull, looking to the left hand, and likewiſe bearing a man childe, by a Bull, looking to the right hand.

Signes at the copulation to know whether the Calf will be Male or Female.

They are not to be admitted to copulation before they be two year old at the leaſt, or if it may be four; yet it hath been ſeen, that a Heiſer of a year old hath conceived, and that another of four moneths old hath likewiſe deſired the Bull; but this was taken for a monſter, and the other never thrived.

One Bull is ſufficient for fifteen Kie, although *Varro* ſaith, that he had but two Buls for threeſcore and ten Kie; and one of them was two year old, the other one. The beſt time for their copulation is about the time of the Daulphins appearance, and ſo continueth for two or three and fourty daies, which is about *June* and *July*, for thoſe which conceive at that time, will bring forth their young ones in a moſt temperate time of the year; and it hath been obſerved, that an Ox immediately after his gelding, before he had forgotten his former deſire and inclination, his ſeed not dryed up, hath filled a Cow, and ſhe proved with Calf.

They go with Calf ten moneths, except eighteen or twenty daies; but thoſe which are Calved before that time, cannot live; and a Cow may bear every year (if the Countrey wherein ſhe liveth be full of graſſe, and the Calf taken away from her at fifteen days old).

Ariſtotle.

And if a man deſire that the Calf ſhould be a male, then let him tie the right ſtone of the Bull at the time of copulation; and for a female bind the left. Others work this by natural obſervation; for when they would have a male, they let their Cattel couple when the North wind bloweth; and when a female, they put them together when the air is Southerly. They live not above fifteen years, and thereof ten times they may ingender. The beſt time to Calve in, is *April*, becauſe then the Spring bringeth on graſſe, both for themſelves, and to increaſe milk for the young ones.

Means to cauſe the Calf at the time of copulation to be either male or female.

The length of their age.

They bear not but in their right ſide, although they have twins in their belly, which happeneth very ſeldom, and the beaſt immediately after her delivery, muſt be nouriſhed with ſome good meat, for except ſhe be well fed, ſhe will forſake her young to provide for her ſelf: therefore it is requiſite to give her Vetches, Millet-ſeed, and milk mingled with water, and ſcorched Corne; and unto the Calves themſelves, dryed Millet in milk, in the manner of a maſh: and the Kie muſt alſo be kept up in ſtables, ſo as they may not touch their meat at the going forth, for they are quickly brought to forſake and loath that which is continually before them: and it is obſerved that when Kie in the Summer time do in greater number above cuſtom go to the Bull then at other times, it betokeneth and foreſheweth a wet and rainy winter, for it cannot be (ſaith *Albertus*) that a beaſt ſo dry as is a Cow, can be increaſed in moiſture, which ſtirreth up the deſire of procreation, except alſo there be a mutation in the air unto abundance of moiſture. And to conclude this diſcourſe of a Cow, in ancient time they were wont to call light women Heifers, Harlots, and Kine, by reaſon of

A ſecret in copulation.

of two famous harlots of *Athens*, *Cuina* and *Salanacbba*, and from this came the fiction of *Io*, whoſe fable is at large proſecuted by *Ovid*, how ſhe being the daughter of *Inachus*, was in a darkneſs brought upon her by *Jupiter*, by him raviſhed, which miſt being eſpied by *Juno*, ſhe deſcended to the earth, and *Jupiter* fearing his wives jealouſie turned the ſaid *Io* into a Heifer, from which ſhape ſhe was afterwards delivered and maried to *Oſiris* the King of *Egypt*, and after her death was worſhipped by the *Egyptians* for a god, and called *Iſis*, unto whom they ſacrificed Geeſe which were called *Sacra Iſiaca*.

Of the choiſe of Kie.

In the choiſe of Kie, you muſt obſerve this direction, you muſt buy them in the moneth of *March*, let them be young, not paſt their firſt or ſecond Calf, their colour black or red, ſeldom brown or white, bright coloured, ſpecially red, brown legs, blackiſh horns ſmooth and beautiful, high foreheads, great eyes and black, hairy and griſly ears, flat Noſtrils like an Apes, but open and wide, their back bones bending ſomewhat backward, black lips, long and thick necks, moſt broad fair creſts deſcending from the neck, well ribbed, a great belly, the back and ſhoulders very broad, the buttockes broad, with a long tail hanging down to their heels, and their neather part in many places criſped and curled, well ſet and compacted legs rough and ſhort, ſtraight knees, and their bunches hanging over; their ſmall feet, not broad but round, ſtanding in good diſtance one from other, not growing crooked or ſplay-footed, and their hoofs ſmooth and like one another every way. Finally, it were a profitable thing to proſecute natures perfection in every one of their ſeveral parts, but I ſpare to ſpeak any more of the Females, and returning again to the ſtory of Oxen from which we have digreſſed, leaving the readers who deſire to hear more of this diſcourſe of Kie to other Authors, who purpoſely deſcribe every part more particularly.

The deſcription of Oxen in common.

Time beſt to provide Oxen.

To begin therefore with their deſcription, becauſe among folded beaſts they are of moſt dignity and worth, eſpecially in *Italy*, where the bounds of their beſt priviledged and flouriſhing Cities, were firſt of all declared and layed out, by the lowing together of an Ox and a Cow in one yoak. *Mago Carthaginenſis* teacheth, that the time to provide or buy oxen, is beſt in the time of *March*, becauſe then in their lean bodies, they which ſell them cannot cover their faults ſo well, as if they were fatter, and alſo if they ſhould be unruly and ſtubborn, they may be the more eaſily tamed, before their fleſh increaſe their ſtrength.

Outward marks of good Oxen.

Their ſeveral parts.

The reaſons why ſome oxen are polled.

Ælianus.

Ariſtotle.

Pliny.

Their notes or markes muſt be theſe, let them be young, having ſquare and great lims, a ſound body, thick and ſhort, having his muſcles ſtanding up red and round, and all his body ſmooth, his horns black, ſtrong and large, without crooking or winding, after the faſhion of a half moon, great and rough ears, their eyes and lips black, broad Noſtrils and flat upward, a long thick and ſoft neck, his creſt deſcending down to the knee, a great breaſt, large ſhoulders, big belly, long ſtraight ſides, broad loins, a ſtraight back deſcending a little, and a round pair of buttocks, ſtraight, ſound and ſinewy, ſhort legs, good knees, great hoofs, and long tails rough and griſly. And it is to be noted, that the Oxen of a mans own Countrey breed, are better and to be preferred before ſtrangers, becauſe he is already naturally fitted to the air, food, water, and temper of the ſoil: for it is not good to bring them from the Mountains to the Vallies, becauſe then they will grow laſie and fat, and ſo into diſeaſes; neither from the Vallies to the Mountains, becauſe they will quickly grow out of heart through want of their firſt deep and fat paſture; and above all, have regard to match them equally in yoak, ſo as one may not overbear the other. Oxen looſe their teeth at two or three year old, but not all as a Horſe doth, their nerves are harder, but not ſo hard as a Buls; their fleſh is dry and melancholick, their horns are greater and larger then are a Buls, for the ſame reaſon that Eunuchs and gelded perſons can never be bald; for copulation weakneth the brain, only a Bull hath a ſtronger forehead then an Ox, becauſe the humour that ſhould grow forth into horns, is hardned under the bone: and the horns of Kie which are alſo bigger then a Buls; may through heat be made flexible with wax or water, and bend every way: and if when they are thus made ſoft, you do ſlit or cut them into four, that is, every horn in two, they will ſo grow afterward, as if every beaſt had four horns, and ſometime through the thickneſs of their ſcull, cloſing up the part where the horn ſhould grow, and the ſmalneſs of their veins in that place to feed the horns, there come no horns at all, but remain polled; And it is reported that they have a little ſtone in their head, which in the fear of death they breath out. Their teeth do all touch one another, and are changed twice, they chew the cud like ſheep, wanting a row of their upper teeth, that is four of them, their eyes are black and broad, and their heart full of ſinews, yet without any bony ſubſtance, although *Pliny* affirmeth that ſometimes in the hearts of Oxen and Horſes are found bones.

The parts of a Cow different from Oxen.

Galen.

Their creſt called ***Palea*** cometh of ***Pilus*** their hair, and it is nothing elſe but long ſtrakes in their hair, whereby the generoſity and ſtomach of the beaſt is apparent. A Cow hath two udders under her loins, with four ſpeans, like a Goat and a Sheep, becauſe the concoction and juice of their meat may better deſcend to the lower parts then to the upper; their navell is filled with many veins, their hair ſhort and ſoft, their tail long, with harder hair then in the other parts of the body; their milt is long and not round, their reins are like the reins of a Sea-calf, and by reaſon of their dry bodies they grow very fat, and this fat will not eaſily be diſſolved, but their manner of feeding maintaineth their ſtrength, for they which eat much are ſlow in the chewing, and ſpeedy in the concoction, for they do better preſerve their fat which eat ſlowly, then thoſe that eat haſtily and with more greedineſs.

It

The manner how Oxen feed fat.
Herodotus.
Paul. Venet.

It hath been already ſhewed, that ſome Oxen will eat fleſh, and tear wilde beaſts in pieces, the people of *Praſias* give to their yoaked or working Oxen fiſh, and alſo in the Province of *Aden*, and where their Horſes, Sheep, and Oxen, eat dryed fiſh, by reaſon that the abundance of heat doth dry up their paſture: neither is any thing ſo plentiful among them as fiſh: the like is reported of the people *Horotæ*, and *Gedruſii*, and of *Moſynum* a City of *Thracia*, and in *Friſeland*: in the Province of *Narbon*, there is an herb growing in waters, which is ſo much deſired of their Cattel, that they will thruſt their heads into the water above their ears, to bite that to the roots: and the Oxen of the Northern ocean Iſlands of *Germany* do grow ſo fat, that they are indangered to die thereby.

The moſt common food for Oxen, is the ſame that is already ſpecified in the former diſcourſe of Kie; namely, Three-leaved graſſe, Claver graſſe, all green herbs, Hay, Beans, Vetches, Chaffe, and in ſome places Barley and Straw. There is alſo a monethly diet or food given to Oxen, for in *January* and *February*, they give them Vetches, and Lupines, bruiſed in water among Chaffe or Peaſe, ſo bruiſed and mingled, and where is want of ſuch pulſe, they may give them preſſings of Grapes dryed and cleanſed, which is not turned into wine, and mingle them with chaffe for the Cattel to eat, but the Grapes themſelves are much better before the preſſing, with their ſmall twigs or leaves, becauſe they are both meat and drink, and will fat an Ox very ſpeedily.

The like may be added of boughs, of Laurel, Elme, and other leaves, and alſo Nuts and Acornes, but if they be not wearyed and fed with Acornes till they loath them, they will fall into ſcabs. In *March* and *April*, give them Hay, and from *April* unto *June* give them Graſſe, and ſuch green meat as may be found abroad; Afterward all the Summer and Autumn, they may be ſatisfied with the leaves of Elme, Bay, Holm, and eſpecially that kind of Oake which is without prickles, and therefore they cannot abide Juniper. In *November* and *December*, while the ſeed time laſteth, they muſt have as much given them as they can deſire, either of the forenamed food, or elſe of ſome better if need require; for it muſt be principally regarded, that the Cattel fall not into leanneſs in the Winter time, for leanneſs is the mother of many ſickneſſes in Cattel, and their utter overthrow, and therefore the benefits by their full feeding are many, as may appear by that common proverbe, ***Bos ad acervum***, that is, an Ox to a whole heap, to ſignifie ſuch men as live in all plenty and aboundance. The like care muſt be had of their drink, for the Neat-herd muſt diligently look unto their drink, that it may be alway clear, and it is reported of the rivers *Crathis* and *Sibaris*, that the Cattel which drink of their water do turn white, whatſoever colour they had in former times.

The time of Oxens age.

They will live in ſtrength and perfection twelve years, and their whole life is for the moſt part but twenty, Kie live not ſo long; the means to know their age is by their teeth and their horn, for it is obſerved that their teeth grow black in their age, and their horns wax more circled as they grow in years, although I dare not affirm that every circle betokeneth a years growth, (as ſome have writen) yet I am aſſured the ſmooth horn ſheweth a young beaſt. Moreover, although Kie will endure much cold and heat both in Winter and Summer, yet muſt you have more regard to your Oxen, and therefore it is required that they in the Winter cold weather be kept dry and houſed in ſtals, which muſt be of convenient quantity, ſo as every Ox may be lodged upon ſtraw, the floor made higher under their forefeet then their hinder, ſo as their urine may paſſe away and not ſtand to hurt their hoofs: and there be alſo allowed for the ſtanding and lodging of every Ox eight foot in breadth, and a length anſwerable. The like regard muſt be had to their manger and rack, whereof the ſtaves muſt not ſtand above one foot, or rather leſſe from one another, that ſo they may not draw out their meat and ſtamp it underfoot.

The medicines to preſerve an ox in ſtrength.

But all the diet and food that the wit of man can ordain, will do them no manner of good if regard be not had to their bodily health, and preſervation of ſtrength, for which cauſe they muſt receive an ordinary medicine every quarter of the year; that is, in the end of the Spring, Summer, Autumn, and Winter; which in ſome places is thus made and given in potion, they take of Cypres, and Lupine leaves an equall quantity, beat them ſmall, then ſet them in water in the open air a day and a night, and afterward give unto every one for three daies together warmed as much as a wine pinte.

Paxamus.

Vows and ſuperſtitious medicines for the cure of Cattel.

In other places they give them to prevent ſickneſs, a raw Egge, a handful of ſalt in a pinte of wine: and other put into the meat of Oxen, the foam of new oil mingled with water, firſt a little at once until they be accuſtomed unto it, and afterward more, and this they do every fourth or fifth day. *Cato* reciteth a certain vow or prayer, which the old Idolatrous *Romans* were wont to make for the health of their Cattel, to ***Silvanus Mars***; which was on this manner. Firſt, they take three pound of green wheat, and of Lard four pounds, and four pound and a half of fleſhie ſinews, and three pints and a half of wine, then put them into earthen pots with hony, and put in the wine by it ſelf, and this they did yearly, but no woman might know how it is made, or be preſent at the time of the preparation, and it being made muſt be preſently conſumed by fire. Unto this ridiculous and ſuperſtitious idle invention, ſerving more to expreſs the folly of man, then to benefit either man or beaſt, I may add that kind of ſacrifice made for beaſts, which *Pliny* calleth *Daps*, that was made in the Spring time when the Pear-tree did bloſſom, the manner whereof was thus, They did offer to *Jupiter Dapalis* a bowl of wine, on the ſame day the herd-men and herds make their ſacrifice, ſaying in this manner, O *Jupiter Dapalis*, I offer unto thee this cup of wine, in the behalf of my ſelf, family and Cattel, if thou wilt perform that unto them which belongeth to thee, be good to this wine beneath, be good to this my ſacrifice: Afterward the party waſhed his hands, and then drank the wine ſaying, O *Jupiter Dapalis*, be good to this my ſacrifice, be good to this inferiour wine, and if thou wilt, give part thereof to *Veſta*: the ſacrifice being ended he took Millet-ſeed, Lentils, Oxipanum, and Garlick: *Thus far Cato*; wherewith if any Reader be offended, let him remember to pity ſuch poor remedies, and commend his Cattel to the true God, that ſaveth man and beaſt. The *Druids* of the *Gauls*, called a certain herb growing in moyſt places *Samolum*; which being gathered by the left hand of them that were faſting, they gave it for an Antidote to Oxen and Swine. And *Galen* telleth of another ſuperſtitious cure for Oxen, when a man took the horn of a Hart, and layed it upon the Chappel of *Pan*, and ſet upon it a burning Candle, which muſt not be forgotten, but alway thought upon in the day time, calling upon holy *Demuſaris*, which fooliſh people have thought as it were by a witchcraft, to cure the evils of their Cattel.

The diſcovery of the ſickneſs of Cattel, and the particular cure thereof.

But to let paſſe theſe and ſuch like trifles, let us follow a more perfect deſcription and rule to cure all manner of diſeaſes in this Cattel, whoſe ſafegard and health next to a mans, is to be preferred above all other: and firſt of all the means whereby their ſickneſs is diſcovered may be conſidered, as all Laſſitude or weariſomeneſs through overmuch labour, which appeareth by forbearing their meat, or eating after another faſhion then they are wont, or by their often lying down, or elſe by holding out their tongue, all which and many more ſignes of their diſeaſes, are manifeſt to them that have obſerved them in the time of their health; and on the other ſide it is manifeſt, that the health of an Ox may be known by his agility, life and ſtirring, when they are lightly touched or pricked, ſtarting, and holding their ears upright, fulneſs of their belly, and many other wayes.

There be alſo herbs which increaſe in Cattel divers diſeaſes, as herbs bedewed with Hony bringeth the Murrain, the juyce of black *Chamæleon* killeth young Kie like the Chine, black *Hellebore*, *Aconitum*, or Wolf-bane, which is that graſſe in *Cilicia*, which inflameth Oxen, herb Henry, and others. It is alſo reported by *Ariſtotle*, that in a piece of *Thracia*, not far from that City which is called the City of *Media*, there is a place almoſt thirty furlongs in length, where naturally groweth a kind of Barley, which is good for men, but pernicious for beaſts. The like may be ſaid of *Aegolothros*, *Orobanche* and *Aeſtur*, but I will haſten to the particular deſcription of their diſeaſes.

The diſeaſes which infeſt Oxen & Kie.

In the firſt place is the *Malis* or *Glaunders* already ſpoken of in the ſtory of the Aſſe, which may be known by theſe ſignes, the Oxes hair will be rough and hard, his eyes and neck hang down, matter running out of the noſe, his pace heavy, chewing his cud little, his backbone ſharp, and his meat loathſome unto him; for remedy hereof take Sea-onions or Garlick, Lupines or Cipres, or elſe the foam of oil. And if a beaſt eat Hogs dung, they preſently fall ſick of the Peſtilence, which infecteth the herbs and graſſe they breath on, the waters whereof they drink, and the ſtals and lodgings wherein they lie. The humors which annoy the body of Oxen are many, the firſt is a moiſt one called Malis, iſſuing at the noſe, the ſecond a dry one when nothing appeareth outwardly, only the beaſt forſaketh his meat, the third an articular, when the fore or hinder legs of the beaſt halt, and yet the hoofs appear ſound, the fourth is *Farciminous*, wherein the whole body breaketh forth into mattry bunches and biles, and appear healed till they break forth in other places, the fifth *Subtercutaneus*, when under the skin there runneth a humour that breaketh forth in many places of the body; the ſixth a *Subrenal*, when the hinder legs halt by reaſon of ſome pain in the loins, the ſeventh a Maungie or Leproſie, and laſtly a madneſs or Phrenſie, all which are contagious, and if once they enter into a herd, they will infect every beaſt if they be not ſeparated from the ſick, and ſpeedy remedy obtained.

The remedies againſt the laſt ſeven are thus deſcribed by *Columella*. Firſt take *Oxipanum* and ſea-holy roots mingled with Fennel-ſeed and meal of beaten wheat rath-ripe; put them in ſpring water warmed with hony nine ſpoonfuls at a time, and with that medicine anoint the breaſt of the beaſt, then take the bloud of a Sea-ſnail, and for want thereof a common Snail, and put it into wine, and give the beaſt in at his noſe, and it hath been approved to work effectually. It is not good at any time to ſtir up Oxen to running, for chafing will either move them to looſeneſs of the belly, or drive them into a Feaver: now the ſignes of a Feaver are theſe, an immoderate heat over the whole body, eſpecially about the mouth, tongue and eares, tears falling out of the eyes, hollowneſs of their eyes, a heavy and ſtooping drowzie head, matter running out of his noſe, a hot and difficult breath, and ſometime ſighing and violent beating of his veins and loathing of meat: for remedy whereof, let the beaſt faſt one whole day, then let him be let bloud under the tail faſting, and afterward make him a drink of bole-wort ſtalkes ſod with oil and liquor of fiſh ſauce, and ſo let him drink it for five daies together before he eat meat; afterward let him eat the tops of Lentils, and young ſmall Vine branches, then keep his noſe and mouth clean with a ſpunge, and give him cold water to drink three times a day, for the beſt means of recovery are cold meats and drinks, neither muſt the beaſt be turned out of doors, till he be recovered: When an Ox is ſick of a cold, give him black wine, and it will preſently help him.

Curſus boum aut ciet alvum, aut febrim inducit.

If an Ox in his meat taſt of hens dung, his belly will preſently be tormented, and ſwell unto death if remedy be not given; for this malady, take three ounces of parſley ſeed, a pinte and a half of Cummin, two pounds of honey, beat theſe together and put it down his throat warme, then drive the beaſt up and down, as long as he can ſtand, then let as many as can ſtand about him rub his belly, untill the medicine work to purgation: and *Vegetius* addeth, that the aſhes of Elme wood well ſod in oil, and put down the beaſts throat, cureth the inflamation of hen-dung. If at any time it happen, that an Ox get into his mouth and throat a horſe-leech, which at the firſt will take faſt hold, and ſuck the place ſhe holds (be it mouth or throat) til ſhe have kild the beaſt: if you cannot take hold on her with the hand, then put into the Oxes throat a Cane, or little hollow pipe, even to the place where the Leech ſucketh, and into that pipe put warm oil, which as ſoon as the Leech feeleth, ſhe preſently leaveth hold.

It fortuneth ſometimes that an Ox is ſtung or bitten with a Serpent, Adder, Viper, or other ſuch venomous beaſt; for that wound take ſharp Trifoly, which groweth in rockie places, ſtrain out the juice and beat it with ſalt, then ſcarifie the wound with that ointment, till it be wrought in. If a field-mouſe bite an Ox, ſo as the dint of her teeth appear, then take a little Cumin or ſoft Pitch, and with that make a plaiſter for the wound: or if you can get another field-mouſe, put her into oil, and there let it remain till the members of it be almoſt rotten, then bruiſe it and lay it to the ſore; and the ſame body ſhall cure, whoſe nature gave the wound. Oxen are alſo much troubled with a diſeaſe called the Hide-bonnd; for remedy wereof, when the beaſt is taken faom his work, and panteth, then let him be ſprinkled over with wine, and put pieces of fat into his mouth: if then you perceive no amendment, then ſeethe ſome Laurel, and therewith heat his back, and afterward with oil and wine ſcarifie him all over, plucking his skin up from the ribs, and this muſt be done in the ſunſhine, or elſe in a very warm place.

For the ſcabs, take the juice of Garlick, and rub the beaſt all over; and with this medicine may the biting of a Wolf or a mad Dog be cured: although other affirm, that the hoof of any beaſt with Brimſtone, Oil, Water and Vinegar, is a more preſent remedy; but there is no better thing then Butter and ſtale Urine: When they are vexed with wormes, poure cold water upon them, afterward anoint them with the juice of onions mingled with Salt.

If an Ox be wrinched and ſtrained in his ſinews, in travel or labour, by ſtumping on any root or hard ſharp thing, then let the contrary foot or leg be let bloud, if the ſinews ſwell: If his neck ſwell, let him bloud, or if his neck be windiug or weak (as if it were broken) then let him bloud in that ear to which ſide the head bendeth. When their necks be bald, grinde two tile together, a new one and an old, and when the yoak is taken off, caſt the powder upon their necks, and afterward oil, and ſo with a little reſt the hair will come again.

When an Ox hangeth down his ears and eateth not his meat, he is troubled with a *Cephalalgie*; that is, a pain in his head: for which, ſeethe Thyme in Wine, with Salt and Garlick, and therewith rub his tongue a good ſpace: alſo raw Barly ſteeped in Wine, helpeth this diſeaſe. Sometime an Ox is troubled with madneſs, for which men burn them betwixt the horns in the forehead till they bleed: ſometime there is a Flie which biting them continually, driveth them into madneſs; for which they are wont to caſt Brimſtone and bay ſprigs ſod in water in the Paſtures where they feed, but I know not what good can come thereby. When Oxen are troubled with fleam, put a ſprig of black *Hellebore* through their ears wherein let it remain till the next day at the ſame hour. All the evils of the eyes are for the moſt part cured by infuſion of Hony, and ſome mingle therewith *Ammoniack, Salt*, and *Boetick*. When the palat or roof of their mouth is ſo ſwelled that the beaſt forſaketh meat, and bendeth on the one ſide let his mouth be paired with a ſharpe inſtrument, or elſe burned or abated ſome other way, giving them green and ſoft meat till the tender ſore be cured: but when the cheeks ſwell, for remedy whereof they ſell them away to the Butcher for ſlaughter: it falleth out very often that there grow certain bunches on their tongues, which make them forſake their meat, and for this thing they cut the tongue, and afterward rub the wound with Garlick and Salt, till all the fleamy matter iſſue forth.

When their veins in their cheeks and chaps ſwell out into ulcers, they ſoften and waſh them with Vinegar and Lees, till they be cured. When they are liver-ſick, they give them *Rubarbe, Muſhroms*, and *Gentian*, mingled together. For the Cough and ſhort breath, they give them twigs of Vines, or Juniper mingled with Salt; and ſome uſe Betony.

There is a certain herb called *Aſplenon* or *Citteraeh*, which conſumeth the milts of Oxen, found by this occaſion: in *Crete* there is a River called *Protereus*, running betwixt the two Cities *Gnoſon* and *Gortina*, on both ſides thereof there were herds of Cattel, but thoſe which fed neer to *Gortina* had no Spleen, and the other which feed neer to *Gnoſon* were full of Spleen: when the Phyſitians endevoured to find out the true cauſe hereof, they found an herb growing on the coaſt of *Gortina*, which diminiſhed their Spleen, and for that cauſe called it *Aſplenon*. But now to come to the diſeaſes of their breaſt and ſtomach, and firſt of all to begin with the Cough, which if it be new may be cured by a pinte of Barley meal with a raw Egge, and half a pinte of ſod wine: and if the Cough be old, take two pounds of beaten Hyſop ſod in three pints of water, beaten Lentils, or the roots of Onions waſhed and baked with Wheat meal given faſting, do drive away the oldeſt Cough. For ſhortneſs of breath, their Neat-herds hang about their neck Deaths-herb and Harts-wort: but if their Livers or Lungs be corrupted, (which appeareth by a long Cough and leaneſs) take the root of Haſell, and put it through the Oxes ear; then a like or equall quantity of the juyce of Onions, and oil mingled, and put into a pinte of Wine, let it be given to the beaſt many dayes together. If the Ox be troubled with crudity, or a raw evill ſtomach, you ſhall know by theſe ſignes; he will often belch, his belly will rumble, he will forbear his meat, hanging down his eyes, and neither chew the cud or lick himſelf with his tongue: for remedy whereof, take two quarts of warm water, thirty ſtalkes of *Bolcworts*, ſeethe them together till they be ſoft, and then give them to the beaſt with Vinegar.

But if the crudity cauſe his belly to ſtand out and ſwell, then pull his tail downward with all the force that you can, and binde thereunto Mother-wort, mingled with ſalt, or elſe give them a Glyſter, or anoint a Womans hand with oil, and let her draw out the dung from the fundament; and afterward cut a vein in his tail with a ſharp knife. When they be diſtempered with choler, burn their legs to the hoofs with a hot Iron, and afterward let them reſt upon clean and ſoft ſtraw: when their guts or intrails are pained, they are eaſed with the ſight of a Duck or a Drake.

But when the ſmall guts are infected, take fifteen *Cypres* Apples, and ſo many Gauls, mingle and beat them with their weight of old Cheeſe in four pints of the ſharpeſt wine you can get, and ſo divide it into four parts, giving to the beaſt every day one quantity. The excrements of the belly do deprive the body of all ſtrength and power to labour; wherefore when they are troubled with it, they muſt reſt, and drink nothing for three daies together, and the firſt day let them forbear meat, the ſecond day give them the tops of wilde Olives, or in defect thereof Canes or Reeds; the ſtalks of *Lentiske* and *Myrtill*; and a third day a little water, and unto this ſome add dryed Grapes in ſix pintes of ſharp wine, given every day in like quantity. When their hinder parts are lame through congealed bloud in them, whereof there is no outward appearance, take a bunch of Nettles with their roots and put it into their mouths, by rubbing whereof the condenſate bloud will remove away.

When Oxen come firſt of all after Winter to graſſe, they fall graſſe-ſick, and piſſe bloud; for which they ſeethe together in water Barly, Bread, and Lard, and ſo give them all together in a drink to the beaſt: ſome praiſe the kernels of Walnuts put into Eggeſhels for this cure; and other take the bloudy water it ſelf, and blow it into the beaſts Noſtrils; and herd-men by experience have found that there is no better thing then Herb-Robert, to ſtay the piſſing of bloud; they muſt alſo be kept in a ſtall within doors, and be fed with dry graſſe and the beſt hay. If their horns be anointed with wax, oil, and pitch, they feel no pain in their hoofs, except in caſes where any beaſt treadeth and preſſeth anothers hoof; in which caſe take oil and ſod wine, and then uſe them in a hot Barly plaiſter or poulteſs layed to the wounded place: but if the plough-ſhare hurt the Oxes foot, then lay thereunto Stone-pitch, Greaſe and Brimſtone, having firſt of all ſeared the wound with a hot Iron bound about with ſhorn wool.

Now to return to the taming and inſtruction of Oxen. It is ſaid that *Buſiris* King of *Egypt* was the firſt that ever tamed or yoaked Oxen, having his name given him for that purpoſe. Oxen are by nature meek, gentle, ſlow, and not ſtubborne, becauſe being deprived of his genitals he is more tractable, and for this cauſe it is requiſite that they be alwayes uſed to hand, and to be familiar with man, that he may take bread at his hand, and be tyed up to the rack, for by gentleneſs they are beſt tamed, being thereby more willing and ſtrong for labour, then if they were roughly yoaked or ſuffered to run wilde without the ſociety and ſight of men. *Varro* ſaith, that it is beſt to tame them betwixt five and three year old, for before three it is too ſoon, becauſe they are too tender; and after five it is too late, by reaſon they are too unweildy and ſtubborn.

How to tame or yoak wilde Oxen.

But if any be taken more wilde and unruly, take this direction for their taming: First, if you have any old tamed Oxen, joyne them together, (a wilde and a tame) and if you pleaſe, you may make a yoak to hold the necks of three Oxen; ſo that if the beaſt would rage and be diſobedient, then will the old one both by example and ſtrength draw him on, keeping him from ſtarting aſide, and falling down. They muſt alſo be accuſtomed to draw an empty Cart, Wain, or ſled through ſome Town or Village, where there is ſome concourſe of people, or a plow in fallowed ground or ſand, ſo as the beaſt may not be diſcouraged by the weight and ſtrength of the buſineſs; their keeper muſt often with his own hand give them meat into their mouth, and ſtroke their Noſes, that ſo they may be acquainted with the ſmell of a man; and likewiſe put his hands to their ſides, and ſtroke them under their belly, whereby the beaſt may feel no diſpleaſure by being touched. In ſome Countries, they waſh them all over with wine for two or three daies together, and afterward in a horn give them wine to drink, which doth wonderfully tame them, although they have never been ſo wild. Other put their necks into engins, and tame them by ſubſtracting their meat. Other affirm, that if a wilde Ox be tyed with a halter made of wool, he will preſently wax tame: but to this I leave every man to his particular inclination for this buſineſs; only let them change their Oxens ſides, and ſet them ſometime on the right ſide, and ſometime on the left ſide, and beware that he avoid the Oxes heel, for if once he get the habite of kicking, he will very hardly be reſtrained from it again. He hath a good memory, and will not forget the man that pricked him, whereas he will not ſtir at at another, being like a man in fetters, who diſſembleth vengeance untill he be releaſed, and then payeth the perſon that hath grieved him. Wherefore it is not good to uſe a young Oxe to a goad: but rather to awaken his dulneſs with a whip.

Raſis.

The underſtanding of Oxen.

Theſe beaſts do underſtand their own names, and diſtinguiſh betwixt the voice of their keepers and ſtrangers. They are alſo ſaid to remember and underſtand numbers, for the King of *Perſia* had certain Oxen, which every day drew water to *Suſis* to water his Gardens, their number was an hundred Veſſels, which through cuſtom they grew to obſerve, and therefore not one of them

would

Guidus.
Ælianus.
The love of Oxen to their yoak-fellow.
Of the licking of Oxen, natural obſervations.

would halt or loiter in that buſineſs, till the whole was accompliſhed : but after the number fulfilled, there was no goad, whip, or other means, could once make them ſtir, to fetch another draught or burthen. They are ſaid to love their fellows with whom they draw in yoak moſt tenderly, whom they ſeek out with mourning if he be wanting. It is likewiſe obſerved in the licking of themſelves againſt the hair, (but as *Cicera* ſaith) if he bend to the right ſide and lick that, it preſageth a ſtorm ; but if he bend to the left ſide, he foretelleth a calmy fair day : In like manner, when he lougheth and ſmelleth to the earth, or when he feedeth fuller then ordinary, it betokeneth change of weather: but in the *Autumn*, if Sheep or Oxen dig the earth with their feet, or lie down head to head, it is held for an aſſured token of a tempeſt.

Their aptneſs to go aſtray.
The anger of Oxen & Kie.
Gillius.
Oxen provoked by colours.

They feed by companies and flocks, and their nature is to follow any one, which ſtrayeth away ; for if the Neat-herd be not preſent to reſtrain them, they will all follow to their own danger. Being angred and provoked they will fight with ſtrangers very irefully, with unappeaſable contention : for it was ſeen in *Rhætia*, betwixt *Curia* and *Velcuria*, that when the herds of two Villages met in a certain plain together, they fought ſo long, that of threeſcore, four and twenty were ſlain, and all of them wounded, eight excepted, which the inhabitants took for an ill preſage or miſchief of ſome enſuing calamity, and therefore they would not ſuffer their bodies to be covered with earth : to avoid this contention, skilful Neat-herds give their Cattel ſome ſtrong herbs, as garlick and ſuch like, that the ſavour may avert that ſtrife. They which come about Oxen, Buls, and Bugils, muſt not wear any red garments, becauſe their nature riſeth and is provoked to rage, if they ſee ſuch a colour.

Raſis.

There is great enmity between Oxen and Wolves, for the Wolf (being a fleſh-eating creature) lyeth in wait to deſtroy them ; and it is ſaid, that there is ſo great a natural fear in them, that if a Wolves tail be hanged in the rack or manger where an Ox feedeth, he will abſtain from eating. This beaſt is but ſimple, though his aſpect ſeem to be very grave ; and thereof came the proverb of the Oxen to the yoak, which was called *Ceroma* ; wherewithal Wraſtlers and Prize-players were anointed, but when a fooliſh and heavie man was anointed they ſaid ironically *Bos ad ceroma.*

Again the folly of this beaſt appeareth by another *Greek* proverb, which ſaith, that *An Ox raiſeth duſt which blindeth his own eyes* ; to ſignifie, that fooliſh and indiſcreet men ſtir up the occaſion of their own harmes. The manifold *Epithets* given this beaſt in *Greek* and *Latin* bv ſundry authors, do demonſtratively ſhew the manifold conditions of this beaſt ; as that it is called a Plower, Wilde, an earth-tiller, brazen-footed, by reaſon of his hard hoofs, *Cerebrous*, more brain then wit ; horned, ſtubborn, horn-ſtiking, hard, rough, untamed, devourer of graſſe, yoak-bearer, fearful, overtamed, drudges, wry-faced, ſlow, and ill favoured, with many other ſuch notes of their nature, ordination, and condition.

The natural uſes of the ſeveral parts of Oxen.
How to fatten Cattel.

There remain yet of this diſcourſe of Oxen, two other neceſſary *Tractates* ; the one natural, and the other moral. That which is natural, contains the ſeveral uſes of their particular parts, and firſt for their fleſh, which is held ſingular for nouriſhment, for which cauſe, after their labour which bringeth leanneſs, they uſe to put them by for ſagination, or (as it is ſaid) in *Engliſh* for feeding, which in all countries hath a ſeveral manner or cuſtom. *Sotion* affirmeth, that if you give your Cattel when they come freſh from their paſture, Cabbage leaves beaten ſmall with ſome ſharp Vinegar poured among them, and afterward chaffe winowed in a ſieve, and mingled with Bran for five daies together, it will much fatten and encreaſe their fleſh, and the ſixth day ground Barly, encreaſing the quantity by little and little for ſix daies together.

Now the beſt time to feed them in the Winter is about the Cock crowing, and afterward in the morning twilight, and ſoon after that let them drink : in the Summer let them have their firſt meat in the morning, and their ſecond ſervice at noon, and then drink after that ſecond meat or eating, and their third meat before evening again, and ſo let them drink the ſecond time ; It is alſo to be obſerved, that their water in Winter time be warmed, and in the Summer time colder. And while they feed, you muſt often waſh the roof and ſides of her mouth, for therein will grow certain Wormes which will annoy the beaſt, and hinder his eating, and after the waſhing, rub his tongue well with ſalt. If therefore they be carefully regarded they will grow very fat, eſpecially if they be not over aged or very young at the time of their feeding ; for by reaſon of age their teeth grow looſe and fall out, and in youth they cannot exceed in fatneſs, becauſe of their growth : above all Heifers and barren Kie will exceed in fatneſs, for *Varro* affirmeth, that he ſaw a field Mouſe bring forth young ones in the fat of a Cow having eaten into her body ſhe being alive : the ſelf ſame thing is reported of a Sow in *Arcadia* : Kie will alſo grow fat when they are with Calf, eſpecially in the middeſt of that time. The *Turks* uſe in their greateſt feaſts and Mariages, to roaſt or ſeethe an Ox whole, putting in the Oxes belly a whole Sow, and in the Sowes belly a Gooſe, and in the Gooſes belly an Egge, to note forth their plenty in great and ſmall things : but the beſt fleſh is of a young Ox, and the worſt of an old one, for it begetteth an ill juyce or concoction, eſpecially if they which eat it be troubled with a Cough or rheumy fleam, or if the party be in a Conſumption, or for a woman that hath ulcers in her belly, the tongue of an Ox or Cow ſalted and ſlit aſunder, is accounted a very delicate diſh, which the Prieſts of *Mercury* ſaid did belong to them, becauſe they were the ſervants of ſpeach, and howſoever in all ſacrifices the beaſts tongue was refuſed as a profane member, yet theſe Prieſts made choiſe thereof, under colour of ſacrifice to feed their dainty ſtomachs.

A ſtrange report of a fat Cow, if true.

The horns of Oxen by art of man are made very flexible and ſtraight, whereof are made Combes, hafts for knives, and the ancients have uſed them for cups to drink in, and for this cauſe was *Bacchus* painted with horns, and *Crater* was taken for a cup, which is derived of *Kera* a horn. In like manner the firſt Trumpets were made of horns, as *Virgil* alludeth unto this ſentence, *Rauco ſtrepuerunt cornua cantu*, and now adaies it is become familiar for the cariage of Gunpowder in war. It is reported by ſome husbandmen, that if ſeed be caſt into the earth out of an Oxes horn (called in old time *Cerasbola*) by reaſon of a certain coldneſs, it will never ſpring up well out of the earth, at the leaſt not ſo well as when it is ſowed with the hand of man. Their skin is uſed for ſhooes, Garments, and Gum, becauſe of a ſpongy matter therein contained, alſo to make Gunpowder, and it is uſed in navigation when a ſhot hath pierced the ſides of the ſhip, preſently they clap a raw Ox hide to the mouth of the breach, which inſtantly keepeth the Water from entring in: likewiſe they were wont to make bucklers or ſhieldes or hides of Oxen and Bugils, and the ſeven-folded or doubled ſhield of *Ajax*, was nothing elſe but a ſhield made of an Ox hide, ſo many times layed one piece upon another, which cauſed *Homer* to call it *Sacos heptaboeion.*

Of the teeth of Oxen I know no other uſe but ſcraping and making paper ſmooth with them; their gall being ſprinkled among ſeed which is to be ſowen maketh it come up quickly, and killeth field-miſe that taſt of it, and it is the bane or poiſon of thoſe creatures, ſo that they will not come neer to it, no not in bread if they diſcern it; and birds if they eat corn touched with an Oxes gall put into hot water firſt of all, and the lees of wine, they wax thereby aſtoniſhed: likewiſe Emmets will not come upon thoſe places where there remaineth any ſavour of this gall; and for this cauſe they anoint herewith the roots of trees. The dung of Oxen is beneficial to Bees if the hive be anointed therewith, for it killeth Spiders, Gnats, and drone-bees; and if good heed be not taken, it will work the like effect upon the Bees themſelves: for this cauſe they uſe to ſmother or burn this kind of dung under the mouthes of the Hives in the ſpring time, which ſo diſplayeth and diſperſeth all the little enemy-bees in Bee-hives that they never breed again. There is a proverb of the ſtable of *Augea*, which *Augea* was ſo rich in Cattel, ahat he defiled the Countrey with their dung, whereupon that proverb grew: when *Hercules* came unto him he promiſed him a part of his Countrey to purge that ſtable, which was not cleanſed by the yearly labour of 3000 Oxen, but *Hercules* undertaking the labour turned a River upon it, and ſo cleanſed all. When *Augea* ſaw that his ſtable was purged by art, and not by labour, he denied the reward; and becauſe *Phyleus* his eldeſt Son reproved him for not regarding a man ſo well deſerving, he caſt him out of his family for ever.

The medicines of the ſeveral parts of Oxen and Kie.

Raſis.

Furnerius.

The manifold uſe of the members of Oxen and Kie in medicine, now remaineth to be briefly touched. The horn beaten into powder, cureth the Cough, eſpecially the tips or point of the horn, which is alſo received againſt the Ptiſick, or ſhort breath made into pils with Honey. The powder of a Cowes horn mixed with Vinegar, helpeth the morphew, being waſhed or anointed therewith. The ſame infuſed into the Noſtrils, ſtayeth the bleeding: likewiſe mingled with warm water and Vinegar, given to a *Splenitick* man for three daies together, it wonderfully worketh upon that paſſion: powder of the hoof of an Ox with water put upon the Kings evill helpeth it, and with Water and Honey it helpeth the apoſtemes and ſwelling of the body: and the ſame burned and put into drink, and given to a Woman that lacketh Milk, it encreaſeth milk and ſtrengtheneth her very much. Other take the tongue of a Cow, which they dry ſo long till it may be beaten into powder, and ſo give it to a woman in white wine or broath. The duſt of the heel of an Ox or ancle bone, taken in wine and put to the gums or teeth do faſten them, and remove the ach away: The ribs of Oxen beaten to powder do ſtay the flux of bloud, and reſtrain the aboundance of monthly courſes in women. The ancle of a white Cow laid forty daies and nights into wine, and rubbed on the face with white Linet, taketh ſpots and maketh the skin look very clear.

Where a man biteth any other living creature, ſeethe the fleſh of an Ox or a Calf, and after five daies lay it to the ſore, and it ſhall work the eaſe thereof. The fleſh being warm layed to the ſwellings of the body, eaſeth them: ſo alſo do the warm bloud and gall of the ſame beaſt.

The broath of beef healeth the looſneſs of the belly, coming by reaſon of choler; and the broath of Cowes fleſh, or the marrow of a Cow, healeth the ulcers and chinks of the mouth. The skin of a Ox (eſpecially the leather thereof) warm in a ſhooe, burned and applyed to pimples in the body or face, cureth them. The skin of the feet and noſe of an Ox or Sheep, ſod over a ſoft and gentle fire, untill there ariſe a certain ſcum like to glew from it, and afterward dried in the cold, windie air, and drunk helpeth (or at leaſt) eaſeth burſtneſs very much.

The marrow of an Ox, or the ſewet, helpeth the ſtrains of ſinews if they be anointed therewith. If one make a ſmall candle of Paper and Cowes marrow, ſetting the ſame on fire, under his browes or eye-lids which are bald without hair, and often anointing the place, he ſhall have very decent and comely hair grow thereupon. Likewiſe the ſewet of Oxen helpeth againſt all outward poiſon: ſo in all Leproſies, Botches, and Scurvineſs of the skin, the ſame mingled with Gooſe greaſe, and poured into the eares, helpeth the deafneſs of them. It is alſo good againſt the inflamation of the ears, the ſtupidity and dulneſs of the teeth, the running of the eyes, the ulcers and rimes of the mouth, and ſtifneſs of the neck. If ones bloud be liquid and apt to run forth of the body, it may be well thickned and retained, by drinkin g Ox bloud mingled with Vinegar: and the bloud of a Cow poured into a wound that bleedeth, ſtayeth the bloud. Likewiſe the bloud of Oxen cureth the ſcabs in Dogs.

Pliny.
A Hiſtory.

Concerning their Milk, volumes may be written of the ſeveral and manifold virtues thereof, for the *Arcadians* refuſed all medicine, only in the Spring time when their beaſts did eat graſſe, they drank Cowes milk, being perſwaded, that the virtue and vigour of all good herbs and fruits were received and digeſted into that liquor; for they gave it medicinally to them which were ſick of the Priſick, of Conſumption, of an old Cough, of the Conſumption of the reins, of the hardneſs of the belly, and of all manner of poiſons which burn inwardly; which is alſo the opinion of all the *Greek* Phyſitians: and the ſhell of a Walnut ſod in Cow-milk and laid to the place where a Serpent hath bitten, it cureth it, and ſtayeth the poiſon.

The ſame being new and warm Gargarized into the throat, helpeth the ſoreneſs of the kernels, and all pain in the Arteries, and ſwelling in the throat and ſtomach: and if any man be in danger of a ſhort breath, let him take dayly ſoft pitch with the hearb *Mummie*, and Harts ſuet clarified in a Cup of new Milk, and it hath been proved very profitable.

Where the pains of the ſtomach come by ſadneſs, Melancholy, or deſperation, drink Cow-milk, Womans milk, or Aſſes milk, wherein a flint ſtone hath been ſodden. When one is troubled with a deſire of going often to the ſtool, and can egeſt nothing, let him drink Cow-milk and Aſſes-milk ſod together; the ſame alſo heated with gads of Iron or ſteel, and mingled with one fourth part of water, helpeth the Bloudy flux; mingled with a little Hony and a Buls gall, with Cummin and gourds layed to the Navel: and ſome affirm, that Cow-milk doth help conception if a woman be troubled with the whiteflux ſo that her womb be indangered, let her drink a purgation for her upper parts, and afterward Aſſes milk, laſt of all let her drink Cow-milk and new wine (for forty daies together if need be) ſo mingled that the wine appear not in the milk, and it ſhall ſtay the flux. But in the uſe of milk, the rule of *Hippocrates* muſt be continually obſerved, that it be not uſed with any ſharp or tartd liquor for then it curdleth in the ſtomach, and turneth into corruption. The whay of Cow-milk mingled with Hony and Salt, as much as the taſt will permit and drunk, looſeneth the hardneſs of the belly.

The marrow of a Cow mingled with a little meal, and with new cheeſe, wonderfully ſtayeth the Bloudyflux. It is affirmed, that there is in the head of an Ox, a certain little ſtone, which only in the fear of death he caſteth out at his mouth, if this ſtone be taken from them ſuddenly by cutting the head, it doth make children to breed teeth eaſily, being ſoon tyed about them. If a man or woman, drink of the ſame water, whereof an Ox drunk a little before, it will eaſe the headach: and in the ſecond venter of a Cow there is a round black *Tophus* found, being of no weight, which is accounted very profible to Women in hard travails of child-birth. The Liver of an Ox or Cow dryed, and drunk in powder cureth the flux of boud. The gall of a Cow is more forcible in operation then all other beaſts gals whatſoever. The gall of an Ox mixed with Hony, draweth out any thorn or point of a needle or other Iron thing out of the fleſh where it ſticketh. Likewiſe it being mingled with Alome and Myrrhe as thick as hony, it cureth thoſe evils which creep and annoy the privie parts; laying upon it afterward Beets ſod in wine.

It will not ſuffer the Kings evill to grow or ſpread it ſelf if it be laid upon it at the beginning. The hands waſhed in an Oxes gall and water, are made white how black ſoever they were before time; and if purblind eyes be anointed with the gall of a black Cow, one may read any writing the more plainly: there is in the gall of an Ox a certain little ſtone, like a ring, which the Philoſophers call *Alcheron* (and ſome *Guers* and *Noſſatum*) which being beaten and held to ones Noſe, it cleareth the eyes, and maketh that no humour do diſtil to annoy them: and if one take thereof the quantity of a Lintel ſeed, with the juice of Beets, it is profitable againſt the Falling evill. If one be deaf or thick of hearing, take the gall of an Ox and the urine of a Goat; or the gall of Gooſe: likewiſe, it eaſeth the headach in an Ague, and applyed to the temples provoketh ſleep, and if the breaſts of a woman be anointed therewith it keeps her milk from curdling.

The milt of an Ox is eaten in hony for eaſing the pains of the milt in a man, and with the skin that a Calf caſt out of his dams belly, the ulcers in the face are taken away: and if twenty heads of Garlick be beaten in a Oxes bladder, with a pinte of Vinegar, and laid to the back, it will cure the milt. It is likewiſe given againſt the Spleen, and the Colick made like a plaiſter, and layed to the Navel till one ſweat.

The urine of an Ox cauſeth a cold ſtomach to recover, and I have ſeen that the urine of a Cow taken in Gargarizing, did cure intolerable ulcers in the mouth. When the Bee hath taſted of the flower of the Corn-tree, ſhe preſently dyeth by looſeneſs of the belly, except ſhe taſt the urine of a Man or an Ox.

There are likewiſe many uſes of the dung of Oxen made in Phyſick, whereof Authors are full, but eſpecially againſt the Gowt, plaiſtering the ſick member therewith hot and newly made: and againſt the Dropſie, making a plaiſter thereof with Barley meal and a little Brimſtone aſperſed, to cover the belly of a man. And thus much for the natural properties of this kind, now we will briefly proceed to the moral.

The moral uſes of this beaſt, both in labour and other things, do declare the dignity and high account our forefathers made hereof, both in Vintage, Harveſt, Plowing, Carriage, Drawing,

The moral and external uſe of Oxen both for labour and other induſtry.

Varro.

Sacrificing, and making Leagues of truce and peace; in ſo much as that if this failed, all tillage and vintage muſt in many places of the world be utterly put down; and in truth, neither the fowls of the air, nor the Horſe for the battle, nor the Swine and Dogs could have no ſuſtenance but by the labor of Oxen: for although in ſome places they have Mules, or Camels, or Elephants, which help them in this labor, yet can there not be in any Nation a neglect of Oxen; and their reverence was ſo great, that in ancient time when an offender was to be fined in his Cattel (as all amerciaments were in thoſe daies) the Judge might not name an Ox, untill he had firſt named a Sheep; and they fined a ſmal offence at two Sheep and not under, and the greateſt offence criminal, at thirty Oxen and not above, which were redeemed, by giving for every Ox an hundred Aſſes, and ten for every Sheep.

Heraclides.

It is ſome queſtion among the ancients, who did firſt joyn Oxen together for plowing; ſome affirming that *Ariſteus* firſt learned it of the *Nymphs*, in the Iſland *Co*: and *Diodorus* affirmeth, that *Dionyſius* Son of *Jupiter* and *Ceres* or *Proſerpina*, did firſt of all invent the plow. Some attribute it to *Briges* the *Athenian*; other to *Triptolemus*, *Oſiris*, *Habides* a King of *Spain*; and *Virgil* affirmeth moſt conſtantly, that it was *Ceres*, as appeareth by this verſe;

Prima Ceres ferro mortales vertere terram
Inſtituit, &c.

Auguſtinus.

Whereunto agreeth *Servius*: but I rather incline to *Joſephus*, *Lactantius* and *Euſebius*, who affirm, that long before *Ceres* was born, or *Oſiris*, or *Hercules*, or any of the reſidue, their was a practiſe of plowing, both among the *Hebrews* and *Egyptians*; and therefore as the God of plowing called by the *Romans* *Jugatinus* (becauſe of yoaking Oxen) was a fond aberration from the truth, ſo are the reſidue of their inventions about the firſt man that tilled with Oxen: ſeeing it is ſaid of *Cain* and *Noah*, that they were husbandmen and tilled the earth. The *Athenians* had three ſeveral plow-feaſts which they obſerved yearly, one in *Scirus*, the other in *Rharia*, and the third under *Pelintus*: and they call their mariage-feaſts, plow-ſeaſons, becauſe then they endevoured by the ſeed of man to multiply the world, in procreation of children, as they did by the plow to encreaſe food in the earth.

The *Grecians* had a kind of writing called *Bouſtraphedon*, which began, turned, and ended as the Oxen do in plowing a furrow, continuing from the left hand to the right, and from the right hand to the left again, which no man could read, but he that turned the Paper or Table at every lines end. It is alſo certain, that in ancient time, the leagues of truce and peace were written in an Oxes hide, as appeareth by that peace which was made by *Tarquinius*, betwixt the *Romans* and the *Gabii*, the which was hanged up in the Temple of *Jupiter*, as *Dionyſius* and *Pompeius Sextus* affirm (in the likeneſs of a buckler or ſhield:) and the chief heads of that peace remained legible in that hide, unto their time, and therefore the ancients called the Oxes hide a ſhield, in regard that by that concluſion of peace, they were defended from the wars of the *Gabii*.

A Hiſtory.

And there were certain people called *Homolotti* by *Herodotus*, who were wont to ſtrike up their leagues of peace after war and contention, by cutting an Ox into ſmall pieces, which were divided among the people that were to be united, in token of an inſeparable union. There be that affirm, that a Team or yoak of Oxen, taking ſix or eight to the Team, wil plow every year, or rather every ſeaſon a hyde of ground; that is, as ſome account 20 *Manſa*; or in *Engliſh* and *Germane* account 30 Acres; which hath gotten the name *Jugera* from this occaſion, as *Euſtathius* and *Varinus* report. When *Sychæus* the husband of *Dido*, who was daughter of *Agenor* & ſiſter to *Pygmalion*, wandered to and fro in the world with great ſtore of treaſure, he was ſlain by *Pygmalion* ſecretly, in hope to get his wealth: After which time, it is ſaid, that he appeared to his wife *Dido*, bidding her to ſave her life from her cruell brother; who more eſteemed money then nature, ſhe fled into *Lybia*, taking with her ſome *Tyrians* among whom ſhe had dwelled, and a competent ſum of money; who being come thither, craved of *Iarbas* King of *Nomades*, to give her but ſo much land as ſhe could compaſs in with an Oxes hide, which with much ado ſhe obtained, and then did cut an Oxes skin into ſmal and narrow thongs or liſts, wherewithall ſhe compaſſed in ſo much as builded the large City of *Carthage*, and firſt of all was called the New City, and the Caſtle thereof *Byrſa*, which ſignifieth a Hide.

Clemens.

Giraldus.

Euſtathius alſo reporteth another ſtory to the building of this City, namely that it was called *Carthage* of one of the daughters of *Hercules*, and that when *Eliſa* and the other companions of *Dido* came thither for the foundation of the City, they found an Oxes head, whereupon they were diſcouraged to build there any more, ſuppoſing that *Omen* betokened evill unto them, and a perpetual ſlavery in labour and miſery, ſuch as Oxen live in, but afterward they tryed in another corner of that ground, wherein they found a Horſes head, which they accepted as a good ſignification of riches, honour, magnanimity, and pleaſure, becauſe Horſes have all food and maintenance provided for them. Among the *Egyptians* they paint a Lion for ſtrength, an Ox for labor, and a Horſe for magnanimity and courage, and the Image of *Mithra* which among the *Perſians* ſignifieth the Sun, is pictured in the face of a Lyon holding the horns of a ſtriving Ox in both hands, whereby they ſignifie that the Moon doth receive light from the Sun, when ſhe beginneth to be ſeparated from her beams.

Pliny.

There is in the Coaſts of *Babylon* a Gem or precious ſtone like the heart of an Ox, and there is another called *Sarcites*, which repreſenteth the fleſh of an Ox. The ancients had likewiſe

wiſe ſo great regard of this beaſt, that they would neither ſacrifice nor eat of a labouring Oxe; wherefore *Hercules* was condemned when he had deſired meat of *Theodomantis* in *Dyropia*, for his hungry companion the Son of *Hyla*, becauſe by violence he took from him one of his Oxen and ſlew him. A crowned Oxe was alſo among the *Romans* a ſign of peace; for the Souldiers which kept the Caſtle of *Anathon* neer the river *Euphrates* againſt *Julianus* and his Army, when they yeelded themſelves to mercy, they deſcended from the Caſtle, driving before them a crowned Oxe: from this manifold neceſſity and dignity of this beaſt came the Idolatrous cuſtom of the Heathens, and eſpecially the *Egyptians*, for they worſhipped him inſtead of God calling him *Apis* and *Epaphus*: whoſe choyce was on this ſort. He had on his right ſide an exceeding ſplendent white ſpot, and his horns crooking together like the new Moon, having a great bunch on his tongue, which they call *Cantharus*: neither do they ſuffer him to exceed a certain number of years, or grow very big, for theſe cauſes they give him not of the water of *Nilus* to drink, but of another conſecrated well, which hindereth his growth: and alſo when he is come to his full age, they kill him, by drowning him in another conſecrated well of the Prieſts: which being done, they ſeek with mourning another (having ſhaved their heads) to ſubſtitute in his place, wherein they are never very long but they finde one, and then in a holy Ship, ſacred for that purpoſe, they tranſport and convey him to *Memphis*. And the *Egyptians* did account him a bleſſed and happy man, out of whoſe fold the Prieſt had taken that Oxe-God. He hath two Temples erected for him, which they call his Chambers, where he giveth forth his Auguriſms, anſwering none but children and youths playing before his Temples: and refuſing aged perſons, eſpecially women; and if any not ſacred, happen to enter into one of his Temples, he dyeth for it, and if into the other, it fore-ſheweth ſome monſtrous curſed event, as they fondly imagine.

Marcellus.

Idolatry committed with Oxen and Kyne. Of the choice of Apis.

The manner of his anſwers is privately to them that give him meat, taking it at their hands; and they obſerve with great religion, that when *Germanicus* the Emperour came to ask counſel of him, he turned from him and would not take meat at his hand; for preſently after he was ſlain. Once in a year they ſhew him a Cow, with ſuch marks as he hath, and alway they put him to death upon the ſame day of the week that he was found; and in *Nilus* neer *Memphis*, there was a place called *Phiala*, where were preſerved a Golden and a Silver-diſh, which upon the birth or Calving days of *Apis*, they threw down into the river, and thoſe days were ſeaven; wherein they affirm that never man was hurt by Crocodiles. The *Egyptians* do alſo conſecrate an Oxe to the Moon, and a Cow to *Urania*. It is reported that *Mycerinus* King of *Egypt*, fell in love with his own Daughter: and by violence did raviſh her; ſhe not able to endure the conſcience of ſuch a fact, hanged herſelf: whereupon the King her impure father, did bury her in a wooden Oxe, and ſo placed her in a ſecret place or chamber, to whom daily they offer many odours; but the mother of the maiden did cut off the hands of thoſe Virgins or Women that attended on her Daughter, and would not reſcue her from ſo vile a contempt. There were alſo many other pictures of Oxen, as in *Corcyra* and *Eretria*; and moſt famous was that of *Perillus*, which he made and preſented to *Phalaris* the Tyrant of *Agrigent*, ſhewing him; that if he would torment a man, he ſhould put him into that Oxe ſet over a fire, and his voyce of crying ſhould be like the loughing of a Heifer; which thing being heard of, the Tyrant to ſhew his deteſtation of more ſtrange invented torments then he had formerly uſed, he cauſed *Perillus*, that preſented it unto him, to be put into it alive, and ſo ſetting it over a fire, made experiment of the work upon the workman, who bellowed like a Cow, and was ſo tormented to death for that damnable and dangerous invention; which cauſed *Ovid* to write thus:

A Hiſtory.

Herodotus.
A Hiſtory.

Of the pictures of Oxen.

Et Phalaris tauro violentus membra Perilli
Torruit: infœlix imbuit author opus.

When an Oxe or Cow in ancient time did dye of themſelves, (*Viz.*) if it were an Oxe, they buried him under the walls of ſome City, leaving his horn ſticking viſibly out of the earth, to ſignifie the place of his burial, for when his fleſh was conſumed, they took it up again, and buryed the bones in the Temples of *Venus* in other places: but the body of a dead Cow they caſt into ſome great River neer adjoyning. The Poets have faigned a certain Monſter called *Minotaurus*, having in part the form of a man, and in part the form of a Bull; and they ſay, that *Paſiphae* the Daughter of the *Sun* and wife of *Minos*, King of *Crete*, fell in love with a Bull, and by the help of *Dedalus*, ſhe was included in a wooden Heifer, covered with a Cows hide, and ſo had copulation with the Bull, and ſo came that monſter *Minos* included in a labyrinth; and conſtrained the *Athenians*, who had ſlain his ſon *Androgeus*, to ſend every year ſeven young men, and ſeven maids to be given to that Monſters to feed upon, for he would eat mans fleſh. At laſt *Theſeus* ſon of *Ægeus* King of *Athens*, came into that labyrinth, and ſlew that *Minotaure*, and by the help of *Ariadne* eſcaped out of the labyrinth. Other relate the ſtory in this manner; that when the *Cretenſians* would have expelled *Minos* from his Kingdom; he vowed that whatſoever likeneſs firſt appeared out of the Sea for ſign of victory unto him, he would ſacrifice it to the Gods, if he did enjoy his Regiment: and thereupon a goodly Bull came unto him out of the Sea, wherewithall he was delighted: But after he had recovered his Kingdom in quiet, he kept that Bull in his own hands, and ſacrificed another; and that by this Bull was the *Minotaure* begotten on his wife *Paſiphae*. But the truth is; that when *Minos* was in danger to loſe his Kingdom; one *Taurus*, a valiant Prince and Captain, came with a Navy of

Of the monſter Minotaurus.

of good ſouldiers, and eſtabliſhed him in quiet. Afterward falling in love with *Paſiphae* King *Minos* wife, he lay with her in the houſe of *Dædalus*: which *Dædalus* wrought with the Queen to give him his pleaſure, and that the *Minotaure* was a Monſter in *Crete*, that had the face of an Oxe, and the other members like a man, ſuch an one was ſeen in *Ariſtotles* time. Although other take it for a fiction; becauſe the *Romans* had it pictured in their Enſigns of war, untill *Caius Marius* altered it to an Eagle, which remaineth to this day. *Alciatus* yeeldeth this reaſon, why the *Romans* gave ſuch an arms, to ſignifie that ſecreſie becometh a Captain, and that proud and crafty counſels do hurt the authors of them.

Limine quod cæco obſcura & caligine monſtrum
Gnoſſiacis clauſit Dædalus in latebris:
Depictum Romana phalanx in prælia geſtat,
Semiviroque nitent ſigna ſuperba bove:
Noſque monent debere ducum ſecreta latere
Conſilia, authori cognita techna nocet.

It is reported alſo, that when *Cadmus* went from *Delphos* to *Phocis*, an Oxe did direct him in the way, and was his guide; which Oxe was brought out of the herds of *Pelagon*, having in both his ſides a white ſpot: it muſt needs be underſtood of the Moon, for *Cadmus* flying by night, having the Moon to ſhine upon him (which is Hieroglyphically deciphered by the Oxe,) gave him light and direction to another City. It were endleſs to proſecute the ſeveral ſpeeches, proverbs, alluſions, emblemes, plays, prizes, and hieroglyphicks made upon Oxen; whereby, men and women, Cities, Regions, and People have taken denomination from Oxen; but alſo ſome of the ſtars in the firmament: therefore I will not proceed to thoſe deviſes, but only touch the ſacrifices made with Oxen, and ſo conclude this ſtory.

It cannot be denyed, that the prime inſtitution of ſacrifices, was from, by, and for the Ordinance of God, to teach the world to worſhip him in blood for ſin: which could not be expiated but by the blood of the only immaculate Son and Lamb of God; and therefore I will but remember how corruption polluted that Ordinance, which was purely without idle Ceremonies inſtituted by the everlaſting God; and yet was by mans invention made wretched, horrible, and damnable, through abuſe of the fact, that otherwiſe by divine conſtitution (as appears in holy Scripture) was heavenly, honourable and bleſſed.

To begin therefore with the original of that Heatheniſh and Paganiſh ſacrifice, in ſtead of God the only true and divine Eſſence, to whom all ſacrifice and divine worſhip was due, and whoſe creatures, both Men, Oxen, and all other living and viſible things are; they offered unto all the hoaſts of Heaven, the Sun, and Stars, the Heathen gods, *Jupiter*, *Mars*, *Minerva*, *Pandriſus*, and others: and if the Sacrifice were coſtly and ſumptuous, it was called *Hecatombe*. Now before their Sacrifice they made Prayers, burned Incenſe for odours, preſented *Prothymes* (as they were tearmed) certain preparations and cakes made of Barley and Salt, (called *Ulochytæ*.) After which, the Prieſt turned him ſometimes to the right hand, and ſometimes to the left, and then began to take the griſle hairs growing on the Oxes fore-head betwixt his horns, making a taſte of them, and caſting them in the fire to begin the Sacrifice. Then did he give into the hands of the people ſtanding by, little pots of Wine likewiſe, to taſte for Sacrifice, and then he which killed the beaſt drew his knife, or axe, or cleaver, from the head to the tayl of the beaſt. Now in every Sacrifice they had burning torches, which were lawful for none to carry but for men, and not women; then the Prieſt commanded to kill the Sacrifice, which ſometime they did by knocking him on the head, if the beaſt were to be ſacrificed to Hell, and thoſe that were therein; for they ſacrificed a barren Cow, or a black Sheep to thoſe ghoſts. But if the Sacrifice were for Heaven, and to the powers thereof, they lifted up his head and cut his throat: then put they under him their *Sphagian* veſſels to receive his blood, and when the beaſt was faln down, they flayed off his skin.

Then did the Prieſt or *Flamen* divide the intrails, that ſo he might make his auguriſm (the bowels being proved at the Altar.) Having looked into the bowels, they took out of every gut, member, and part, a firſt fruits, moulded them together in the meal of green wheat-corn, then was it given to the Prieſt, who put thereunto frankincenſe, herbmary, and fire, and ſo burned them all together, which was called a perfect Hoaſt. But if they ſacrificed to the gods of the Sea, then did they firſt of all wave the bowels of the beaſt in the Sea-floods before it was burned. The beſt Sacrifices were fatted and white Oxen or Kine, ſuch as had never been under yoke; for the beaſt uſed to labour was accounted unclean: they never offered in Sacrifice one under thirty days old, nor over five years by the laws of the Prieſts. When the *Spartanes* overcame their enemies by ſtratagem, they ſacrificed to *Mars* an Oxe; but when by open force, they ſacrificed a Cock; for they eſteemed more of an unbloody then a bloody victory. When a man ſacrificed a Cow to *Minerva*, he was bound to Sacrifice a Sheep and an Oxe to *Pandryſus*.

When the *Locrenſians* in a publick ſpectacle would make a Sacrifice, they wanted an Oxe; for which cauſe they gathered together ſo many ſticks of ſmall wood, as made the Image of an Oxe artificially conjoyned together, and ſo ſetting it on fire burned it for an offering: whereupon a *Locrenſian* Oxe, was an Ironical Proverb, for a Sacrifice of no weight or merit. It is alſo reported, that an Heifer being brought to the Altar of *Minerva* to be ſacrificed, did there Calve; wherefore the Prieſts would not meddle with her, but let her go away free; becauſe *Minerva* was the goddeſs of procreation; holding it an impious thing to kill that in Sacrifice which had brought forth a young one at the Altar: to conclude, as *Vegetius* ſaith, that on a time Juſtice was ſo offended with men, becauſe they imbrewed every Altar with the blood of Oxen and Cattel, that therefore ſhe left the Earth, and retired back again to dwell among the Stars: ſo will we in this diſcourſe ceaſe from any further proſecution of the Moral or Natural deſcription of theſe Beaſts, leaving their lawful uſe to the neceſſity of mankinde, and their abuſive idolatrous ſacrifices to him that loveth all his creatures, and will require at mans hand an account of the life and blood of brute beaſts.

Of the CALF.

A Calf, is a young or late enixed Bull or Cow, which is called in *Hebrew*, *Egel*; or *Par*: and ſometimes *Ben-bakar*, the ſon of an Oxe. Yet *Rabbi Solomon*, and *Abraham Ezra*, expound *Egel*, for a Calf of one year old. The *Sarazens* of that word call a Calf *Heſel*. The *Græcians*, *Moſchos*; whereof is derived *Moſcharios*: but at this day they call him *Mouskari*, or *Moſchare*. The *Italians*, *Vitello*; the *French*, *Veau*; the *Spaniards*, *Ternera* of *Teneritudo*, ſignifying tenderneſs; and ſometimes *Bezeron* and *Vezerro*; the *Germans*, *Ein Kalb*, the *Flemmings*, *Kalf*; and the *Latines*, *Vitulus*, of the old word *Vitulor*, ſignifying to be wanton, for Calves are exceedingly given to ſport and wantonneſs; or as other ſuppoſe from the *Greek* word *Italous*, came *Vitulus*; and therefore the Latines do not alway take *Vitulus* for a young or new foaled beaſt, but ſometime for a Cow, as *Virgil Eclog.*

The definition and name.

The etymology of *Vitulus*.

——— Ego hanc vitulam (ne forte recuſes,
Bis venit ad mulctram, binos alit ubere fœtus)
Depono. ———

And this word (like the *Greek*, *Moſchos*) ſignifieth male and female: whereunto by divers Authors both *Greek* and *Latine*, are added divers Epithites by way of explication, both of the condition, inclination, and uſe of this young beaſt; calling it wilde, ripe for the temples, unarmed, weak, ſucklings, tender, wandring, unhorned, and ſuch like. And becauſe the Poets faign that *Io* was turned into a Cow, and that the violet herb was aſſigned by *Jupiter* for her meat; they derive *Viola*, a Violet, from *Vitula* a Calf, by a kinde of *Græcian* imitation.

The Epithites of a Calf.

It is alſo certain that the honor of this young beaſt have given denomination to ſome men, as *Pomponius Vitulus*, and *Vitulus Niger Turamius*, and *Vitellius* was derived from this ſtem or theam, although he were an Emperour. The like may be ſaid of *Moſchos* in *Greek*, ſignifying a Calf; for there was one *Moſchus* a Sophiſt that drank nothing but water, and there was another *Moſchus*, a Grammarian of *Syracuſe*, whom *Athenæus* doth record, was a familiar of *Ariſtarchus*, and alſo of another, a Poet of the *Bucolicks*; and this ſerveth to ſhew us, that the love our Anceſtors bare unto Cattel, appeared in taking upon them their names, and were not aſhamed in thoſe elder times, wherein wiſdom and invention was moſt pregnable, to glory in their herds from which they received maintenance. But to the purpoſe, that which is ſaid of the ſeveral parts of an Oxe and a Cow, belongeth alſo to a Calf; for their Anatomy differeth not, becauſe they are conceived and generated by them, and in them: and alſo their birth, and other ſuch things concerning that, muſt be inquired in the diſcourſe of a Cow.

Varro.

Men named after Calves.

It is reported by an obſcure Author, that if the hoof of a Calf be not abſolved or finiſhed in the Dams belly before the time of Calving, it will dye. And alſo it muſt be obſerved, that the ſame diſeaſes which do infeſt and harm an Oxe, do alſo befall Calves, to their extreme perill: but they are to be cured by the ſame fore-named remedies. And above the reſidue, theſe young beaſts are troubled with worms, which are ingendered by crudity, but their cure is to keep them faſting till they have well digeſted their meat, and then take lupines half ſod, and half raw, beaten together, and let the juyce thereof be poured down his throat; otherwiſe take dry figs and fitches beaten together with *Santonica*, called Lavender-cotten, and ſo put it down the calves throat as aforeſaid, or elſe the fat of a Calf and Marrube with the juyce of Leeks, will certainly kill theſe Evils. It is the manner to regard what Calves you will keep, and what you will make of and kill either for ſacrifice, as in an ancient time, or private uſe, and to mark and name thoſe that are to be reſerved for breed and labour, according to theſe verſes:

A ſecret by the hoof.

The diſeaſes of a Calf.

The cure of worms.

To chooſe Calves for ſtore.

Poſt partum curant, vitulus traducitur omnis,
Et quos aut pecori malunt ſubmittere habendo.
Continuoque notas & nomina gentis inurunt,
Aut aris ſervare ſacris, aut ſcindere terram,
Et campum horrentem fractis invertere glebis.

And all theſe things are to be performed immediately after their weaning: and then in the next place you muſt regard to geld the males, which is to be performed in *June*, or as *Magus* ſaith, in *May*, or at the fartheſt let them not be above a year old; for elſe they will grow very deformed and ſmall: but if you lib them after two years old, they will prove ſtubborn and intractable; wherefore it is better to geld them while they be young ones, which is to be performed not with

The libbing of Calves.

any

Ariſtotle.
Sotion.
Varro.

any knife or iron inſtrument, becauſe it will draw much blood, and indanger the beaſt through pain, but rather with a cloven reed or ſtick, preſſing it together by little and little: but if it happen that one of a year or two years old be to be libbed, then you muſt uſe a ſharp knife, after you have preſſed the ſtones into the cods, and cut them out at one ſtroke, and for ſtanching of the blood, let the cod, and the ends of the veins be ſeared with an hot iron, and ſo the wound is cured as ſoon as it is made.

Palladius.
Sotion.
Collumella.
Varro.
Food for Calves.

And now the time for the effecting hereof, is beſt in the wane of the Moon, either in the Spring or Autumn; but it is good to leave as many of the veins and nerves of the virile member untouched and whole as may be, that ſo he may not loſe any condition of a male, except the power of generation. And if the wound be overmuch given to bleed, lay upon it aſhes with the ſpume of ſilver, which is apt to ſtanch blood in all green wounds; and that day let him not drink, and eat but a very little meat: for three days after give him green tops or graſs, ſoft and eaſie to chew, and at the third days end, anoint the wound with liquid pitch, aſhes, and a little Oyl; which will ſoon cure the ſcar and keep the flies from ſtinging or harming it. If at any time a Cow caſt her Calf, you may put unto her another Calf, that hath not ſuckt enough from his own Dam; and they uſe in ſome Countries to give their Calves Wheat-bran, and Barly-meal, and tender meat; eſpecially regarding that they drink morning and evening. Let them not lye together in the night with their Dam, but aſunder, untill their ſucking time, and then immediately ſeparate them again, unleſs the Cow be well fed when the Calf ſucketh; her ordinary food will yeeld no great tribute of Milk; and for this cauſe you muſt begin to give the Calf green meat betimes. Afterward being weaned, you may ſuffer thoſe young ones to feed with their Dams in the Autumn, which were calved in the Spring. Then in the next place, you muſt regard the taming of the beaſt, being ready for labour, which is expreſſed in the former treatiſe of an Oxe.

Sacrifices of Calves.
Pliny.
Cœlius.
Joſephus.
A wonder.
Monſters of Calves.

The Ancients called *Victoria* by the name of the Goddeſs *Vitula*, becauſe they ſacrificed unto her Calves, which was tearmed a *Vitulation*: and this was uſual for victory and plenty, as is to be ſeen at large in *Giraldus*, *Macrobius*, *Nonius*, *Ovid*, and *Virgil*: but the Heathens had this knowledge, that their Gods would not accept at their hands a lame Calf for a Sacrifice, although it were brought to the Altar; and if the tail of the Calf did not touch the joynts of his hinder legs, they did not receive him for Sacrifice. And it is ſaid of *Æmilius Paulus*, when he was to go againſt the *Macedonians*, he ſacrificed to the Moon in her declination eleven Calves. It is very ſtrange, that a Calf being ready to be ſacrificed at the Temple of *Ieruſalem*, brought forth a Lamb, which was one fore-ſhewing ſign of *Ieruſalems* deſtruction. But *Ariſtotle* declareth, that in his time, there was a Calf that had the head of a childe; and in *Luceria* a Town of *Helvetia*, was there a Calf which in his hinder parts was a Hart.

Nic. Villagag.

When *Charles* the fifth, went with his Army into *Africk*, and arrived at *Larghera*, a Noble City of *Sardinia*, there happened an exceeding great wonder; for an Oxe brought forth a Calf with two heads; and the woman that did owe the Oxe, preſented the Calf to the Emperor: and ſince that time I have ſeen the picture of a more ſtrange beaſt calved at *Bonna*, in the Biſhoprick of *Colen*, which had two heads; one of them in the ſide not bigger then a Hares head, and two bodies joyned together; whereof the hinder parts were ſmooth and bald, but the tail black and hairy; it had alſo ſeven feet; whereof one had three hoofs: this Monſter lived a little while, and was brought forth in *Anno* 1552. the 16. day of *May*, to the wonder and admiration of all them, who either knew the truth, or had ſeen the picture.

The fleſh of Calves.

Butchers are wont to buy Calves for to kill, and ſell their fleſh; for in all creatures, the fleſh of the young ones are much better then the elder, becauſe they are moiſt and ſoft, and therefore will digeſt and concoct more eaſily: and for this cauſe Kids, Lambs, and Calves, are not out of ſeaſon in any time of the year; and are good from fifteen days to two months old, being ornaments to the Tables of great Noble men; which cauſed *Fiera* to make this *Diſtichon*:

Aſſiduos habeant vitulum tua prandia in uſus,
Cui madida & ſapida juncta tepore caro eſt.

And principally the *Germans* uſe the chawthern, the head, and the feet, for the beginning of their meals; and the other part either roaſted, or baked, and ſometime ſod in broath, and then buttered, ſpiced and ſauced, and eaten with Onyons.

Pliny.
Of the medicines.
Marcellus.
Pliny.
Nicander.
Raſis.
Marcellus.

The Medicines ariſing from this beaſt, are the ſame that come from his Sires before ſpoken of, and eſpecially the fleſh of a Calf doth keep the fleſh of a new wound, (if it be applyed thereunto) from ſwelling, and being ſodden, it is precious againſt the bitings of a mans teeth: and when a mad Dog hath bitten a man or a beaſt, they uſe to pare the wound to the quick; and having ſodden Veal mingled with the ſewet and heel, they lay ſome to the wound, and make the patient drink of the broath: and the ſame broath is ſoveraign againſt all the bitings of Serpents. The horns of a Calf ſod ſoft, are good againſt all intoxicate poyſon, and eſpecially Hemlock. The powder of a Calves thigh drunk in Womans Milk, cureth all filthy running Ulcers; and out of the brains of a Calf they make an Oyntment, to looſen the hardneſs of the belly. The marrow ſoftneth all the joynts, driveth away the bunches ariſing in the body; having an operation to ſoften, fill, dry and heat. Take Oyl, Wax, Ruſt, and the marrow of a Calf, againſt all bunches in the face: and Calves marrow with an equal quantity of Whay, Oyl, Roſe-cake and an Egge, do ſoften the hardneſs of the cheeks and eye-lids, being laid to for a plaiſter, and the ſame mixed with Cummin, and infuſed into the ears, healeth the pains of them: and alſo eaſeth the Ulcers in the mouth.

The marrow with the ſewet compoſed together, cureth all Ulcers and corruptions in the Secrets *Pliny.* of Men and Women. The Fat pounded with Salt, cureth the Louzy evill, and likewiſe the ulcerous ſores in the head. The ſame mixed with the fat of a Gooſe, and the juyce of Baſil or wilde Cummin, *Marcellus.* and infuſed into the ears, helpeth deafneſs and pains thereof. The fat taken out of the thigh of a Calf, and ſod in three porringers of water, and ſupped up, is good for them that have the Flux: and the dung of a Calf fryed in a pan, laid to the Buttocks and Secrets, doth wonderfully cure the Bloodyflix: alſo laid to the reins, provoketh Urine; and ſod with Rue, cureth all the inflamations *Leonellus.* in the ſeat of a man or woman. The Sewet of a Calf with *Nitre*, aſſwageth the ſwelling of the *Pliny.* cods, being applyed to them like a plaiſter: and the Sewet alone, doth cure the peeling of the Nails. The Liver with Sage leaves cut together, and preſſed to a liquor, being drunk, eaſeth the pain in the ſmall of the Belly. The gall mingled with powder of a Harts-horn, and the Seed of Marjoram, cureth Leproſies and Scurfs; and the gall alone anointed upon the head, driveth away nits. The milt of a Calf is good for the milt of a man, and for Ulcers in the mouth; and glew made of his ſtones, as thick as Hony, and anointed upon the leprous place, cureth the ſame, if it be ſuffered to dry thereupon.

With the dung of Calves they perfume the places which are hurt with Scorpions; and the aſhes of this dung with Vinegar, ſtayeth bleeding: *Marcellus* magnifieth it above meaſure, for the cure of the Gout, to take the fime of a Calf which never eat graſs, mixed with lees of Vinegar; and alſo for the deafneſs of the ears, (when there is pain withall) take the Urine of a Bull, Goat, or Calf, and one third part of Vinegar well ſod together, with the herb *Fullonia*, then put it into a flagon with a ſmall mouth, and let the neck of the Patient be perfumed therewith.

Of the ſuppoſed *Beaſt* CACUS.

THere be ſome of the late Writers, which take the *Cacus* ſpoken of by *Virgil* in his eight Book of *Æneids*, to be a wilde beaſt, which *Virgil* deſcribeth in theſe words:

> *Hic ſpelunca fuit, vaſto ſubmota receſſu:*
> *Semihominis Caci: facies quam dira tegebat,*
> *Solis inacceſſam radiis, ſemperque recenti*
> *Cæde tepebat humus, foribuſque affixa ſuperbis*
> *Ora virum triſti pendebant pallida tabo.*
> *Huic monſtro Vulcanus erat pater: illius atros*
> *Ore vomens ignes magna ſe mole ferebat.*
> ——*Nequeunt expleri corda tuendo:*
> *Pectora ſemiferi atque extinctos faucibus ignes;*

That is, *Cacus* was half a beaſt and half a man, who had a cave in the earth againſt the Sun, his Den repleniſhed with the heads of men, and he himſelf breathing out fire, ſo that the earth was warmed with the ſlaughter of men ſlain by him, whoſe ſlaughter he faſtened upon his own doores, being ſuppoſed to be the ſon of *Vulcan*. And there be ſome that affirm this *Cacus*, to have waſted and depopulated all *Italy*; and at length when *Hercules* had ſlain *Geryon*, as he came out of *Spain* through *Italy* with the Oxen which he had taken from *Geryon*, *Cacus* drew divers of them into his cave by their tails: but when *Hercules* miſſed daily ſome of Cattel, and knew not which way they ſtrayed, at laſt he came to the den of *Cacus*: and ſeeing all the ſteps ſtand forward, by reaſon the cattel were drawn in backward, he departed; and going away, he heard the loughing of the Oxen for their fellows, whereby he diſcovered the fraud of *Cacus*: whereupon he preſently ran and took his club, the Monſter being within his cave, cloſed up the mouth thereof with a wonderful great ſtone, and ſo hid himſelf for fear: but *Hercules* went to the top of the Mountain, and there digging down the ſame, untill he opened the cave, then leaped in ſuddenly and ſlew the Monſter, and recovered his Oxen.

But the truth is, this forged *Cacus* was a wicked ſervant of *Evander*, which uſed great robbery in the Mountains, and by reaſon of his evill life was called *Cacus*; for *Cakos* in *Greek* ſignifieth evill. He was ſaid to breath forth fire, becauſe he burned up their corn growing in the fields, and at laſt was betrayed of his own Siſter; for which cauſe ſhe was deified, and the Virgins of *Veſta* made Sacrifice to her: and therefore it ſhall be idle to proſecute this fable any farther (as *Albertus Magnus* doth) it being like the fable of *Alcida*, which the Poets faign was a Bird of the earth, and being invincible burned up all *Phrygia*, and at laſt was ſlain by *Minerva*.

Of the *CAMEL.*

Of the name.

Artemidorus.
The Etymologie of the word.
Horus.

ALthough there be divers ſorts of Camels,according to their ſeveral Countries; yet is the name not much varied, but taken in the general ſenſe of the denomination of every particular. The *Hebrews* call it *Gamal*; the *Chaldeans, Gamela*; and *Gamele*: the *Arabians*, *Gemal*: *Gemel Alnegeb*: *Algiazar*. The *Perſians*, *Schetor*; the *Saracens*, *Shymel*; the *Turks* call a company of Camels traveling together, *Caravana*. The *Italians* and *Spaniards* call a Camel, *Camello*; the *French*, *Chameau*; the *Germans*, *Ramelthier*; all derived of the *Latine*, *Camelus*; and the *Greek*, *Camelos*. The *Illyrians*, call it *Vuelblud*: and the reaſon of the name *Camelos*, in *Greek*, is, becauſe his burden or load is laid upon him kneeling or lying, derived (as it may ſeem) of *Camptein merous*, the bending of his knees, and ſlowneſs of pace; wherefore a man of a ſlow pace, was among the *Egyptians* deciphered by a Cameſ. For that cauſe, there is Town in *Syria* called *Gangamela*; that is, the houſe of a Camel, erected by *Darius* the Son of *Hyſtaſpis*, allowing a certain proviſion of food therein for wearied and tyred Camels. The Epithets given to this beaſt are not many among Authors, for he is tearmed by them rough, deformed, and thirſting; as *Iuvenal.*

Deformis poterunt immania membra Cameli.

And *Perſius* in his fifth Satyre ſaith;

Tolle recens primus piper è ſitiente Camelo.

The kindes of Camels.

The generation of *Bactrian* Camels.

There are of them divers kindes,according to the Countries wherein they breed: as in *India*,in *Arabia*,and in *Bactria*: All thoſe which are in *India*,are ſaid by *Didymus* to be bred in the Mountains of the *Bactrians*,and have two bunches on their back, and one other on their breaſt, whereupon they lean: they have ſometimes a Bore for their Sire,which feedeth with the flock of ſhe-Camels; for as Mules and Horſes will couple together in copulation,ſo alſo will Bores and Camels: and that a Camel is ſo ingendered ſometimes, the roughneſs of his hair like a Bores or Swines, and the ſtrength of his body, are ſufficient evidences; and theſe are worthily called *Bactrians*, becauſe they were firſt of all conceived among them,having two bunches on their backs; whereas the *Arabian* hath but one. The colour of this Camel is for the moſt part brown, or puke; yet there are herds of white ones in *India.*

The parts and colour of theſe Camels.

Ptolemeus Lagi brought two ſtrange things into *Egypt*, a black Camel; and a man which was the one half white, and the other half black in equal proportion; the which cauſed the *Egyptians* to wonder and marvail at the ſhape and proportion of the Camel, and to laugh at the man: whereupon it grew to a Proverb, a Camel among the *Egyptians*, for a matter fearful at the firſt, and ridiculous at the laſt.

The ſeveral parts of a Camel.
Pliny.

The head and neck of this beaſt is different in proportion from all others; yet the *Ethiopians* have a beaſt called *Nabim*, which in his neck reſembleth a Horſe, and in his head a Camel. They have not teeth on both ſides, although they want horns, (I mean both the *Arabian* and *Bactrian* Camel:) whereof *Ariſtotle* diſputeth the reaſon, in the third Book of the parts of creatures, and fourteenth chapter. Their necks are long and nimble, whereby the whole body is much relieved; and in their neck toward the neather part of the the throat, there is a place called *Anbar*, wherein a Camel doth by ſpear or ſword, moſt eaſily receive his mortal or deadly wound.

Silvaticus.

Ariſtotle.
Pliny.

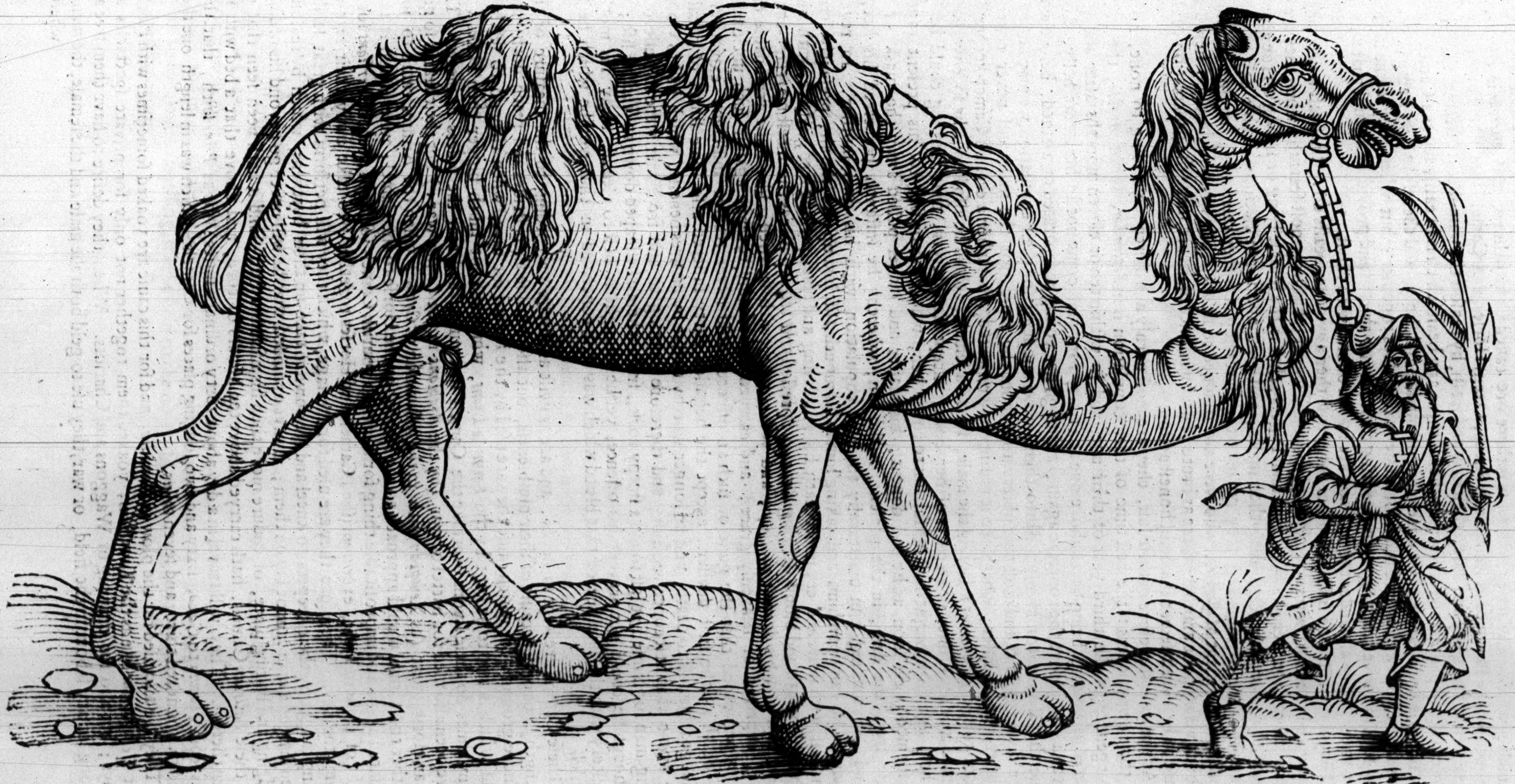
His belly is variable, now great, now ſmall like an Oxes; his gall is not diſtinguiſhed within him like other beaſts, but only carryed in great veins,and therefore ſome have thought he had none, and aſigned that as a cauſe of his long life. Betwixt his thighes he hath two udders, which have four ſpeans depending from them like a Cow. His genital part is confected, and ſtandeth upon a ſinew, inſomuch as thereof may a ſtring be made, for the bending of the ſtrongeſt bow. The tail is like the tail of an Aſs, hanging down to their knees, they have knees in every leg, having in their former leg three bones, and in the hinder four. They have an ancle like an Oxes, and very ſmall buttocks, for the proportion of their great body: their foot is cloven, but ſo, that in the under part it hath but two fiſſures or clefts, opening the breadth of a finger, and in the upper part four fiſſures or clefts, opening a little,and having a little thing growing in them,like as is in the foot of a Gooſe: The foot it ſelf is fleſhy like a Bears, and therefore they are ſhod with leather when they travail, leſt the gauling of their feet cauſe them to tire.

Avicenna affirmeth, that he had ſeen Camels with whole feet, like a Horſes, but their feet (although fleſhy) are ſo tyed together with little lungs that they never wear; and their manner of going or pace is like a Lyons, ſo walking as the left foot never out-goeth the right, whereas all other beaſts change the ſetting forward of their feet, and lean upon their left feet while they remove their right; but theſe alter ſtep after ſtep, ſo as the left foot behinde, followeth the right before, and the hinder foot followeth the left before. Thoſe Camels which are conceived by Bores are the ſtrongeſt, and fall not ſo quickly into the myre as other, although his load be twice ſo heavy.

The food of Camels.

Camels love graſs (called *Schœnanthi*) and eſpecially Barley, which they eat up wonderful greedily untill all be in their ſtomach, and then will they chew thereupon all the night long: ſo that the greatneſs of their belly to lodge their meat in before concoction is better then the

benefit



Silvaticus.
Paul Venet.
Philoſtratus.
Cælius.
Their drink muſt not be clear.

benefit of their upper teeth, becauſe he can ruminate and chaw it ſo often as he pleaſeth. There is a certain herb, which hath a ſeed like a myrtle ſeed, that is poyſon to worms, and this ſeed is food for Camels; wherewith they grow fat. It is therefore called Camel-thorn, and *Aſtergar* in the *Arabian* tongue. In the Province of *Aden*, both Sheep, Oxen, Horſes, and Camels, eat a kinde of fiſh, and them better being dry and ſtale, then new and freſh, by reaſon the immoderate heat in that region burneth up all paſture and fruits: neither is there any beaſt which is ſo eaſily fed as a Camel. They will not drink of clear or clean water, but of muddy and ſlimy, and therefore they ſtamp in it with their feet. They will endure thirſt for three or four days together; but when they come to drink, they ſuck in above meaſure, recompenſing their former thirſt, and providing againſt that which is to come; and of all kindes the *Bactrians* are leaſt troubled with thirſt.

Their procreation.

They ſtale from one ſide to another, otherwiſe then any other beaſts do: this beaſt is very hot by nature, and therefore wanton and full of ſport and wrath; braying moſt fearfully when they are angred They engender like Elephants and Tygers; that is, the female lying or ſitting on the ground, which the male imbraceth like other males; and continue in copulation a whole day together. When they are to ingender, they go unto the ſecreteſt places they can finde; herein excelling in modeſty the ancient *Maſſagetes*, who were not aſhamed to lie with their wives in the open field, and publick view of one another, where as brute beaſts by inſtinct of nature, make the procreation of their kinde to be a moſt ſecret ſhameful honeſt action.

Cœlius.
Avicen.

At the time therefore of their luſt, they are moſt unruly and fierce, yeelding to none, no not to their own keepers: the beſt time of their copulation is in *September*, for in *Arabia*, they begin to ingender in the third year of their age, and ſo within ten or eleven moneths after ſhe is delivered of young, being never above one at a time, for twins come not in her great belly; ſo ſhe goeth a year before ſhe conceive again, although her young be ſeparated or weaned, before which time they do not commonly. Unto their former modeſty for their copulation, we may adde another divine inſtinct and moſt true obſervation about the ſame, for the male will never cover his mother, or his ſiſter; wherefore it is ſincerely reported, that when a certain Camel-keeper (deſirous to try this ſecret) having the male, ſon to a female, which he alſo kept, he ſo covered the female-mother-Camel in all parts of her body, except her ſecrets, that nothing could be ſeen of her, and ſo brought her luſtful ſon to cover her; which according to his preſent rage he performed. As ſoon as he had done it, his maſter and owner pulled away the mask or diſguiſe from the dam, in the preſence of the ſon; whereby he inſtantly perceived his keepers fraud, in making him unnaturally to have copulation with his own mother. In revenge whereof he ran upon him, and taking him in his mouth, lift him up into the air, preſently letting him fall with noiſe and cry underneath his murdering and man-quelling feet; where, with unappeaſeable wrath and blood-deſiring livor, he preſſed and trod to pieces the inceſt marriage-cauſer, twixt him and his deareſt mother; and yet not herewith ſatisfied, like ſome reaſonable creature, deprived of heavenly grace, and carryed with deadly revenge againſt ſuch uncleanneſs, being perſwaded that the guilt of ſuch an offence could never receive ſufficient expiation by the death of the firſt deviſer, except the beguiled party ſuffered alſo ſome ſmart of penalty; adjudged himſelf to death, and no longer worthy to live by natures benefit, which had ſo violated the womb that firſt conceived him; and therefore running to and fro, as it were to finde out a hang-man for himſelf, at laſt found a ſteepy rock, from whence he leaped down to end his life; and although he could not prevent his offence, yet he thought it beſt to cleanſe away his mothers adultery with the ſacrifice of that blood which was firſt conceived in that wombe which he had defiled.

The pace and agility of Camels.
Herodotus.
Of the labour and employment of Camels.
Pliny.

Theſe Camels are kept in herds, and are as ſwift as Horſes, according to the meaſure of their ſtrength, not only becauſe of their nimbleneſs, but alſo becauſe their ſtrides and reach doth gather in more ground: for which cauſe they are uſed by the *Indians* for race, when they go to fetch the gold which is ſaid to be kept by the *Formicæ Lyons*, which are not much bigger then Foxes: yet many times do theſe Lyons overtake the Camels in courſe, and tear the riders in pieces. They have been alſo uſed for battel or war (by the *Arabians* in the *Perſian* war:) but their fear is ſo great of an Horſe, that (as *Xenophon* ſaith in the inſtitution of *Cyrus*) when the Armies came to joyn, neither the Camel would approach to the Horſe, or the Horſe to the Camel; whereupon it is accounted a baſe and unprofitable thing for a man to nouriſh Camels for fight; yet the *Perſians* for the fight of *Cyrus* in *Lydia*, ever nouriſhed Camels and Horſes together, to take away their fear one from another. Therefore they are uſed for carriage, which they will perform with great facility, being taught by their keepers to kneel and lye down to take up their burthens, which by reaſon of their height a man cannot lay on them; always provided, that he will never go beyond his ordinary lodging and baiting place, or endure more then his uſual burthen; and it hath been ſeen that one of theſe *Bactrian* Camels, hath carryed above ten Minars of corn, and above that a bed with five men therein. They will travel in a day above forty ordinary miles; for as *Pliny* ſaith, that there was from *Thomna* to *Gaza*, ſixty and two lodging places for Camels, which was in length one thouſand five hundred thirty and ſeven miles.

Diodorus.

They are alſo uſed for the plow in *Numidia*, and for this cauſe are yoaked ſometimes with Horſes, but *Heliogabalus* like as the *Tartarians*, yoaked them together not only for private ſpectacles and plays; but alſo for drawing of Waggons and Chariots. When they deſire to have them free and ſtrong for any labour in the field, or war, they uſe to geld both the male and the female, the manner whereof is in this ſort. The male by taking away his ſtones, and the female by ſearing her privy parts within the brim and laps thereof with a hot iron, which being ſo taken away, they can never more join in copulation; and theſe are mote patient in labour and thirſt, and likewiſe better endure the extremity of ſand in thoſe parts, having this skill, that if the miſts of rain or ſand, do never ſo much obſcure the way from the rider, yet doth ſhe remember the ſame without all ſtaggering.

Pliny.

The urine of this beaſt is excellent for the uſe of Fullers; of the hair called *Buber*, or Camels Wool, is cloth made for Apparel, (called *Camelotta*, or Camels hair,) and the hair of the *Caſpian* Camels is ſo ſoft, that it may be therein compared with the ſofteſt *Mileſian* Wool, whereof their Princes and Prieſts make their garments: and it is very probable, that the garments of Saint *John Baptiſt* was of this kinde. In the City of *Calacia*, (under the great *Cham*) and in the province of *Egrigaia*, is cloth made of the hair of Camels, and white wool (called *Zambilotti*) ſhewing moſt gloriouſly; but the beſt of this kinde are in the land of *Gog* and *Magog*.

Of the uſe of their natural parts.
Ælianus.
Baytius.

It is forbidden in holy Scripture to eat a Camel, for although it chew the cud, yet is not the hoof altogether cloven: and beſides, the fleſh thereof is hard of digeſtion, and the juyce thereof very naught, heating the body above meaſure; yet many times have men of baſe condition and mindes eaten thereof, as in *Arabia*, and in the Kingdom of *Fezzen*; and *Atheneus* affirmeth, that the King of *Perſia* was wont to have a whole Camel roſted for his own table at his royal feaſtings: and *Heliogabalus* likewiſe cauſed to be prepared for himſelf the heels of Camels, and the ſpurs of Cocks and Hens, pulled of alive, and whole Oſtriches and Camels; ſaying, (though falſly) that God commanded the *Jews* to eat them. Camels milk is wholeſome for meat, becauſe it is thinneſt of all other, and becauſe thereof it breedeth fewer obſtructions, and is good for ſoftning of the belly. For the natural diſpoſition of this beaſt: it is partly already related, whereby the ſingular uſe thereof may be collected: yet there are certain proverbs and ſtories thereof farther expreſſing their qualities.

The fleſh of a Camel not to be eaten.
Diodorus.
Leo Afric.
Lampridius.

It is diſdainful, and a diſcontented creature: whereupon it it is faigned of the Poets, that they beſought *Iupiter* to give them Horns, with which Petition he was ſo offended, that he took from them their ears, and therefore in that, thoſe are reproved, which are ſo far in love with other things they want, that they deſerve to loſe the things they have. Likewiſe the wantonneſs thereof appeareth by the proverb of a dancing Camel, when one taketh upon him more then his skill will ſerve to diſcharge: yet hath not this beaſt been free from ignominy; for when the Emperor *Iuſtinian* had found the Treaſon of *Arſaces* the *Armenian*, he cauſed him to ride through the City upon a Camel, to be ſhamed for his offence, although in former times it was a kinde of triumph and honor to be carryed upon a Camel, led through a City.

A hiſtory of their natural diſpoſition.
Cælius.
Cælius.
Solinus.

In the lake of *Aſphaltites*, wherein all things ſink that come in it, many Camels and Buls ſwim through without danger. The *Arabians* ſacrifice a Camel to the unknown God, becauſe Camels go into ſtrange Countries, and likewiſe ſacrifice their Virgins before they be marryed, becauſe of the chaſtity of this beaſt, and the *Sagarentes* with great obſervance, keep the combat of Camels, in the honour of *Minerva*.

Sacrifices of Idolatry.
Gyraldus.

Theſe Beaſts are hated of Horſes and Lyons, for when *Xerxes* travailed over the river *Chidorus*, through *Pæonia* and *Creſtonia*; in the night time the Lyons deſcended into the camp, and touched no creatures therein, except the Camels, whom they deſtroyed for the moſt part.

Ælianus.
Of the fear and hatred of Camels.

A Camel will live in the ſoil wherein he is bred, fifty or an hundred years; and if he be tranſlated into any other Nation, he falleth into madneſs or ſcabs, or the gowt, and then they live not above thirty years. There is a kinde of graſs that groweth by the high ways in the Countrey of *Babylon*, that killeth Camels when they taſte thereof.

Herodotus.
Solinus.
Porphyrius.
The length of their life.

There are alſo medicinal properties in Camels, for by reaſon he is of a hot and dry temperament: if a man infected with poyſon, be put into the warm belly of a Camel newly ſlain, it looſeneth the power of the poyſon, and giveth ſtrength to the natural parts of the body. The fat taken out of the bunch and perfumed, cureth the Hemmorhoides; and the blood of a Camel fryed, is precious againſt the bloodyflix, or any other looſeneſs of the belly; the brain dryed and drunk with Vinegar, helpeth the Falling-evill; the gall drunk with Hony, helpeth the Quinzy: and if it be laid to the eye-brows and forehead, ſod in three cups of the beſt Hony, it cureth the dimneſs of the eyes, and avoideth the fleſh that groweth in them: and if the hairs of a Camels tail be wound together like a ſtring, and tyed to the left arm, (*Pliny* affirmeth) they will deliver one from a quartan Ague.

Pliny.
The medicines in the bodies of Camels.
Ponzettus.
Cardinalis.
Avicenna.

The milk of Camels newly delivered of young, helpeth obſtructions, and all ſhortneſs of breath; and is alſo good againſt the Dropſie and hardneſs of the milt. Alſo when one hath drunk poyſon, this is a good Antidote, and amendeth the temper of the body. The fime of Camels dryed to duſt with Oyl, will criſpe and curl the hair, and ſtay bleeding at the noſe; and the ſame hot, is good againſt the Gowt.

Marcellus.

The urine is moſt profitable for running ſores, there have been which have preſerved it five years together, and uſed againſt hardneſs of the belly; waſhing alſo therewith ſore heads: and it helpeth one to the ſenſe of ſmelling, if it be held to the noſe; likewiſe againſt the Dropſie, the Spleen, and the Ring-worm.

Of the *Camel* DROMEDARY.

The deſcription of a Dromedary, and the Etymology of his name.

Didymus. *Iſidorus.* A Hiſtory.

A Camel is called of the *Grecians*, *Dromos*, by reaſon of the ſwiftneſs of his race; and alſo an *Arabian* Camel, which hath all things common with the former *Bactrian* Camel, except, firſt in the ſhape, for ſhe hath but one bunch on the back, and many Nations, as the *Italians*, *French*, *Germans*, and *Spaniards*, uſe the word *Dromedary*, only without addition; the *Grecians* never name it without the addition of a Camel. Therefore this is a kinde of Camel of leſs ſtature, but much ſwifter; for which cauſe it is derived from running. It cheweth the cud like a Sheep, and the other Camel: the *French* King had ſent him from the great *Turk* two of theſe, white coloured; and I my ſelf have ſeen one of them, being fifteen cubits high, wanting ſome nine inches, and about ſix cubits in length, having the upper lip cloven in the middle like a Hare, and two broad nails in his feet, which in the upper part appeared cloven, but underneath they were whole and fleſhy without diviſion, and round in proportion like a pewter diſh: It hath alſo a hard bunch on its breſt, whereon it leaned, ſitting down and riſing: and alſo upon either knee one: theſe are ſaid to live fifty years; but the *Bactrians* an hundred: they were uſed for drawing of Chariots, and great preſents for Princes; and when they go to war, every one carryeth two Archers, which ſit upon him, back to back, ſhooting forth their darts, one againſt the front of the enemy, and the other againſt the proſecutors and followers.

Ælianus.

Diodorus.

They are able to go an hundred miles in a day, bearing a burthen of fifteen hundred weight; yea ſometimes two thouſand, bending upon his knee to take up his load and rider, which received, he riſeth up again with great patience, being obedient and ruleable; yet kicking when he is angry, which is very ſeldom: and therefore *Terence* did ſignificantly deſcribe a good ſervant by the name of *Dromo*, derived from *Dromas*, a runner: And for the concluſion of the Hiſtory of theſe two ſorts of Camels, I will here adde the relation and memorable obſervations of *Iohannes Leo Afer*, in his ninth Book of the deſcription of *Africk*, in his own words following.

A relation of *Joh. Leo Afer*, out of his ninth Book, of the deſcription of *Africk*.

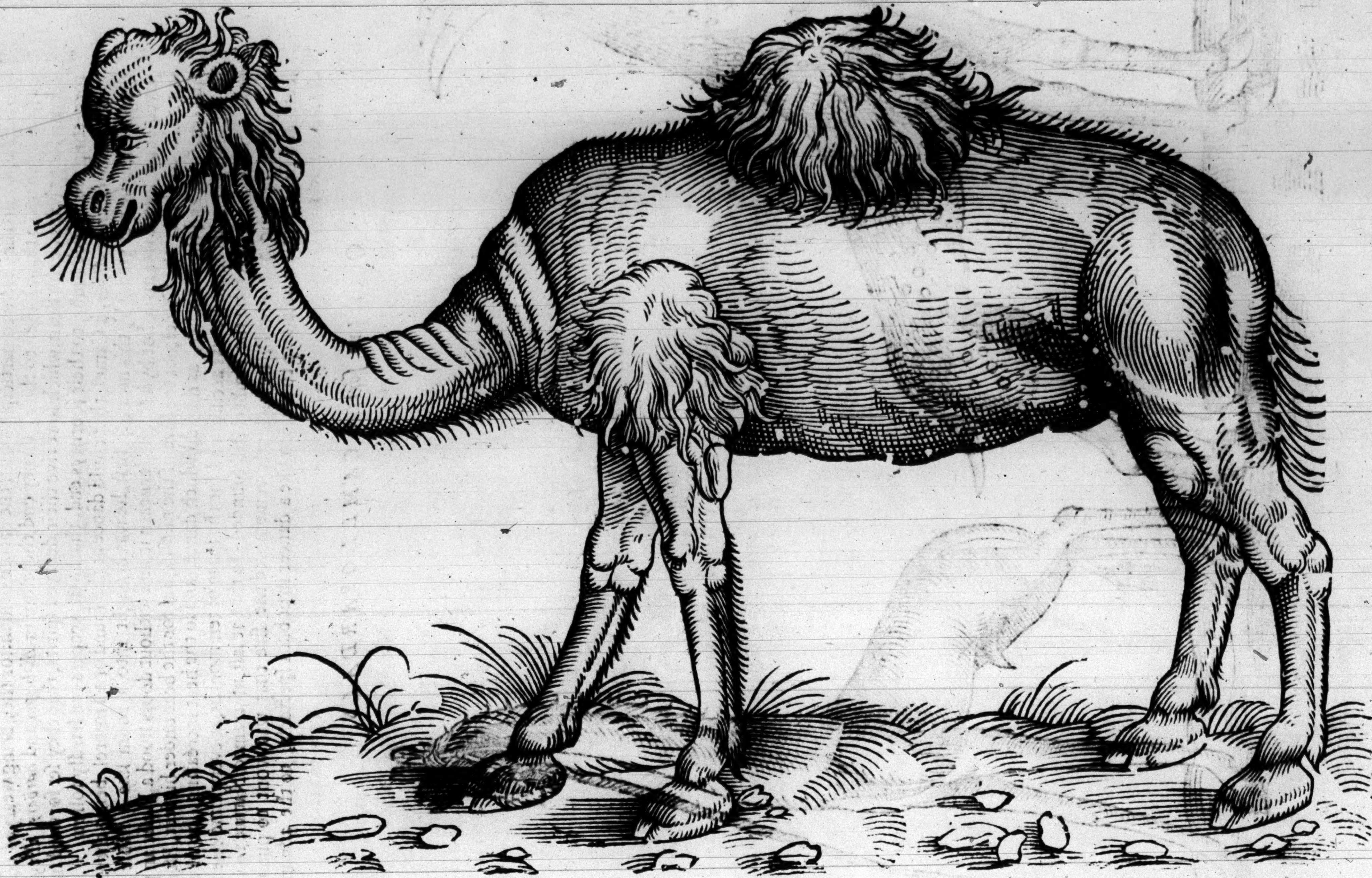
“ A Camel is a gentle and pleaſant tame beaſt, whereof there are plenty in *Africa*, eſpecially in
“ the Deſerts of *Lybia*, *Numidia*, and *Barbary*: by which *African* eſtimate their own wealth; for
“ when they contend who is the richeſt Prince or Noble-man among them, they ſay he was worth,
“ or hath ſo many thouſand Camels, and not ſo many thouſand Crowns. And he that hath Ca-
“ mels, liveth among them like a Gentleman; becauſe he can at his pleaſure travel into the De-
“ ſerts, and fetch Merchandize from far, which the greateſt Prince or Noble-man cannot without
“ them, by reaſon of the drought of thoſe places. And of theſe kinde of creatures, there are to
“ be ſeen in all parts of the world, both in *Aſia*, *Africk*, and *Europe*; for the *Tartarians*, *Cordi-*
“ *ans*, *Dalemians*, and *Turconians* uſe them in *Aſia*; and the *Turkiſh* Princes convey all their carriages
“ upon them in *Europe*: Likewiſe do all the *Arabians* in *Africk*. But it muſt be obſerved, that the
“ *African* Camels are much more worth then the *Aſian*, for they can endure travel for forty and
“ fifty days together, with very little or no meat, except ſometimes in the evening, when they are
“ unloaded, they go to the hedges, thorns, and other green places, and there eat any ſmall thing
“ they meet withall, as leaves and ſuch like, wherewith they remain ſatisfied, whereas the
“ *Aſians* can perform no ſuch journey, except they be kept fat and well fed: and it hath been
“ proved by good experience, that one of the *Africans* hath travelled fifty days without
“ meat, firſt wearing away the fat in their bunchy back, then about their skin and breaſt,
“ and laſtly, about their ribs, never giving over till it was not able to bear one hundred
“ weight.

“ But the *Aſians* muſt alway carry provender to ſuſtain their beaſts, never travelling but they
“ have one Camel loaden with meat, for the other loaden with carriage, and ſo indure a double
“ charge: and when the *Africans* go to any Marts or Fairs being to return empty and unloaded, they
“ take no thought for their Camels food. Of theſe Camels there be three kindes, one of them cal-
“ led *Huginn*, (being broad and tall) and therefore apt to bear packs and burthens, but not before
“ they be four year old, and after their ordinary load is one thouſand weight of *Italian* meaſure,
“ being taught by the jerking of a ſmall rod, on the breſt or knees, to lie down for their burthens,
“ and afterward to riſe up again. And the *Africans* do uſe to geld their Camels, reſerving but one
“ male for the covering of ten females.

“ Another kinde of their Camels they call *Becbetos*, ſuch as have two bunches, one for burthen,
“ and the other for a man to ride upon: and the third ſort are called *Ragnabil*, which are of lower
“ ſtature and leaner bodies then the reſidue, unfit for burden and therefore are uſed for the ſaddle,
“ by all the Noblemen of *Numidia*, *Arabia*, and *Lybia*: being able to run an hundred miles a day, and
“ performing long journeys with little or no provender: for the King of *Tombuto* being to ſend to
“ *Dara*, or *Selmeſſa*. (which is diſtant from his Court nine hundred miles) his meſſenger performeth
“ it upon one of theſe *Ragnabils*, within the ſpace of eight days.

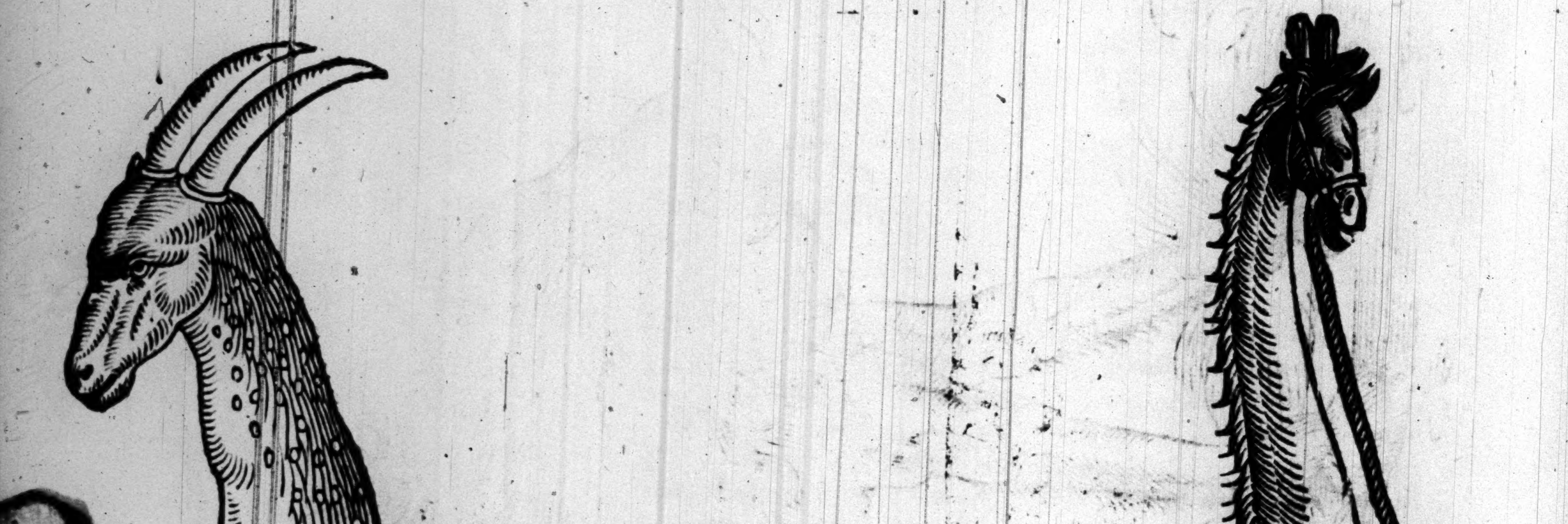
“ In the beginning of the Spring they are moſt frolick and unruly, becauſe then they incline to ge-
“ neration: at which time, they rage and fall upon many that come unto them, and eſpecially thoſe
“ from whom they have received blows, remembring at that time, and requiting their former inju-
“ ries, upon ſuch as wronged them, whom if they can take in their mouth, they lift them up into

“ the



“ the air, and then caſt them down again under their feet, and tread upon them, in which diſtem-
“ pered venereous fury, they remain forty days.
“ They can eaſily endure thirſt, five, nine, or fifteen days in neceſſity; neither will their keeper
“ give them drink at three days thirſt, for fear to harm them. As theſe Camels are pleaſant and
“ profitable; ſo alſo they ſeem to participate with the nature of man: for they being wearyed, no ſpur
“ or ſtroke can make them haſten to their journey end, therefore in *Æthiopia* and *Barbary*, they ſing
“ certain ſongs behinde the Beaſt, which ſo revive their decayed ſpirits, that they ſet forward ſo faſt,
“ forgetting their tyred limbs, to their journeys end, that their keepers can hardly follow.
“ I have alſo ſeen in *Alcair*, a Camel, that could dance at the ſound of a Timbrel, being thereunto
“ taught when he was young by this means; firſt, he was brought into a room like a ſtable, the
“ pavement whereof was made hot by a fire underneath it, and without doors ſtood a Muſician play-
“ ing on his Timbrel; the Camel, not for love of the muſick, but for the heat under his feet, lifted up
“ firſt one foot, and then another, as they do which dance, and ſo the heat increaſing, he likewiſe
“ did lift up faſter, whereunto he was accuſtomed for the ſpace of ten months; at every time one hour
“ and a half, during which time the Timbrel ſtill ſounded; ſo that at laſt, uſe framed Nature to ſuch a
“ ſtrain, that hearing a Timbrel, he inſtantly remembred the fire that was wont to puniſh his
“ feet, and ſo preſently would leap to and fro like a dancer in publick ſpectacle, to the admiration
“ of all beholders.

Of the *two ſorts* of CAMELOPARDALS.



Of the name.

THis Beaſt is called in *Hebrew*, *Zamer*; Deut. 14. which the *Arabians* tranſlate *Saraphab*, and ſometime *Gyrapha*, *Gyraffa*, and *Zirafa*; the *Chaldeans*, *Deba*, and *Ana*; the *Perſians*, *Seraphab*; and the *Septuagint Grecians*, *Camelopardalis*, which word is alſo retained by the *Latins*, whereunto

Albertus

Juli. Capital.
Pliny.

Albertus addeth *Oraſlus*, and *Oraſius*. The *Ethiopians* call it *Nabin*, from whence cometh *Anabula*, and *Pauſanias* tranſlateth it an *Indian Sheep*, ſo indeed *Anabula* may be *Engliſh'd* a wilde Sheep.

A hiſtory.
Iſidorus.

There were ten of theſe ſeen at *Rome*, in the daies of *Gordianus* the Emperor, and before that time, *Cæſar* being Dictator. And ſuch an one was ſent by the *Sultan* of *Babylon* to the Emperor *Frederick*, ſo that it is without queſtion that there is ſuch a beaſt, which is engendred of a Camel and a female *Libard*, or *Panther*, as *Horace* ſaith;

Diverſum confuſa genus Panthera Camelo.

The generation and deſcription.
Leo Afric.
Oppianus.
Heliodorus.
Their manner of going.

But the ſame which the *Latins* call *Panthera* the *Grecians* call *Pardalis*. The head thereof is like to a Camels, the neck to a Horſes, the body to a Harts; and his cloven hoof is the ſame with a Camels: the colour of this Beaſt is for the moſt part red and white, mixed together, therefore very beautifull to behold, by reaſon of the variable and interchangeable skin, being full of ſpots: but yet they are not alway of one colour. He hath two little horns growing on his head of the colour of iron, his eyes rowling and frowing, his mouth but ſmall like a Harts, his tongue is neer three foot long, and with that he will ſo ſpeedily gather in his meat, that the eyes of a man will fail to behold his haſt, and his neck diverſly coloured, is fifteen foot long, which he holdeth up higher then a Camels, and far above the proportion of his other parts. His forefeet are much longer then his hinder and therefore his back declineth towards his buttocks, which are very like an Aſſes. The pace of this beaſt differeth from all other in the world, for he doth not move his right and left foot one after another, but both together, and ſo likewiſe the other, whereby his whole body is removed at every ſtep or ſtrain.

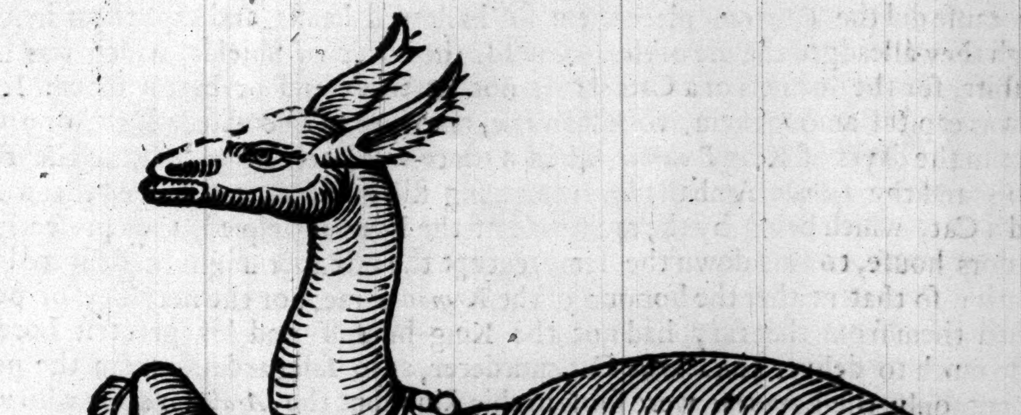
The Countries breeding theſe beaſts.
Their natural diſpoſition and mildneſs.

Theſe beaſts are plentiful in *Ethiopia*, *India*, and the *Georgian* region, which was once called *Media*. Likewiſe in the Province of *Abaſia* in *India*, it is called *Surnoſa*, and in *Abaſia*, *Surnappa*, and the latter picture before ſet down, was truly taken by *Melchior Luorigus* at *Conſtantinople*, in the year of ſalvation 1559. by the ſight of one of theſe, ſent to the great *Turke* for a preſent: which picture and deſcription, was afterward ſent into *Germany*, and was imprinted at *Norimberge*. It is a ſolitary beaſt, and keepeth altogether in woods, if it be not taken when it is young: they are very tractable and eaſie to be handled, ſo that a child may lead them with a ſmall line or cord about their head, and when any come to ſee them, they willingly and of their own accord turn themſelves round as it were of purpoſe to ſhew their ſoft hairs, and beautiful colour, being as it were proud to raviſh the eyes of the beholders.

The skin.

The skin is of great price and eſtimation among Merchants and Princes, and it is ſaid that underneath his belly, the colourable ſpots are wrought in faſhion of a fiſhers net, and the whole body ſo admirably intercoloured with variety, that it is in vain for the wit or art of man, once to go about to endevour the emulous imitation thereof. The tail of the beaſt is like the tail of an Aſſe, and I cannot judge that it is either ſwift for pace or ſtrong for labour, and therefore well tearmed a wilde Sheep, becauſe the fleſh hereof is good for meat, and was allowed to the *Jews* by God himſelf for a clean beaſt.

Of the *ALLOCAMELUS.*



S*Caliger* affirmeth, that in the land of the Giants, there is a beaſt which hath the head, neck, and ears of a Mule, but the body of a Camel; wherefore it is probable, that it is conceived by a Camel and a Mule: the picture whereof is before ſet down, as it was taken from the ſight of the beaſt, and imprinted with a deſcription at *Middleborough* in the year 1558. which was never before ſeen in *Germany*, nor yet ſpoken of by *Pliny*.

They ſaid that it was an *Indian* Sheep, out of the region of *Peru*, and ſo was brought to *Antwerp*, ſix thouſand miles diſtant from that nation. It was about two yards high, and five foot in length, the neck was as white as any Swan: the colour of his other parts was yellowiſh, and his feet like an Oſtrige-Camels: and although it were a male, yet it did render his urine backward: it was afterward given to the Emperor by *Theodoric Neur*, a Citizen of the neather *Colen*. It was a moſt gentle and meek beaſt like the *Camelopardal*, not paſt four year old: wherefore I thought good to expreſſe it in this place, becouſe of the ſimilitude it hath with the manners of the former beaſt, although it want horns and differ in ſome other members.

Of another *Beaſt* called CAMPE.

D*Iodorus Siculus* maketh relation, that when *Dionyſius* with his Army travelled through the deſert and dry places, annoyed with divers wilde beaſts, he came to *Zambirra* a City of *Lybia*, where he ſlew a beaſt bred in thoſe parts called *Campe*, which had before that time deſtroyed many men, which action did purchaſe him among the inhabitantes a never dying fame, and that therefore there might remain a continual remembrance to all poſterity of that fact, he raiſed up there a monument of the ſlain beaſt to ſtand for evermore.

Of the CAT.

Of the name.

The nature and etymology of a Cat.

A *Cat* is a familiar and well known beaſt, called of the *Hebrews*, *Catull*, and *Schanar*, and *Schunara*; of the *Grecians*, *Aeluros*, and *Kattes*, and *Katis*; of the *Saracens*, *Katt*; the *Italians*, *Gatta*, and *Gotto*; the *Spaniards*, *Gata*, and *Gato*; the *French*, *Chat*; the *Germans*, *Katz*; the *Illyrians*, *Kozka*, and *Furioz*, (which is nſed for a Cat by *Albertus Magnus*) and I conjecture, to be either the *Perſian* or the *Arabian* word. The *Latins* call it *Feles*, and ſometimes *Murilegus*, and *Muſio*, becauſe it catcheth Miſe, but moſt commonly *Catus*, which is derived of *Cautus*, ſignifying wary. *Ovid* ſaith, that when the Giants warred with the Gods, the Gods put upon them the ſhapes of Beaſts, and the ſiſter of *Apollo* lay for a ſpy in the likeneſs of a Cat, for a Cat is a watchful and wary beaſt ſeldom overtaken, and moſt attendant to her ſport and prey: according to that obſervation of *Mantuan*;

Non ſecus ac muricatus, ille invadere pernam,
Nititur, hic rimas oculis obſervat acutis.

Their uſe among the *Egyptians*.

A Hiſtory.

Cælius.

And for this cauſe did the *Egyptians* place them for hallowed beaſts, and kept them in their Temples, although they alleadged the uſe of their skins for the cover of Shields, which was but an unreaſonable ſhift, for the ſoftneſs of a Cats skin is not fit to defend or bear a blow: It is known alſo, that it was capital among them, to kill an *Ibis*, an Aſpe, a Crocodile, a Dog, or a Cat; in ſo much as, that in the dayes of King *Ptolemie*, when a peace was lately made betwixt the *Romans* and the *Egyptians*; and the *Roman* Ambaſſadors remaining ſtill in *Egypt*, it fortuned that a *Roman* unawares killed a Cat, which being by the multitude of the *Egyptians* eſpied, they preſently fell upon the Ambaſſadors houſe, to raſe down the ſame, except the offender might be delivered unto them to ſuffer death: ſo that neither the honour of the *Roman* name, nor the neceſſity of peace, could have reſtrained them from that fury, had not the King himſelf and his greateſt Lords come in perſon, not ſo much to deliver the *Roman* Cat-murderer, as to ſafegard him from the peoples violence. And not only the *Egyptians* were fools in this kind, but the *Arabians* alſo, who worſhipped a Cat for a God; and when the Cat dyed, they mourned as much for her, as for the father of the family, ſhaving the hair from their eye-lids, and carrying the beaſt to the Temple, where the Prieſts ſalted it and gave it a holy funeral in *Bubaſtum*, (which was a burying place for Cats neer the Altar) wherein may appear to all men, in what miſerable blindneſs the wiſeſt men of the world, (forſaking, or deprived of the true knowledge of God) are more then captivated, ſo that their wretched eſtate cannot better be expreſſed then by the words of St. *Paul*, *When they thought to be wiſe, they became fools.*

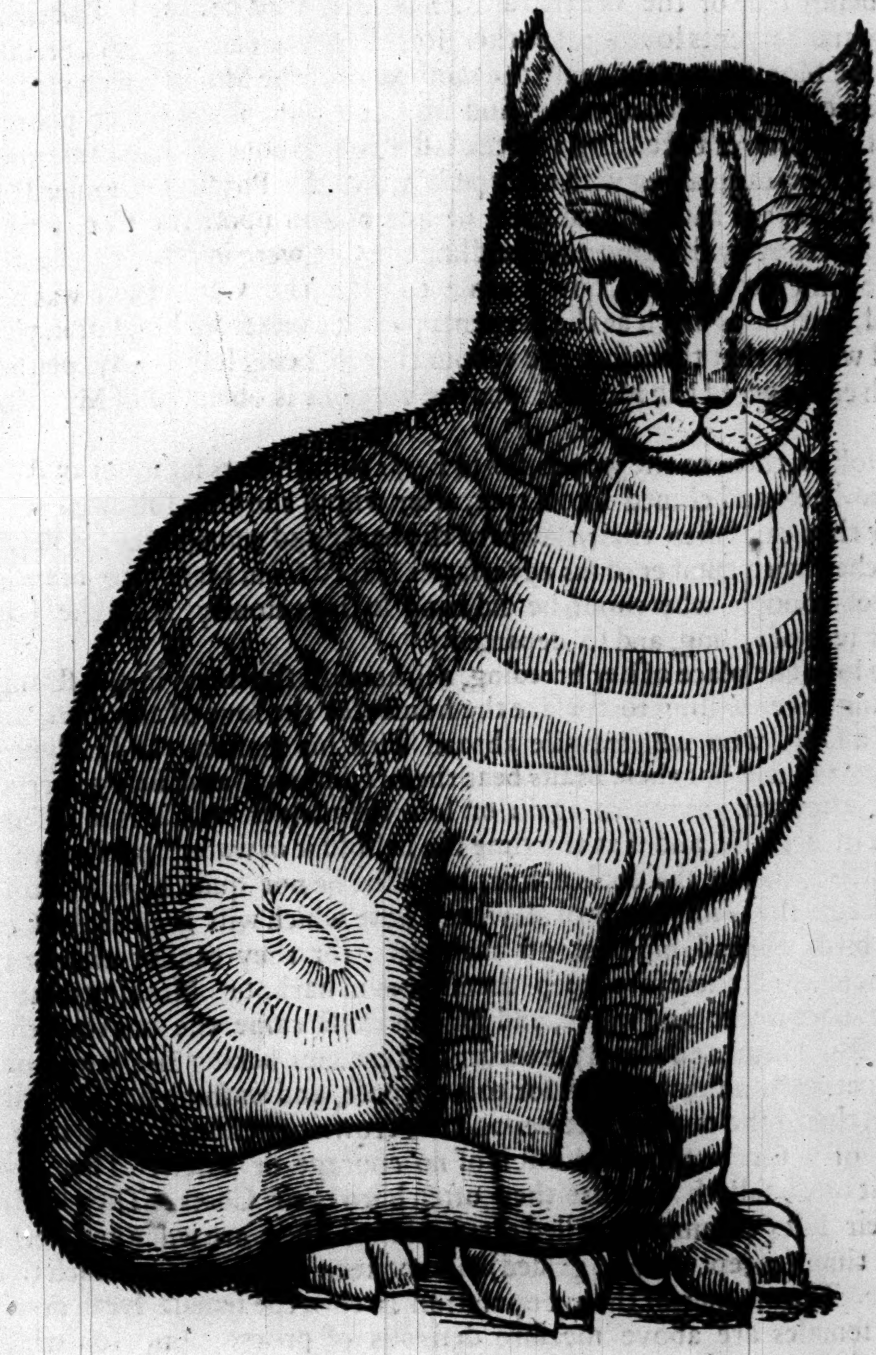
Of the taming of Cats and their countries.

Once Cats were all wild, but afterward they retired to houſes, wherefore there are plenty of them in all Countries: *Martial* in an Epigram, celebrated a *Pannonian* Cat with this diſtichon;

Pannonicas nobis nunquam dedit Umbria Cattas,
Mavult hæc dominæ mittere dona pudens.

The *Spaniſh* black Cats are of moſt price among the *Germans*, becauſe they are nimbleſt, and have the ſofteſt hair fit for garment. The beſt Cats.

A Cat is in all parts like a Lioneſs, except in her ſharp ears, wherefore the Poets ſeign, that when *Venus* had turned a Cat into a beautiful woman, (calling her *Aeluros*) who forgetting her good turn, contended with the Goddeſſe for beauty; in indignation whereof, ſhe returned her to her firſt nature, only making her outward ſhape to reſemble a Lion; which is not altogether idle, but may admoniſh the wiſeſt, that fair and foul, men and beaſts, hold nothing by their own worth and benefit, but by the virtue of their Creator: Wherefore if at any time they riſe againſt their maker, let them think to loſe their honour and dignity in their beſt part, and to return to baſeneſs and inglorious contempt; out of which they were firſt taken, and howſoever their outward ſhape and condition pleaſe them, yet at the beſt are but beaſts that periſh, for the Lions ſuffer hunger.



Spontius. Of the ſeveral parts.

Cats are of divers colours, but for the moſt part griſeld, like to congealed iſe, which cometh from the condition of her meat: her head is like unto the head of a Lion, except in her ſharp ears: her fleſh is ſoft and ſmooth: her eyes gliſter above meaſure, eſpecially when a man cometh to ſee them on the ſuddain, and in the night they can hardly be endured, for their flaming aſpect. Wherefore *Democritus* deſcribing the *Perſian Smaragde* ſaith that it is not tranſparent, but filleth the eye with pleaſant brightneſs, ſuch as is in the eyes of Panthers and Cats, for they caſt forth beams in the ſhadow and darkneſs, but in ſunſhine they have no ſuch clearneſs, and thereof *Alexander Aphrodiſe* giveth this reaſon, both for the ſight of Cats and Bats, that they have by nature a moſt ſharpe ſpirit of ſeeing.

Albertus compareth their eye-ſight to Carbuncles in dark places, becauſe in the night they can ſee perfectly to kill Rats and Mice: the root of the herb *Valerian* (commonly called *Phu*) is very like to the eye of a Cat, and whereſoever it groweth, if Cats come thereunto, they inſtantly dig it up, for the love thereof, as I my ſelf have ſeen in mine own Garden; and not once only, but often; even then when as I had cauſed it to be hedged or compaſſed round about with thornes, for it ſmelleth marvellous like to a Cat.

The *Egyptians* have obſerved in the eyes of a Cat, the encreaſe of the Moon light, for with the Moon they skin more fully at the full, and more dimly in the change and wane, and the male Cat doth alſo vary his eyes with the Sun; for when the Sun ariſeth, the apple of his eye is long; toward noon it is round, and at the evening it cannot be ſeen at all, but the whole eye ſheweth alike. *Gillius.*

The tongue of a Cat is very attractive and forcible like a file, attenuating by licking the fleſh of a man, for which cauſe, when ſhe is come neer to the bloud, ſo that her own ſpittle be mingled therewith, ſhe falleth mad. Her teeth are like a ſaw, and if the long hairs growing about her mouth (which ſome call *Granons*) be cut away, ſhe loſeth her courage. Her nails ſheathed like the *Pliny.*

the nails of a Lion, ſtriking with her forefeet, both Dogs and other things, as a man doth with his hand.

The game and food of Cats.

This beaſt is wonderful nimble, ſetting upon her prey like a Lion, by leaping, and therefore ſhe hunteth both Rats, all kind of Mice, and Birds, eating not only them, but alſo fiſh, wherewithall ſhe is beſt pleaſed Having taken a Mouſe, ſhe firſt playeth with it, and then devoureth it, but her watchful eye is moſt ſtrange, to ſee with what pace and ſoft ſteps, ſhe taketh birds and flies; and her nature is to hide her own dung or excrement, for ſhe knoweth that the ſavour and preſence thereof, will drive away her ſport, the little Mouſe being able by that ſtool, to ſmell the preſence of her mortal foe.

Pliny.
A ſecret.

To keep Cats from hunting of Hens, they uſe to tie a little wilde Rew under their wings, and ſo likewiſe from Dove-coates, if they ſet it in the windowes, they dare not approach unto it for ſome ſecret in nature. Some have ſaid that Cats will fight with Serpents, and Toads, and kill them, and perceiving that ſhe is hurt by them; ſhe preſently drinketh water and is cured: but I cannot conſent unto this opinion: it being true of the Weaſell as ſhall be afterward declared. *Pontzettus* ſheweth by experience that Cats and Serpents love one another, for there was (ſaith he) in a certain Monaſtery, a Cat nouriſhed by the Monkes, and ſuddenly the moſt parts of the Monks which uſed to play with the Cat fell ſick: whereof the Phyſitians could find no cauſe, but ſome ſecret poiſon, and all of them were aſſured that they never taſted any: at the laſt a poor labouring man came unto them, affirming that he ſaw the Abbey-cat playing with a Serpent, which the Phyſitians underſtanding, preſently conceived that the Serpent had emptied ſome of her poiſon upon the Cat, which brought the ſame to the Monks, and they by ſtroking and handling the Cat, were infected therewith; and whereas there remained one difficulty, namely, how it came to paſſe, the Cat her ſelf was not poiſoned thereby, it was reſolved, that for as mnch as the Serpents poiſon came from him but in play and ſport, and not in malice and wrath, that therefore the venom thereof being loſt in play, neither harmed the Cat at all, nor much endangered the Monks: and the very like is obſerved of Mice that will play with Serpents.

Of their love and hatred.

Ælianus.

Cats will alſo hunt Apes, and follow them to the woods, for in *Egypt* certain Cats ſet upon an Ape, who preſently took himſelf to his heels, and climed into a tree, after whom the Cats followed with the ſame celerity & agility: (for they can faſten their clawes to the barke and run up very ſpeedily:) the Ape ſeeing himſelf overmatched with number of his adverſaries, leaped from branch to branch, and at laſt took hold of the top of a bough, whereupon he did hang ſo ingeniouſly, that the Cats durſt not approach unto him for fear of falling, and ſo departed.

The love of home.

The nature of this beaſt is, to love the place of her breeding, neither will ſhe tarry in any ſtrange place, although carryed far, being never willing to forſake the houſe, for the love of any man, and moſt contrary to the nature of a Dog, who will travaile abroad with his maſter; and although their maſters forſake their houſes, yet will not theſe beaſts bear them company, and being carryed forth in cloſe baskets or ſacks, they will yet return again or loſe themſelves. A Cat is much delighted to play with her image in a glaſſe, and if at any time ſhe behold it in water, preſently ſhe leapeth down into the water which naturally ſhe doth abhor, but if ſhe be not quickly pulled forth and dryed ſhe dyeth thereof, becauſe ſhe is impatient of all wet. Thoſe which will keep their Cats within doors, and from hunting birds abroad, muſt cut off their ears, for they cannot endure to have drops of rain diſtill into them, and therefore keep themſelves in harbour. Nothing is more contrary to the nature of a Cat, then is wet and water, and for this cauſe came the proverb that they love not to wet their feet. It is a neat and cleanly creature, oftentimes licking her own body to keep it neat and fair, having naturally a flexible back for this purpoſe, and waſhing her face with her forefeet: but ſome obſerve, that if ſhe put her feet beyond the crown of her head, that it is a preſage of rain, and if the back of a Cat be thin the beaſt is of no courage or valew. They love fire and warm places, whereby it often falleth out that they often burn their Coats. They deſire to lie ſoft, and in the time of their luſt (commonly called cat-wralling) they are wilde and fierce, eſpecially the males, who at that time (except they be gelded) will not keep the houſe: at which time they have a peculiar direful voice. The manner of their copulation is this, the female lyeth down, and the male ſtandeth, and their females are above meaſure deſirous of procreation, for which cauſe they provoke the male, and if he yeeld not to their luſt, they beat and claw him, but it is only for love of young, and not for luſt: the male is moſt libidinous, and therefore ſeeing the female will never more engender with him during the time her young ones ſuck, he killeth and eateth them if he meet with them, (to provoke the female to copulation with him again, for when ſhe is deprived of her young, ſhe ſeeketh out the male of her own accord) for which the female moſt warily keepeth them from his ſight. During the time of copulation, the female continually cryeth, whereof the Writers give a double cauſe; one, becauſe ſhe is pinched with the talons or clawes of the male in the time of his luſtful rage; and the other, becauſe his ſeed is ſo fiery hot, that it almoſt burneth the females place of conception. When they have littered, or as we commonly ſay kittened, they rage againſt Dogs, and will ſuffer none to come neer their young ones. The beſt to keep are ſuch as are littered in *March*; they go with young fifty daies, and the females live not above ſix or ſeven years, the males live longer, eſpecially if they be gelt or libbed: the reaſon of their ſhort life is their ravening of meat which corrupteth within them.

Albertus.
A way to make Cats keep home.

A conjectural ſecret.

Their copulation.

Ariſtotle.

Ælianus.

Choiſe of yong Cats.

Gillius. Cœlius. Alu. Mundel. Their diſeaſes.

They cannot abide the ſavour of ointments, but fall mad thereby; they are ſometimes infected with the falling evill, but are cured with *Gobium*. It is needleſs to ſpend any time about her loving nature to man, how ſhe flattereth by rubbing her skin againſt ones Legs, how ſhe whurleth with her voice, having as many tunes as turnes, for ſhe hath one voice to beg and to complain, another to teſtifie her delight and pleaſure, another among her own kind by flattering, by hiſſing, by puffing, by ſpitting, in ſo much as ſome have thought that they have a peculiar intelligible language among themſelves. Therefore how ſhe beggeth, playeth, leapeth, looketh, catcheth, toſſeth with her foot, riſeth up to ſtrings held over her head, ſometimes creeping, ſometimes lying on the back, playing with one foot, ſometime on the belly, ſnatching now with mouth, and anon with foot, apprehending greedily any thing ſave the hand of a man, with divers ſuch geſtical actions, it is needleſs to ſtand upon; in ſo much as *Cœlius* was wont to ſay, that being free from his Studies and more urgent weighty affaires, he was not aſhamed to play and ſport himſelf with his Cat, and verily it may well be called an idle mans paſtime. As this beaſt hath been familiarly nouriſhed of many, ſo have they payed dear for their love, being requited with the loſſe of their health, and ſometime of their life for their friendſhip: and worthily, becauſe they which love any beaſt in a high meaſure, have ſo much the leſſe charity unto man.

The hurt that cometh by the familiarity of a Cat. Alex. Benidi. Abynzoar.

Therefore it muſt be conſidered what harmes and perils come unto men by this beaſt. It is moſt certain, that the breath and ſavour of Cats conſume the radical humour and deſtoy the lungs, and therefore they which keep their Cats with them in their beds have the air corrupted, and fall into ſeverall Hecticks and Conſumptions. There was a certain company of Monks much given to nouriſh and play with Cats, whereby they were ſo infected, that within a ſhort ſpace none of them were able either to ſay, read, pray, or ſing, in all the Monaſtery; and therefore alſo they are dangerous in the time of Peſtilence, for they are not only apt to bring home venemous infection, but to poiſon a man with very looking upon him; wherefore there is in ſome men a natural diſlike and abhorring of Cats, their natures being ſo compoſed, that not only when they ſee them, but being neer them and unſeen, and hid of purpoſe, they fall into paſſions, frettings, ſweating, pulling off their hats, and trembling fearfully, as I have known many in *Germany*; the reaſon whereof is, becauſe the conſtellation which threatneth their bodies which is peculiar to every man, worketh by the preſence and offence of theſe creatures: and therefore they have cryed out to take away the Cats.

Of a Cats fleſh

The like may be ſaid of the fleſh of Cats, which can ſeldom be free from poiſon, by reaſon of their daily food, eating Rats and Mice, Wrens and other birds which feed on poiſon, and above all the brain of a Cat is moſt venomous, for it being above meaſure dry, ſtoppeth the animal ſpirits, that they cannot paſſe into the ventricle, by reaſon whereof memory faileth, and the infected perſon falleth into a Phrenzie. The cure whereof may be this, take of the water of ſweet Marjoram with *Terra lemnia* the weight of a groat mingled together, and drink it twice in a month, putting good ſtore of ſpices into all your meat to recreate the ſpirits withall, let him drink pure Wine, wherein put the ſeed of *Diamoſchu*. But a Cat doth as much harm with her venemous teeth, therefore to cure her biting, they preſcribe a good diet, ſometime taking Hony, Turpentine, and Oil of Roſes melt together and laid to the wound with *Centory*: ſometime they waſh the wound with the urine of a man, and lay to it the brains of ſome other beaſt and pure Wine mingled both together.

Ponzettus. Alexander.

Mathæolus.

The hair alſo of a Cat being eaten unawares, ſtoppeth the Artery and cauſeth Suffocation: and I have heard that when a childe hath gotten the hair of a Cat into his mouth, it hath ſo cloven and ſtuck to the place that it could not be gotten off again, and hath in that place bred either the wens or the Kings evill. To conclude this point, it appeareth that this is a dangerous beaſt, and that therefore as for neceſſity we are conſtrained to nouriſh them for the ſuppreſſing of ſmall vermine: ſo with a wary and diſcreet eye we muſt avoid their harms, making more account of their uſe then of their perſons.

In *Spain* and *Gallia Narbon*, they eat Cats, but firſt of all take away their head and tail, and hang the prepared fleſh a night or two in the open cold air, to exhale the ſavour and poiſon of it, finding the fleſh thereof to be almoſt as ſweet as a Cony. It muſt needs be an unclean and impure beaſt that liveth only upon vermin and by ravening, for it is commonly ſaid of a man when he neeſeth, that he hath eaten with Cats: likewiſe the familiars of Witches do moſt ordinarily appear in the ſhape of Cats, which is an argument that this beaſt is dangerous to ſoul and body. It is ſaid that if bread be made wherein the dung of Cats is mixed, it will drive away Rats and Mice. But we conclude the ſtory of this beaſt with the medicinal obſervations, and tarry no longer in the breath of ſuch a creature compounded of good and evill. It is reported that the fleſh of Cats ſalted and ſweetned hath power in it to draw wens from the body, and being warmed to cure the Hemorrhoids and pains in the reins and back, according to the Verſe of *Vrſinus*.

Perottus.

Et lumbus lumbis præſtat adeſus opem.

Galenus. The medicinal virtues of a Cat.

Aylſius preſcribeth a fat Cat ſod for the Gowt, firſt taking the fat, and anointing therewith the ſick part, and then wetting Wool or Tow in the ſame, and binding it to the offended place.

For the pain and blindneſs in the eye, by reaſon of any skins, webs, or nails, this is an approved medicine; Take the head of a black Cat, which hath not a ſpot of another colour in it, and burn it to powder in an earthen pot leaded or glazed within, then take this powder and through a quill blow it thrice a day into thy eye, and if in the night time any heat do thereby annoy thee, take two leaves of an Oke wet in cold water and bind them to the eye, and ſo ſhall all pain flie away, and blindneſs depart although it hath oppreſſed thee a whole year: and this medicine is approved by many Phyſicians both elder and later.

Calen. *Sextus.* *Aetius.* *Raſis.* *Albertus.* *Pliny.*

The liver of a Cat dryed and beat to powder is good againſt the ſtone: the dung of a female Cat with the claw of an Oul hanged about the neck of a man that hath had ſeven fits of a Quartain Ague, cureth the ſame: a neeſing powder made of the gall of a black Cat, and the weight of a groat thereof taken and mingled with four crowns weight of Zambach, helpeth the convulſion and wryneſs of the mouth: and if the gall of a Cat with the black dung of the ſame Cat, be burned in perfume under a woman travelling with a dead childe, it will cauſe it preſently to come forth: and *Pliny* ſaith that if a pin, or thorn, or fiſh bone, ſtick in ones mouth, let him rub the outſide againſt it with a little Cats dung, and it will eaſily come forth. Given to a woman ſuffering the flux, with a little Rozen and Oil of Roſes, it ſtayeth the humour; and for a Web in the eye of an horſe, evening and morningblow in the powder of Cats dung, and it ſhall be cured.

Of the *Wilde CAT.*

ALl Cats at the beginning were wilde, and therefore ſome do interpret *Iim*, Iſa. 34. for wilde Cats; and the *Germans* call it **Bonumruter**, that is, a tree-rider, becauſe ſhe hunteth Birds and fowles from tree to tree. The *Spaniard* calleth it *Gato-montes*, and in ſome places of *France* it is called **Chatcarets**. There are great ſtore of them in *Helvetia*, eſpecially in the Woods, and ſometime neer the waters, alſo being in colour like tame Cats but blacker, ſuch as in *England* is called a *Poolcat*. I ſaw one of them, which was taken in *September*, and obſerved, that it was in length from the forehead to the top of the tail, four full ſpans, and a black line or ſtrake all along the back, and likewiſe ſome black upon the legs; betwixt the breaſt and the neck there was a large white ſpot, and the colour of her other parts was dusky, red, and yellow, eſpecially about the buttocks, the heels of her feet were black, her tail longer then an ordinary houſe Cats, having two or three black circles about it, but toward the top all black.

Olaus Mag. They abound in *Scandivania*, where the Linxes devour them; otherwiſe they are hunted with Dogs, or ſhot with Guns, and many times the Countreymen ſeeing one in a tree, doth compaſſe it about with multitude, and when ſhe leapeth down kill her with their cubs, according to the verſe of *Neverſianus*:

——————Felemque minacem
Arboris in trunco, longis perfigere telis.

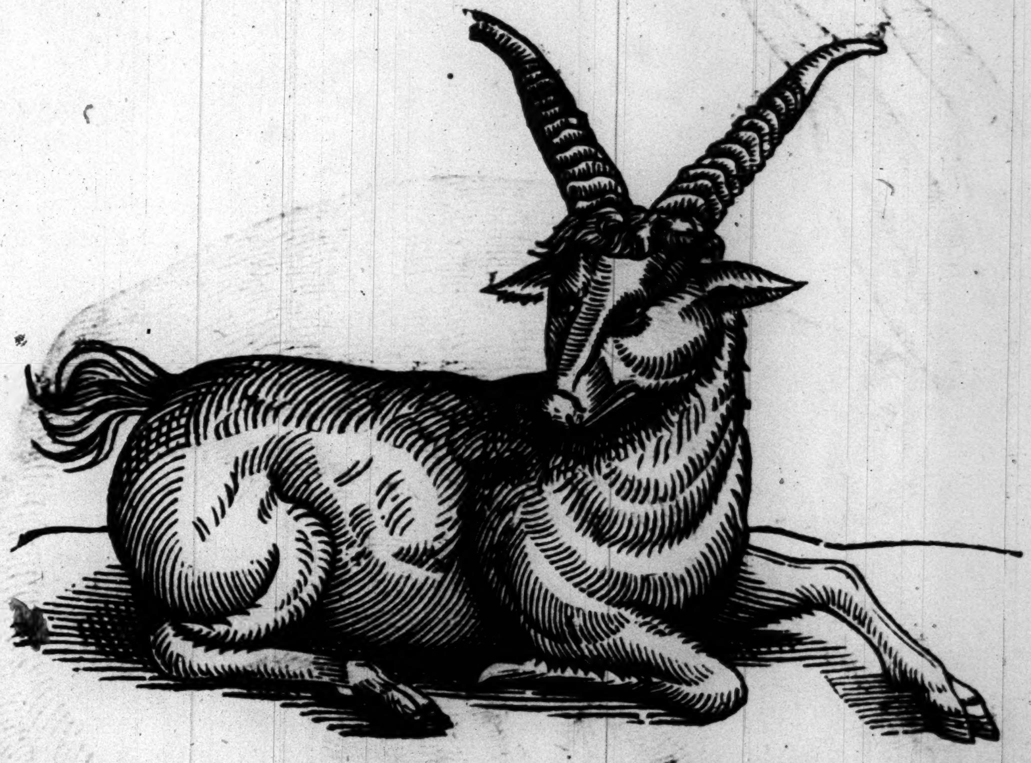
In the province of *Malabar*, theſe Cats live upon trees, becauſe they are not ſwift to run, but leap with ſuch agility, that ſome have thought they did flie: and verily they do flie, for they have a certain skin, which when they lie in quiet, cleaveth or ſhrinketh up to their bellies, but being ſtirred, the ſame ſpreadeth from their forefeet to their hinder, like the wing of a Bat; by vertue whereof, they ſtay up themſelves in the air, paſſing from tree to tree like a fowl; as alſo doth the *Pontique* Mouſe, as ſhall be declared afterward.

The skins of wilde Cats are uſed for garments, for there is no skin warmer, as by experience appeareth in *Scythia* and *Moſcovia*, where their women are clothed with the fur of Cats, but eſpecially for buskins and ſleeves with their hair turned inward, not only againſt cold but for medicine, againſt contracted ſinews, or the Gowt. The fat of this beaſt is reſerved by ſome for heating, ſoftening, and diſplaying tumours in the fleſh: and whatſoever *Raſis* or any other ſaid of the houſe Cat before in the medicinal parts, that alſo appertaineth to this, except as in all other, ſo it falleth forth herein, that the virtues of the wilde kind is more effectual then the tame.

There are ſome among the *Rhaetians* and *Germans*, which eat the fleſh hereof, accounting it delicate, having firſt cut off the head and tail; they cannot abide the fume of Rew, or of bitter Almonds; there is nothing memorable in the nature of this beaſt that I can learn, except that which is related by *Aetius*, that when men are bitten by Crocodils, this beaſt by a natural inſtinct hating a Crocodil, will come about the wounded perſons, otherwiſe fearing the preſence of man.

We may hereunto add the beaſt which is bred in *America*, called *Heyratt*, ſpoken of by *Theuetus*: which name ſignifieth a beaſt of Hony, and the reaſon is, becauſe it deſireth Hony above meaſure, for it will climb the trees, and coming to the caves of Bees, it will with ſuch dexterity take out the Hony with their nails, that it neither hurteth the Bees, or receiveth harm by them. It is about the bigneſs of a Cat, and of a Cheſſe-nut colour.

Of the COLVS.



The name.

Of the colour.

A miraculous thing in her drink.

Strabo lib. 7.

THere is among the *Scythians* and *Sarmatians* a four-footed wilde beaſt called *Colus*, and ſome *Sulac* in *Latin*; of the *Polonians*, *Soihac*, of the *Moſcovites*, *Seigak*; of the *Tartarians*, *Akkiik*, and *Snak*; of the *Turkes*, *Acomi*; being in quantity and ſtature betwixt a Ram and a Hart, and duskie white coloured, but the young ones yellow: of a ſingular ſwiftneſs and celerity in courſe. Her manner is to drink by the holes in her Noſtrils, whereby ſhe ſnuffeth up aboundance of Water, and carryeth it in her head, ſo that ſhe will live in dry paſtures remote from all moiſture a great ſeaſon, quenching her thirſt by that Ciſtern in her head.

Of the Countries of their breed.

Of their hunting and taking.

They are moſt plentiful to be found in *Tartaria*, in *Pontus*, where are ſo many plains, that a man can ſee nothing but heaven and earth; likewiſe they are found in *Moſcovia*, in *Podocia*, and about the River *Nepius*, and *Boryſthenes*: they can never be taken but by weariſomeneſs: wherefore if men follow them with Pipes and Timbrels, playing upon them, they ſo weary themſelves with leaping and running to and fro, being compaſſed in by multitudes of men, that they fall down for weakneſs, and ſo are taken. They live in flocks together, ſometimes five hundred; and after *Easter* in the Spring, two hundred in a troope: having a Snout like a Hogs, they endure much hunger, but no cold.

Of their procreation.

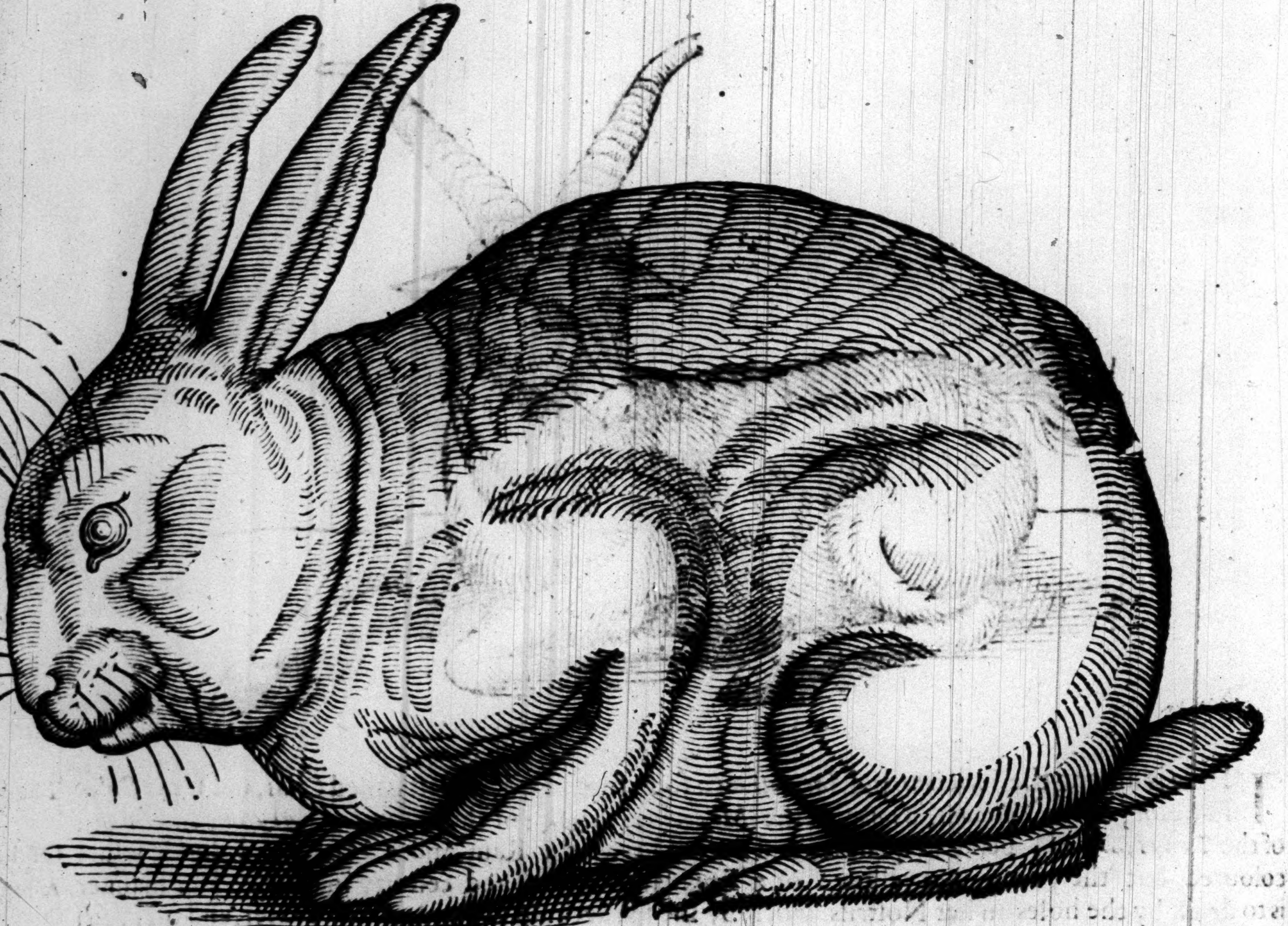
In *March* they dig up with their Horns a certain root, whereof they eat, and preſently their luſt for generation encreaſeth unto rage; in ſo much that for ſatisfying thereof they continue in that act both male and female, untill they loſe all ſtrength of body, lying half dead on the earth by the ſpace of 24 hours, not able to go or ſtand: during which time they are often taken alive, but when they come again to themſelves, they rather die then endure to be tamed.

The fleſh of them is very ſweet and wholeſome, they conceive and bring forth for the moſt part twins, or two at a time; their greateſt enemy is a Wolf (for in the Winter and ſnow they hunt and kill them.) Their horn are about four palms in length, growing upright or bending very little and very ſharp, wherewithal they can pierce the belly of a Horſe or other beaſt that ſtandeth over them: at the root they are about ſix inches compaſs, and ſo growing leſſe and leſſe to the top; one of them weigheth about nine ounces; the blade toward the point is tranſparent, being held againſt the light or ſun, becauſe it is white and thin, but the neather part is duskie and thicker, and therefore it is not penetrable by the eye of man. There are about 14 circles like rings compaſſing about the horn, one above another, but the uppermoſt is not perfect. This horn is of great price, being a preſent for any Noble man, for in *Turkey* they are ſold for ſix *Cracovian* ſhillings; yet I know no other uſe of them, but either to make hafts for knives, or elſe horns for Spectacles.

Mat. Michou

This beaſt liveth altogether in the plains except in ſnow, and then he runneth into the Woods; where he may be taken more eaſily, and killed with the ſtroke of a Staffe. When the *Tartarians* know in what plains they lie, their King cometh and with a multitude of men compaſſeth them and wearyeth them by muſick as aforeſaid. All this was related to me by one that had killed of them above two hundred with his own hand (ſaith that right honorable and moſt learned Gentleman *Johannes Bonarus*, *Baoron* of *Balſzei* a *Palonian*.

Of the CONY.



Strabo.
Of the name.
Platina.
Hermolaus.
Polybius.
Grapaldus.
The etymology of the name.

AMong the divers kinds of Hares, Conies have the third rank, being therefore called in *Latin*, *Lepuſculi*, (as it were little Hares) and ſometime *Leberidæ*, as it were a Leveret or young Hare, as well as *Cuniculus*: whereof the reaſon is, that it maketh holes in the earth, for *Cuniculus* was a *Latin* word for a hole or cave in the earth, before it was taken for a Cony. *Scaphan* in the ſingular, and *Schephanim*, in the plural, Levit. 11. and Pſal. 104. is taken in *Hebrew* for a Cony or Conies, and not for a Hedge-hog, as the *Septuagint* tranſlate, or for a *Porcuſpine*, although they live alſo in Caves and ſecret places of the earth; and therefore *Choerogrillus*, or *Choerogillius*, or *Choerogryllius*, cannot ſignifie a Cony: as the *Septuagint* tranſlate *Scaphan*, but a Hedge-hog, as the word derived from the face of a Hog doth moſt evidently declare, which can by no means agree with a Cony. In the 14. of Deut. the word *Scaphan* is joyned with a Hare, becauſe it is a beaſt neer of kind unto it, for it is evident, that both of them chew the cud, howſoever a Cony hath not a ſimple cloven foot into two parts. A Cony alſo is called *Adapes*, becauſe of the roughneſs of his feet; The *Chalde* calleth it *Thapſa*; the *Arabians*, *Vebar*; the *Perſians*, *Beganzerab*; and the *Arabians*, following ſometime the *Greek*, call it *Alraneb*, that is, Hares. The *Grecians* call it vulgarly *Skele* and *Daſipos*, *Couniclos*, *Scunax*, and *Lagis*, *Georychios* a Hare digging, living in the earth. The *Italians* call it *Conigli*; the *French*, *Counin*; the *Spaniards*, *Coneio*; the *Germans*, *Kinnigle*, or *Kunel*, and ſometime *Kunlein*; the *Illyrians*, *Kralik* or *Kroliik*.

Their Countrey.
Munſterus.
Athenæus.
Pliny.
Varro.

There are few Countries wherein Conies do not breed, but the moſt plenty of all is in *England*, they are alſo in an Iſland where are but few men neer unto *Dicæarcha*, or as it is now called *Puteoli* in *Italie*. Likewiſe in all *Spain*, eſpecially in thoſe parts neer unto *Lombardy*, whereupon *Appius* in *Varro* did write to one of his acquaintance which had tarryed long in *Spain*, that he thought he was there following or hunting of Conies, becauſe as their multitude is great, ſo it would aske long time to take them. Among the *Baleares* are alſo great ſtore of Conies, and once they ſo abounded there, that the people were conſtrained to entreat at the hands of *Auguſtus*, a military company of Pioners to deſtroy them; and when *Camillus* was beſieging the City *Veii* in *Italy*, he learned of the Conies, which had undermined a whole City in *Spain*, likewiſe to take and overthrow that City by their example of undermining, whereupon *Martial* ſaid:

Monſtravit tacitas hoſtibus ille vias.

Vegetius ſaith, that the proverb *Cuniculos agere* took his beginning, when one by ſecret underminings, and not by open violence overthroweth a Town or Nation. There are alſo, ſaith

Albertus, great ſtore of wilde Conies in *Bohemia*, ſo like a Hare as one beaſt may be like another, ſave only they ſeem ſtronger, and are ſhorter and leſſer, which thing cauſed *Baptiſta Fiera* to write thus:

> *Credideram leporem, ſic forma ſimillima fallit,*
> *Ambo ſuperfœtant, dente vel aure pares.*

Pet. Martyr likewiſe affirmeth in his *Ocean Decades*, that in *Curiana* a region of the new found world, are Conies for colour, quantity, and hair like a Hares, which the inhabitants call *Vitias*, and there are two little Iſlands called *Cuniculariæ*, which ſeem to be denominated of Conies, ſtanding betwixt *Corſica* and *Sardinia*. For their ſeveral parts, they are moſt like unto a Hare, except in their head and tail which is ſhorter, and their colour which is alway brighter, and leſſe brown and ſandy: or elſe ſometimes Conies are white, black, griſeld, tauny, blewiſh, yellow ſpotted, aſh-coloured and ſuch like. And *Alyſius* ſaith, that in ſome places, they are alſo green, and their skins are of great uſe through the world, eſpecially in all the North and Eaſt for garments, facings, and linings. The gray and yellowiſh are the worſt, but the white and black are more pretious, eſpecially of the *Engliſh*, if the black be aſperſed with ſome white or ſilver hairs: and in their uſe the Bucks are moſt durable, yet heavier and harſher. The belly is moſt ſoft, gentle, and eaſie, and therefore more ſet by, although of leſſe continuance. Their fleſh is very white and ſweet, eſpecially of the young ones, being about fourteen or twenty dayes old, and ſome have deviſed a cruel delicate meat, which is to cut the young ones out of the dams belly, and ſo to dreſſe and eat them, but I truſt there is no man among Chriſtians ſo inhumanely gluttonous, as once to deviſe or approve the ſweetneſs of ſo foul a diſh: but the tame ones are not ſo good, for in *Spain* they will not eat of a tame Cony, becauſe every creature doth partake in taſt of the air wherein he liveth, and therefore tame Conies which are kept in a cloſe and unſweet air, by reaſon of their own excrements, cannot taſt ſo well, or be ſo wholeſome as thoſe which run wilde in the mountains and fields, free from all infection of evill air.

Their parts and members.

Agricola.
Ælianus.

The uſe of their skins.

Creſcentienſis.

The uſe of their fleſh.

Pliny.

They love above all places the rocks, and make Dens in the earth, and whereas it is ſaid, Pſal. 104 that the ſtony rocks are for the Cony, it is not to be underſtood as if the feet of the Cony could pierce into the rock, as into the earth, and that ſhe diggeth her hole therein as in looſer ground; but that finding among the rocks holes already framed to her hand, or elſe ſome light earth mingled therewith, ſhe more willingly entreth thereinto, as being more free from rain and floods then in lower and ſofter ground; for this cauſe they love alſo the hils and lower grounds and woods where are no rocks, as in *England* which is not a rocky Countrey, but whereſoever ſhe is forced to live, there ſhe diggeth her holes, wherein for the day time ſhe abideth, but morning and evening cometh out from thence, and ſitteth at the mouth thereof.

The places of their abode.

In their copulation they engender like Elephants, Tygres, and Linxes, that is, the male leapeth on the back of the female, their privie parts being ſo framed to meet one another behind, becauſe the females do render their urine backward: their ſecrets and the ſeed of the male are very ſmal. They begin to breed in ſome Countries being but ſix moneths old, but in *England* at a year old, and ſo continue bearing every moneth, at the leaſt ſeven times in one year, if they litter in *March*, but in the Winter they do not engender at all; and therefore the Authors ſay of theſe and Hares, that they abound in procreation, by reaſon whereof, a little ſtore will ſerve to encreaſe a great borough. Their young being littered are blind and ſee not till they be nine dayes old, and their dam hath no ſuck for them, till ſhe hath been ſix or ſeven hours with the male, at the leaſt for ſix hours after ſhe cannot ſuckle them, greatly deſiring to go to the Buck, and if ſhe be not permitted preſently, ſhe is ſo far diſpleaſed that ſhe will not be ſo inclined again for 14 daies after.

Their copulation and procreation.

Tho. Gypſon.

Tho. Gypſon.

I have been alſo credibly informed by one that kept tame Conies, that he had Does which littered three at a time, and within fourteen daies after, they littered four more. Their ordinary number in one litter is five, and ſometimes nine, but never above: and I have ſeen that when a Doe hath had nine in her belly, two or three of them have periſhed and been oppreſſed in the womb by ſuffocation. The males will kill the young ones, if they come at them like as the Bore cats, and therefore the female doth alſo avoid it carefully, covering the neſt or litter with gravell or earth, that ſo they may not be diſcovered: there are alſo ſome of their females very unnatural, not caring for their yong ones, but ſuffer them to periſh, both becauſe they never provide a warm litter or neſt for them, as alſo becauſe they forſake them being littered, or elſe devour them. For the remedy of this evill, he that loveth to keep them for his profit, muſt take them before they be delivered, and pull off the hair or fleſh underneath their belly, and ſo put it upon their neſt, that when the young one cometh forth, it may not periſh for cold, and ſo the dam will be taught by experience of pain to do the like her ſelf: *Thus far Thomas Gypſon an Engliſh Phyſician.* For Conies you may give them Vine-leaves, Fruits, Herbs, Graſſe, Bran, Oatmel, Mallows, the parings of Apples; likewiſe Cabbages, Apples themſelves, and Lettuce; and I my ſelf gave to a Cony blew Wolfe-bane, which ſhe did preſently eat without hurt, but Gallingale and blind Nettle they will not eat. In the Winter they will eat Hay, Oats and Chaffe, being given to them thrice a day: when they eat Greenes they muſt not drink at all, for if they do, it is hazzard but they will incur the Dropſie: and at other times they muſt for the ſame cauſe drink but little, and that little muſt be alway freſh. It is alſo dangerous to handle their young ones, in the abſence of the dam,

The cruelty of the males and of ſome females.

Their meat and food.

The danger in their meat and drink.

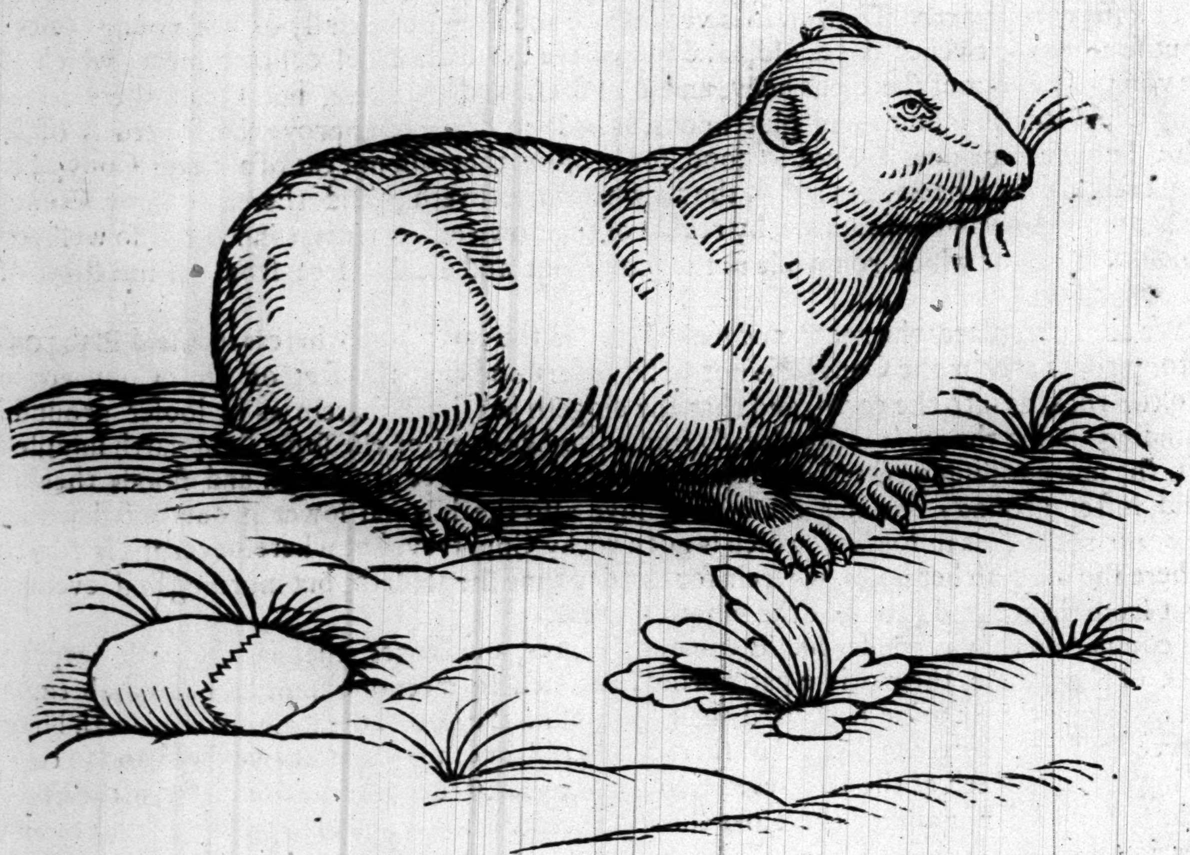
Albertus.

for her jealouſie will eaſily perceive it, which cauſeth her ſo to diſdain them, that either ſhe biteth, forſaketh, or killeth them. Foxes will of their own accord hunt both Hares and Conies, to kill and eat them.

The medicins in a Cony.

Touching their medicinall properties, it is to be obſerved that the brain of Conies hath been eaten for a good Antidote againſt poiſon: ſo alſo the Hart which is hard to be digeſted, hath the ſame operation that is in treacle. There is alſo an approved medicine for the Squinancy or Quinſie: take a live Cony, and burn her in an earthen pot to powder, then take a ſpoonful of that powder in a draught of wine, and drink the moſt part thereof, and rub your throat with the reſidue, and it ſhall cure with ſpeed and eaſe, as *Marcellus* ſaith. The fat is good againſt the ſtopping of the bladder and difficulty of urine being anointed at a fire upon the hairy place of the ſecrets, as *Alex. Benedictus* affirms. Other things I omit concerning this beaſt, becauſe as it is vulgar, the benefits thereof are commonly known.

Of the *Indian* little *PIG-CONY.*



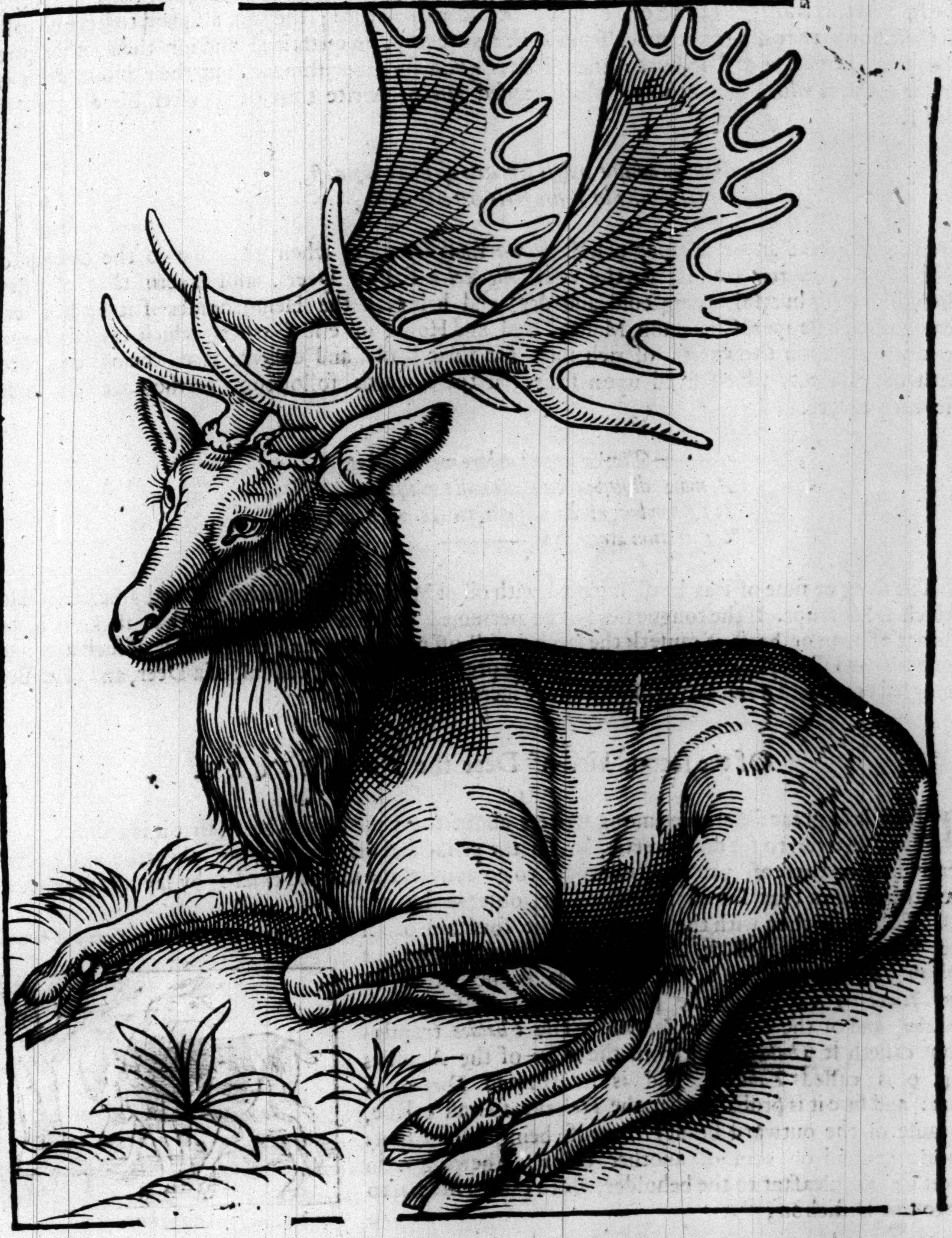
I Received the picture of this beaſt from a certain Noble-man my loving friend in *Paris*, whoſe parts it is not needfull to deſcribe, ſeeing the image it ſelf is perſpicuous and eaſie to be obſerved. The quantity of this beaſt doth not exceed the quantity of a vulgar Cony, but rather the body is ſhorter, yet fuller, as alſo I obſerved by thoſe two, which that noble and learned Phyſician *Joh. Munzingerus* ſent me. It hath two little low ears, round and almoſt pild without hair, having alſo ſhort legs, five claws upon one foot behind, and ſix before; teeth like a mouſe, but no tail, and the colour variable. I have ſeen of them all white, and all yellow, and alſo different from both thoſe; their voice is much like the voice of a Pig, and they eat all kinds of Herbs, Fruits, Oats, and Bread; and ſome give them water to drink, but I have nouriſhed ſome divers moneths together, and never given them any water, but yet I gave them moiſt food, as Herbs, Apples, Rapes, and ſuch like, or elſe they would incur the Dropſie.

Their fleſh is ſweet for meat, of a yellowiſh colour, like the Larde of Swine, and therefore not ſo white as is our vulgar Cony: they do not dig like other Conies, and for the farther deſcription of their nature, I will expreſs it in the words of *Munzingerus* aforeſaid, for thus he writeth.

“ One of the males is ſufficient in procreation for ſeven or nine of the females, and by that means
“ they are made more fruitful, but if you put them one male to one female, then will the venereous
“ ſalacity of the male procure abortment. It is affirmed that they go threeſcore daies with young
“ before they litter, and I ſaw of late one of them bear eight at one time in her womb, but
“ three of them were ſtifled. They bring forth in the winter, and their whelpes are not blinde as
“ are the Conies. They are no way ſo harmful as other are, either to bite or dig, but more tractable
“ in hand; howbeit untamable. If two males be put to one female, they fight fiercely, but they will not

“ hurt the Rabbets. As the male is moſt libidinous, ſo doth he follow the female with a little mur-
“ muring noiſe, bewraying his appetite for generation, without wrath, and theſe are alſo called
“ *Spaniſh* Conies, by *Peter Martyr*, whoſe nature except in their abundant ſuperfœtation cometh
“ nearer to Hogs then Conies.

Of the *Fallow Deer*, commonly called a *BUCK* and a *DOE*.



The name. THere are ſome beaſts (ſaith *Pliny*) which nature hath framed, to have horns grow out of their head like fingers out of the hand, and for that cauſe they are called *Platicerotæ*: ſuch is this vulgar Fallow Deer, being therefore called *Cervus Palmatus*, that is a pálmed Hart, by reaſon of the ſimilitude the horn hath with the hand and fingers. The *Germans* call this beaſt *Dam*, aud *Damlin*, and *Dambirtz*. The *Italians Daio* and *Danio*; the *French*, *Dain*, and *Daim*. The *Spaniards*, *Garno*, and *Corza*; the *Cretians* vulgarly at this day *Agrimi*, and *Platogna*; and *Ariſtotle*, *Prox*; the *Latins*, *Dama*, and *Damula*, becauſe, *de manu*, that is, it quickly flyeth from the hand of man, having no other defence but her heels; and the female *Proca*, and the *Polonians*, *Lanii*. It is a common beaſt in moſt Countries, being as corpulent as a Hart, but in quantity reſembleth more a Roe, except in colour. *Gaza.*

Of their horns, colour and other parts. The males have horns which they loſe yearly, but the females none at all: their colour divers, but moſt commonly branded, or ſandie on the back, like the furrow of a new plowed field, having a black ſtrake down all along the back a tail almoſt as long as a Calves, their bellies and ſides ſpotted with white, which ſpots they loſe in their old age, and the females do eſpecially vary in colour, What *Hippela-phus* is.

being ſometimes all white, and therefore like unto Goats, except in their hair which is ſhorter. The horns of this beaſt are carryed about every where to be ſeen, and therefore this is alſo likely to be the ſame beaſt which ***Ariſtotle*** calleth *Hippelaphus* as ſome would have it; yet I rather think that *Hippelaphus* was like to that rare ſeen horſe which *Francis* the firſt of that name King of *France*, had preſented unto him for a gift; which was engendred of a Horſe and a Hart, and therefore can have no other name then *Hippelaphus*, ſignifying a Horſe-hart.

Ariſtotle.
A ſecret in the bloud.

In the bloud of theſe kind of Deer are not ſtrings or *Fibres*, wherefore it doth not congeal as other doth, and this is aſſigned to be one cauſe of their fearful nature; they are alſo ſaid to have no gall: in their horns they differ not much from a Harts (except in quantity) and for their other parts they much reſemble a Roe-buck: their fleſh is good for nouriſhment, but their bloud doth increaſe above meaſure melancholy, which cauſed *Hiera* to write thus of it, after his diſcourſe of the Roe.

Damula aduſta magis ſi matris ab ubere rapta eſt,
Huic prior in noſtro forte erit orbe locus;

For the preparation or dreſſing of a Buck, we ſhall ſay more when we come to the deſcription of a Hart. *Albertus* tranſlateth the word *Algazel* a Fallow Deer, and ſayeth that the fleſh thereof is very hurtful, being cold and dry, and bringeth the Hemorhoides if it be not well ſeaſoned with Pepper, Cinnamon, Muſtard ſeed, and Hony, or elſe Garlick, which cauſed *Juvenal* to cry out upon the exceſs of rich men for their feaſts and delicate fare, being compared with the Ancients which lived upon fruits, in theſe words following, as they are left in his eleventh Satyre.

——— *Olim ex quavis arbore menſa fiebat,*
At nunc divitibus cœnandi nulla voluptas:
Nil Rhombus, nil dama ſapit, putere videntur
Unguentum atque roſæ, ———

Of the medicines.

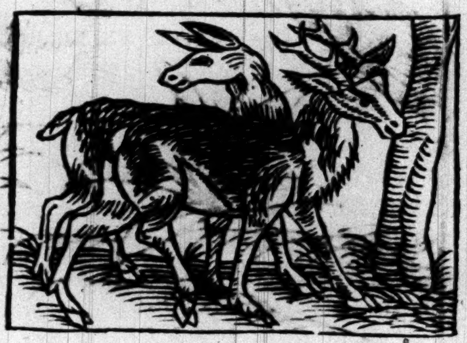
The dung or fime of this beaſt mingled with oil of Myrtles, increaſeth hair, and amendeth thoſe which are corrupt. If the tongue hereof be perfumed under a leech or tick that ſticketh in the throat of man or beaſt, it cauſeth the leech to fall off preſently; and the powder of ſuch a tongue helpeth in a Fiſtula; ſome of the late writers do preſcribe the fat of a Moul, of a Deer, and of a Bear mingled together to rub the head withall for increaſe of memory.

Of the ſecond kind of Deer the *ROE-BUCKE*.

The ſeveral names.

THere is ſo great difference among writers about the name of this beaſt, that it is a difficult and hard matter to ſet down certainly, in the prime and original tongues, the true and perfect denomination thereof, yet I will endevour to go as neer the mark as can be, by laying together all the probabilities that I find in other, or obſerve by my ſelf. To begin then with the ***Hebrew*** as the fountain of all the reſidue, they call it ***Zebi***, and the feminine hereof *Zebiah*, and therefore in Deut. 14. it is permitted to the *Jewes* to eat; and the plurall of the Maſculine is *Zebaim*, and of the feminine *Zebaoth*. The *Chaldee* tranſlation calleth it ***Thabia***, which in the Acts of the Apoſtles cap. 9. is called ***Tabitha***, and is interpreted *Dorcas*, a Roe: and ſure it is probable that the ***Hebrews*** ſo call a Roe, becauſe of the outward beauty thereof, being full of ſpots upon a ground or skin of another colour, ſhewing with great delight pleaſant to the beholder, which cauſed ***Martial*** to write this Diſtichon;

The repreſentation both of male & female.

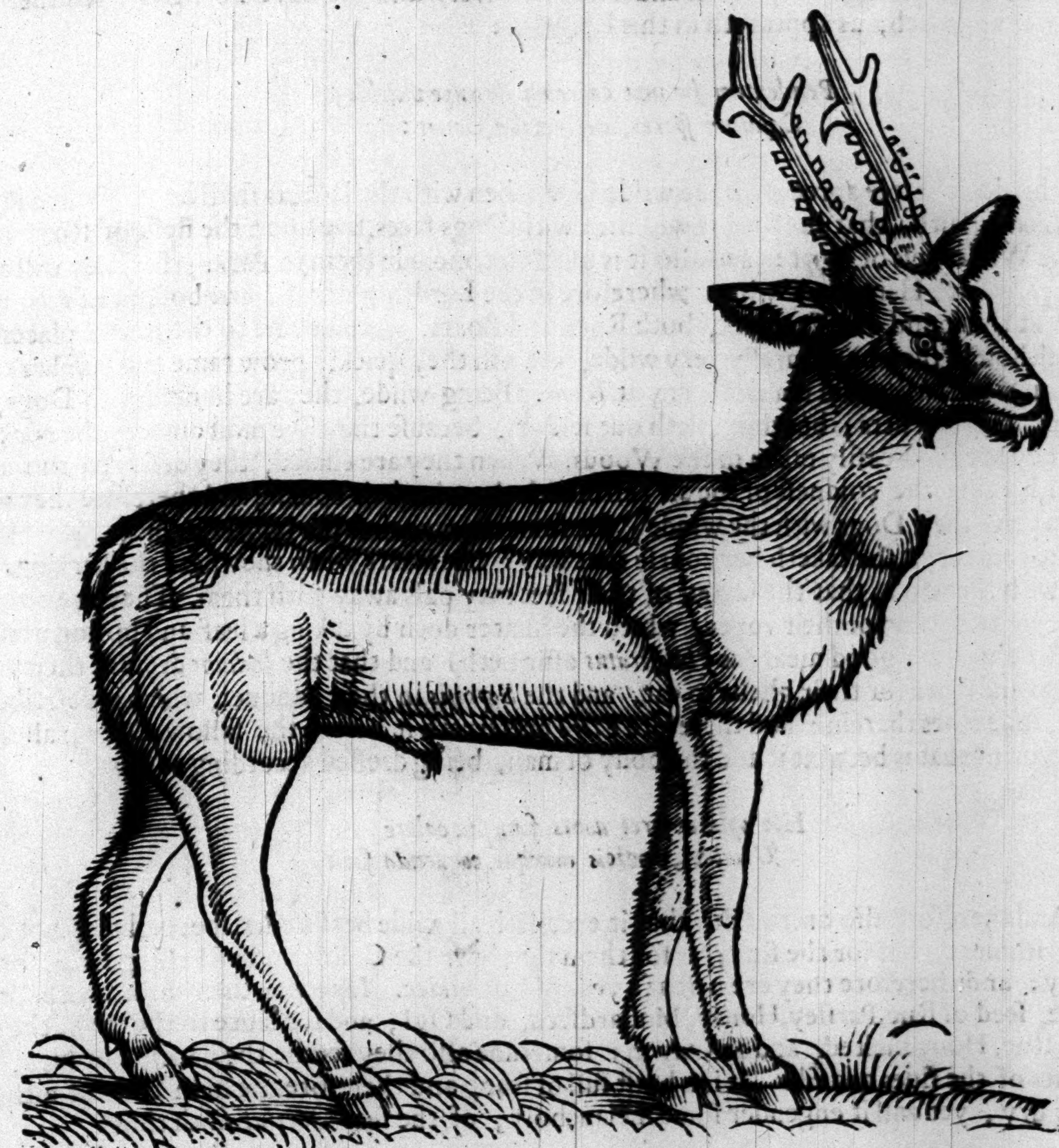


Delicium parvo donabis dorcada nato,
Jactatis ſolet hanc mittere turba togis.

The *Perſians* call this beaſt *Abu*. The *Arabians*, *Thabiu*, which cometh neer to the *Chalde* word; the *Germans Reeh* or *Rech*, and the male *Rech-bocke*, and the female *Rech-gieſe*; the *Illyrians*, *Serna* or *Sarna*; the *French*, *Chireau*, and *Chevreulſauuage*. The *Spaniard*, *Zorito*, or *Cabronzillo-montes*; the *Italians*, *Capriolo*, and *Cauriolo* for the male, and *Capriola*, and *Cauriola* for the female.

The *Grecians*, *Dorcas*, as the *Septuagint* do every where tranſlate, which *Strabo* termeth corruptly, *Zorces*, alſo *Dorx*, *Kemas*, *Nebrous*, and vulgarly as at this day *Zarkadi*; and *Dorcalis*, *Dorcadion*, for a little Roe. The *Latins* do alſo uſe the word *Dorcas* in common with the *Grecians*, and beſide ***Caprea*** and ***Capreolus*** for a little Goat, for I do not think that any learned man can find any difference betwixt *Caprea* and *Capreolus*, except in age and quantity. The reaſon of theſe two latter names is, becauſe of the likeneſs it hath with a Goat, for Goats, as we ſhall ſhew in their deſcription, have many kindes diſtinguiſhed from one another in reſemblance; but in the horns a Roe doth rather reſemble a Hart; for the female have no horns at all.

The reaſon of the *Latine* name.



These beaſts are moſt plentiful in *Africk*, beyond the Sea of *Carthage*; but they are of another kinde then thoſe which *Ariſtotle* denyed to be in *Africa*: there are alſo in *Egypt*, and in *Germany*, and in the *Helvetian Alpes*. Likewiſe in *Catadupa* beyond *Nilus*, in *Arabia*, in *Spain*, and in *Lycia*; and it is to be obſerved, that the *Lycian* Roes do never go over the *Syrian* Mountains. *Ælianus* doth deliver theſe things of the *Lybian* Roes, which for the colour and parts of their body may ſeem to belong to all. They (ſaith he) are of an admirable velocity or ſwiftneſs; but yet inferiour to the *Lybian* Horſes, their belly is parted with black ſtrakes and drops, and the other parts of their body are of a red yellowiſh colour, they have long feet, but longer ears, their eyes black, and their horns are an ornament to their heads.

Avicen.
The Countries breeding Roes.
Marcellus.
Albertus.
Pliny.
Strabo.
Their nature and ſeveral parts.

Their ſwiftneſs doth not only appear upon the earth, but alſo upon the waters; for with their feet they cut the waters when they ſwim as with Oares; and therefore they love the lakes and ſtrong ſtreams, breaking the floods to come by freſh paſture, as Sweet-ruſhes and Bul-ruſhes. Their horns grow only upon the males, and are ſet with ſix or ſeven branches, but the females have none, and therefore alſo they differ in horn from the Fallow-deer: ſo as they cannot be called *Platycerotæ*, for their horns are not palmed like a hand, and although they be branchy, yet are they ſhorter: they differ not much from the common Deer, but in their horn: and whereas the horns of other beaſts are hollow toward the root, whereunto entereth a certain bony-ſubſtance; the horns of theſe (as alſo of the vulgar Buck and the Elk) are ſolid, without any ſuch emptineſs; only they are full of pores. It hath alſo been believed, that a Roe doth not change her horns, becauſe they are never found; whereas in truth, they fall off yearly as doth a Harts, but they hide them, to the intent they ſhould not be found.

Stumpſius.
Albertus.
Pliny.
Pauſanias.
Bellonius.
Edlebach.

It hath likewiſe been thought, a Roe was called in *Greek*, *Dorcas*; becauſe of the quickneſs of her ſight; and that ſhe can ſee as perfectly in the night as in the day; and not only for her ſelf, but the learned Phyſitians have obſerved a certain viſcous humor about her bowels, which being taken forth, and anointed upon a mans eyes, which are dark, heavy, and neer blinde, it hath the ſame effect to quicken his eye-ſight. It is alſo ſaid of them, that they never wink, no not when they ſleep;

Of their eye-ſight.
Origen ſuper Cant.
Textor.
Pliny.

Cardinus.

ſleep, for which conceit, their blood is preſcribed for them that are purblinde. The tail of this beaſt is ſhorter and leſſer then is the fallow-Deers, inſomuch as it is doubtful whether it be a tail or not.

The place of their abode.

They keep for the moſt part in the Mountains among the rocks, being very ſwift, and when they are purſued by Dogs, (*Martial* ſaith) they hang upon the rocks by their horns to deceive the Dogs, after a ſtrange manner ready to fall and kill themſelves, and yet have no harm, whither the Dogs dare not approach, as appeareth in this Epigram:

Pendentem ſumma capream de rupe videbis,
Caſuram ſperes, decipit illa Canes:

Yet this doth better agree with the wilde Goat then with the Roe, as ſhall be manifeſted in due time.

Their concord with other beaſts.
Columella.

Ælianus ſaith, that the *Cynoproſopi*, men with Dogs faces, live upon the fleſh of Roes and Bugles, in the Wilderneſs of *Egypt*: and alſo it is uſual to conclude them in Parks; for they will agree very naturally with Hares and Swine: wherefore in the Lordſhip which *Varro* bought of *Piſo*, it was ſeen how at the ſound of a Trumpet, both Roes and Boars, would come to their uſual places for meat: and although they be naturally very wilde, yet will they quickly grow tame and familiar to the hand of man; for *Blondus* did nouriſh many at *Rome*. Being wilde, they are hunted with Dogs, ſhot with Guns, taken in nets; but this falleth out ſeldom, becauſe they live moſt among the rocks.

Of their taking.
Belliſarius.

They are moſt eaſily taken in the Woods. When they are chaſed, they deſire to run againſt the wind, becauſe the coldneſs of the air refreſheth them in their courſe; and therefore they which hunt them place their Dogs with the winde; for ſometimes againſt the hunters mindes, do what they can to the contrary, ſhe taketh her courſe that way: but Harts when they hear the barkings of Dogs, run with the wind, that the ſavour of their feet may paſs away with them. They are often taken by the counterfeiting of their voyce, which the hunter doth by taking a leaf and hiſſing upon it.

Creſconius.
The uſe of their fleſh.

They are very good meat (as *Philoſtratus* affirmeth) and that the *Indians* dreſs at their feaſts whole Lyons and Roes for their gheſts to eat, and the *Sophiſts* in their banquet, which is deſcribed by *Atheneus*, had Roes therein: and therefore *Fiera* preferreth it before the fallow-Deer, alleadging the agreement that is betwixt it and the body of man, being dreſſed according to Art.

Simion Sethi.
Avicenna.

Hic optata feret nobis fomenta calore
Uda levi, modicis moxque coquenda focis.

Trallianus.

And therefore alſo affirmeth, that it excelleth all wilde beaſts whatſoever, being not only fit for nouriſhment, but for the ſick; as for them that have the Colick, or the Falling Evill, or the Tympany: and therefore they are beſt at a year old, or under. Likewiſe their broth with Pepper, Lovage, ſeed of Rue, Parſley, Honey, Muſtardſecd, and Oyl; and for ſauce to the meat, they take Pepper, Rue, Hony melted, and an Onyon: ſometime alſo they ſeethe the hanches or hips, and make Paſties of the ſides and ribs. It is a beaſt full of fear, and therefore the fleſh thereof although it be very dry, yet will it engender ſome melancholy; of the fear *Martial* ſaith thus:

Apicius.
Of the diſpoſition and paſſion.

Tam diſpar aquilæ columba non eſt,
Ac dorcas rigido fugax leoni.

As the Dove from the Eagle, and the Roe from the Lyon, which afterward grew into a Proverb. It hath alſo ſome Epithets among Authors, which do confirm their diſpoſition full of fear: as flying, weak, wanton, and ſuch like; yet will they fight one with another ſo fiercely, that ſometime they kill each other.

Their enemies in nature.
Sacrifices of Roes.
Pauſanias.
Ælianus.

They fear alſo the Woolfs, whereof came the proverb, that firſt of all the Roes will be joyned to the Woolfs, to expreſs an incredible matter. They have alſo been uſed for Sacrifice to *Diana*, for the *Saphriæ* women in *Patras*, did lay upon her great Altar whole Harts, Bores, Roes, and other beaſts alive: and the *Coptitæ* did eat the males; but religiouſly worſhipped the females, not daring to eat them, becauſe they believed that *Iſis* loved them dearly.

Of theſe beaſts came the Iſlands *Capreæ* beyond *Surrentum* in *Campania*, where *Tiberius* had a famous Caſtle, and was ennobled by his preſence; but ſince the decay thereof, it is now celebrated for the multitude of quails that are found therein.

The medicines ariſing from a Roe.

The remedies or medicines coming from this beaſt are theſe: firſt, the fleſh of them eaten, is good againſt all pains in the ſmall guts, for it dryeth and ſtayeth the belly. *Pliny* affirmeth, that the teeth of a Dragon tyed to the ſinews of a Hart in a Roes skin, and wore about ones neck, maketh a man to be gracious to his Superiors, and them to be favourable and pitiful to him in all his ſupplications; and if the white fleſh in the breſt of the *Hiana*, & ſeven hairs thereof with the genital of a Hart, be tyed in a piece of Roes skin, and hanged about a Womans neck, it maketh that her womb ſhall ſuffer no abortments; but theſe things are trivial, and not to be believed but at pleaſure. I know that the tail of a Dragon tyed to the Nerves of a Hart in a Roes skin, the ſuet of a Roe with Gooſe-greaſe, the marrow of a Hart, and an Onyon, with Rozen, and running Lime, do wonderfully help the falling Evill, (if it be made into a plaiſter.)

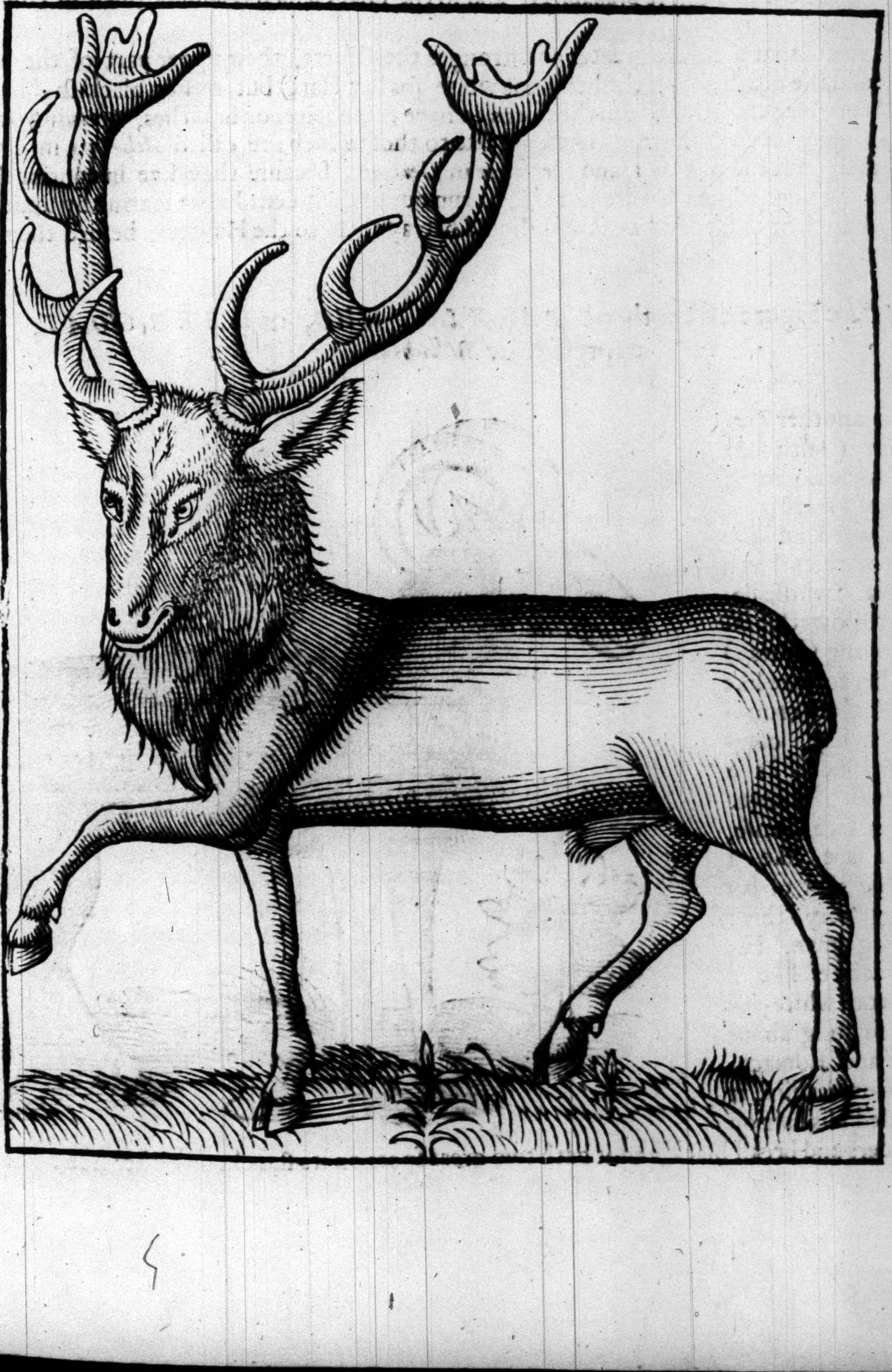
Sextus ſaith, that if one give the brain of a Roe drawn or preſſed through a ring to an Infant, it will preſerve him for ever from the Falling ſickneſs and apparitions. The liver of a Roe ſod in ſalt water, and the eyes of a purblinde man held over the fume or reek thereof, are cured of their blindeneſs: and ſome ſeethe it in a little cup, and anoint the eyes with the ſcum or froth coming from it. The ſame liver being burned to powder, and the duſt caſt on a man bleeding, ſtayeth the iſſue or flux. The gall of this beaſt mixed with Wine, and the Meal of Lupines the weight of a groat, and Hony, take away the ſpots of the face: and the ſame gall mixed with water, helpeth a Sun-burned-face, and freckles: The ſame with Hony Attick, taketh away the dimneſs from the eyes, and with the juyce of a gourd anointed upon the eye-brows, cauſeth that where the hair hath been pulled off, that it never ſhall grow again; and this gall is alway the better for the age thereof, and as *Hippocrates* did preſcribe, it muſt be kept in a ſilver pipe or box.

For the tingling of the ears, take with this gall the Oyl of Roſes, with the juyce of an Onyon beaten together, and inſtilled warm into the ears for a preſent remedy: ſo alſo, with the Oyl of Roſes only, it helpeth the pain in the teeth; and with the Hony Attick, all ſwellings or pains in the jaws or chaps, putting thereto Myrrhe, Saffron, and Pepper. The ſame gall with a little Hogs-bread, and the *Sextus.* powder of burnt Allum with Aniſe-ſeed, made into a Suppoſitory, procureth looſeneſs, if the party have not the Hemerrhoides.

Alſo the gall taken with Hony, and the juyce of Eglantine, cureth the exulceration of the virile *Aetius.* member by anointing it. The Spleen being drunk, helpeth windineſs, and the milt is commended againſt the Colick and biting of Serpents.

Againſt the Jaundiſe they take the dung of a Roe dryed and ſifted, and drink it in Wine; the ſame *Galen.* alſo ſo drunk cureth the Ague; and becauſe the Roe-buck doth wonderfully love his female, there be ſome that affirm, that if a woman eat the bladder of a Roe, it will likewiſe make her husband to love her exceedingly.

Of the firſt kinde of *TRAGELAPHUS* which may be called a *DEER-GOAT*.



There

Plinius.
Of the generation of this beaſt.
Athenæus.
The Countries of this beaſt, and the name hereof.

THere is another kinde ſo like a Deer (although conceived of a Buck-Goat and a female Hart) that I cannot but expreſs the figure and brief narration thereof (as is in the foregoing page.) It is like a Deer (except the beard and briſtles growing about the ſhoulders) and *Pliny* affirmeth, that they are found about the river *Phaſis*, in *Arabia* and *Aracbote*, which is a City of *India* ſo called of *Arachotus*, a river iſſuing from *Caucaſus* which the *Grecians* call *Tragelaphos*, and the *Germans*, *Ein Brandhirſe*; and ſome think this beaſt to be mentioned by the name of *Ako*, in Deut. 14. This doubtleſs is the ſame beaſt which *Ariſtotle* calleth *Hippelaphus*, becauſe he attributeth the ſelf ſame things to it that *Pliny* aſcribeth to this, both for the beard, the briſtles, and deep hair about the ſhoulders, which hangeth down like the mane of a Horſe.

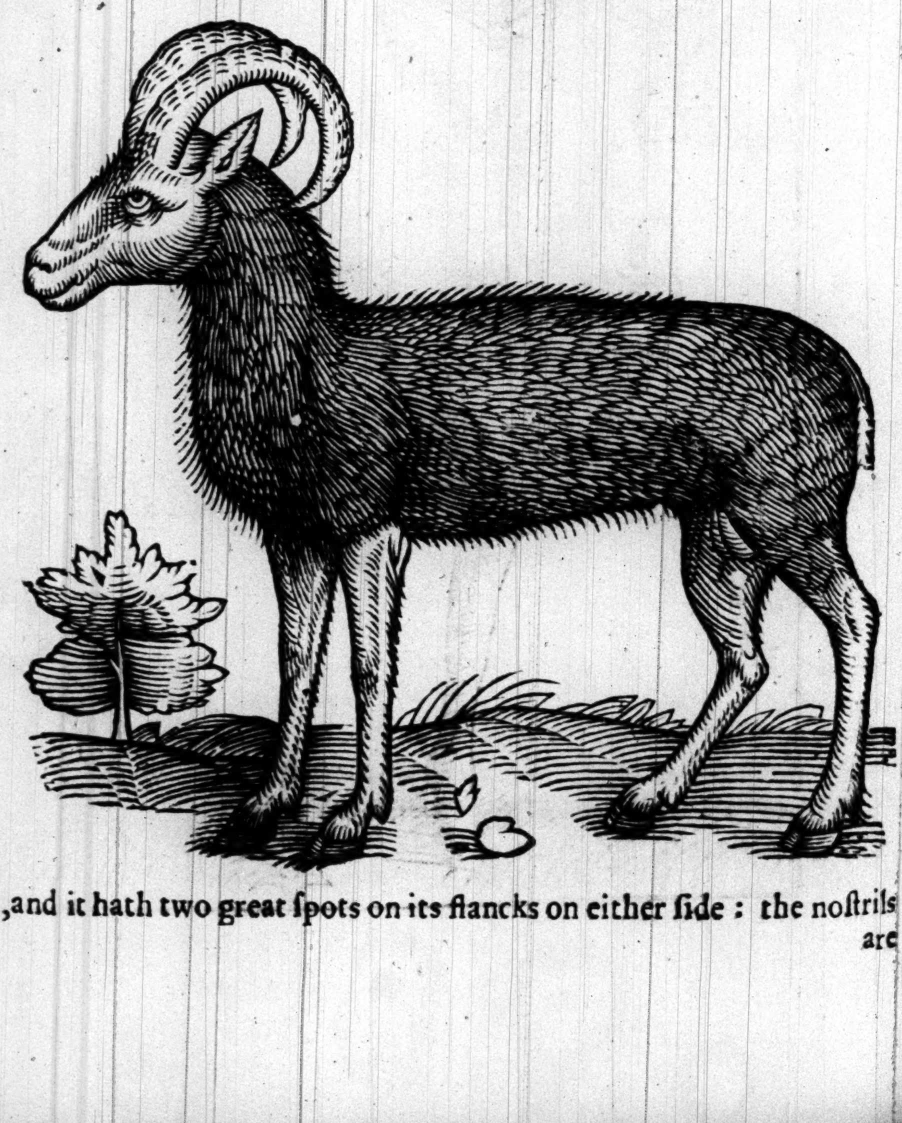
Xenophon.
Plutarch.
Cælius.
Of the parts.
Of the Countries of this beaſt.

The ſimilitude both in proportion and quantity holdeth with a Hart in the feet which are cloven, and that the female thereof doth want horns. The horns of the male are like the horns of a Roe. Therefore howſoever ſome have imagined that there is no ſuch beaſt to be found in the world, they are rather to be pitied then confuted, for it is not to be doubted, that neither the Ancients, nor other, ever have ſeen all the divers and marvailous ſhapes of Beaſts, which are to be found in many remote and far diſtant places of the world, eſpecially in *Arabia* and *India*, where are many Deſerts; and therefore the reaſon why they affirm this, is, *becauſe they never ſaw any ſuch*, and ſo it is to be underſtood: for the rare pictures of theſe beaſts called in ancient time *Canathra*, whereupon children were carried in Pageants and ſhews, gave them occaſion to think, that theſe were but mens deviſes, and that God never ordained ſuch creatures. *Georgius Fabritius* which ſent me this picture, doth among other things write unto me very probably, that this kinde is only diſtinguiſhed from other in form, name, and ſtrength, and not in kinde: and this being more ſtrange and leſs known among men, was called by the *Grecians*, *Tragelaphus*; being greater then the vulgar Deer, deeper haired, and blacker in colour, and this (ſaith he) is taken in the Ridings or Forreſts of *Miſena*, bordering upon *Bohemia*, and the common ſort of hunters hold opinion, that by reaſon it loveth to lie where Coals are made, and in their duſt, feeding upon ſuch graſs as groweth in thoſe places, that therefore the *Germans* call it *Brandhirze*, and ſo the Foxes which reſemble them in colour, are called *Brandfuſche*.

Agricola.
Of their ſtrength and colour.
A ſecret in their paſſion.

It is for certain that theſe are greater and ſtronger then Harts, their upper part of the back being black, and the neather neer the belly not white (as in a Hart) but rather blackiſh; but about his genitals very black. I have ſeen the horns to have ſeven ſpires or branches, growing out of one of them, being palmed at the top. Theſe are like to thoſe which are called *Achaines* in *Greek*, by reaſon of their pain and ſorrow: and *Kummerer* in *German*, becauſe they live in continual ſorrow for their young ones, while they are not able to run out of their dens, belike fearing by ſome inſtinct of nature, leſt their tender and weak age, ſhould betray them to the Hunters, before they be able to run away.

The Figure of another *TRAGELAPHUS*, or *DEER-GOAT*, expreſſed by *Bellonius*.



The deſcription of his ſeveral parts.

THere is another *Tragelaphus* (ſaith he) whereof I finde no name among the *French*: it wanteth a beard, and the hair thereof reſembleth an *Ibex-Goat*, (whoſe deſcription followeth afterward among Goats:) the horns hereof are like a Goats, but more crooked and bending, compaſſing behinde, as a Rams do, which he never loſeth. His face, noſe, and ears, are like a Sheeps, the skin of his cods being very thick and hanging down. His legs are white like a Sheeps: his tail white; his hairs are ſo long about his neck and ſtomach, that you would think it were bearded. His hair on the ſhoulders and breaſt black, and it hath two great ſpots on its flancks on either ſide: the noſtrils are black, the beak or face white; ſo alſo is the belly beneath, but the deſcription hereof ſeemeth rather to agree with a *Pygargus*, or *Muſmon*, of which I ſhall ſpeak afterward.

I do rather approve the relation of another of this kinde, which was ſent unto me by that moſt learned *Engliſh* Phyſician *Iohn Cay*, which as he writeth unto me, was brought in the year 1561. out of the Countrey of *Mauritania*, which was cloven-footed, and liveth for the moſt part in the Mountain parts of that Countrey, being in quantity betwixt a fallow-Deer and a Hart, the body more like a Hart, and the ſide branded and hanging down: a ſhorter and thick neck, the colour in the Winter black, and red, ſet one with another; the beard like a Goat, but more divided and turned backward; his hair very long, even to his knees, a mane full of briſtles, ſtretched out in length through his whole neck, but eſpecially about the top of his ſhoulder-blades, where it ſtandeth like bunches, being in colour darker then in other parts of the body; and the hinder legs are covered with longer and harder hairs down to the paſtern, (as I think) for no other cauſe but to defend them from harm in his leaping: and the hoof of this beaſt was more ſtrange (for being cloven, as was ſaid before) the outward hoof in his fore-legs is longer and greater then the inward, and contrary in the hinder: and the inward clove thereof is longer and greater, and the outward ſmaller and ſhorter; ſo as on either ſide you would think one of them was the hoof of a Goat, and the other of a Hart, both of them hollow and without ſoals; whereof I can give no other reaſon, then the pleaſure of nature, which hath ſo provided, that whereas this beaſt liveth among the rocks, and ſharp places of the Mountains, his foot-ſteps are by his hollow hoofs more firm and ſtable, becauſe by that means, the ſtones and ſharp-pointed rocks entreth into them to ſtay them up from ſliding: but it is more ſtrange in the females hoofs, for they have upon the top and upper face of them three or four pleaſant impreſſions, (as it were of carved or imbroydered flowers, if a man mark them earneſtly) which I think are given unto them only for ornament and delight.

A ſecret in the hoof.

Either ſex looſe every year their hoofs, and Harts do their horns, that nature may ſhew their reſemblance in their feet to a Hart, as he doth in their head to a Goat. His ear is ſhort like a Goats, but his eye, genital, ſtones, and tail, like a Harts, though ſomewhat ſhorter. The horns like a Rams, crooked and diſtinguiſhed in the middle, by a black line all their length, which is two *Roman* feet and one finger, and in compaſs at the root, one foot, one palm and a half, ſtanding one from another, where they differ moſt not above one foot, three palms, one finger and a half. The rugged circles going about them, toward the top are bunchy, and toward the bottom or root they are low, with beaten notches or impreſſions.

They are not at the top diſtant one point from another, above one foot and a palm. The length of their face, from the Crown to the tip of their noſe, one foot and three fingers: the breadth in the fore-head, where it is broadeſt, two palms and one finger.

Their quantity in length and breadth.

The height of this beaſt not above three foot and a half, except where his mane ſtandeth, and the whole length hereof from the crown of the head to the tail is four feet and a half and two fingers.

It hath only teeth beneath on the neather chap, and thoſe in number not above ſix, neither did I obſerve any defect in them. It cheweth the cud like other cloven-footed beaſt. The noſtrils are black, from whom the upper lip is divided by a long perpendicular line. It is a gentle, pleaſant & wanton beaſt; in the diſpoſition rather reſembling a Goat then a Hart, deſiring the ſteepeſt and ſlipperyeſt places whereon it leapeth, and from whence (it is reported) that it doth caſt down it ſelf headlong upon the horns naturally, that by them it may break the violence of his fall or leap, and then ſtayeth his body upon the fore-knees.

Of the deſcription of this beaſt.

It will run a pace, but it is moſt excellent in leaping, for by leaping it aſcendeth the moſt higheſt Mountains and Rocks. The females are greater then the males, but not in horn or hair, it eateth Graſs, Oats, Cheaſil, Hay, and Bread, they bring forth twins every time: and this we call in *England a Barbary Deer*. Thus far Doctor *Cay*.

Of the *HART* and *HINDE*.

THe male of this beaſt is called in *Hebrew*, *Aial*, Deut. 14. and the *Arabians* do alſo retain that word in their tranſlations; the *Perſians* call him *Geuazen*; the *Septuagint*, *Elaphos*; the *Grecians* at this day *Laphe Pelaphe*; and Saint *Jerom* for the *Latines*, *Cervus*; the *Chaldees*, *Aielab*; the *Italians*, *Cervo*; the *Spaniards*, *Ciervo*; the *French*, *Cerf*; the *Germans*, *Hirtz*, or *Hirs*, and *Hirſch*; the *Flemmings*, *Hert*; the *Polonians*, *Gelen*; the *Illyrians*, *Ielii*, *elii*. The female or Hinde likewiſe termed in *Hebrew*, *Aial*; and ſometime *Alia*, and *Aielet*; the *Latines* and *Italians*, *Cerva*; the *Spaniards*, *Cierva*; the *Germans*, *Hinde*, and *Hindin*; and the *Germans* more ſpecially, *Hin*, and *Wilprecht*; the *French*, *Biche*; and the *Polonians*, *Lanii*. The young Fawns or Calfs of this beaſt they call in *Latine*, *Hinnuli*; the *Grecians*, *Nebros*; the *Hebrews*, *Ofer*; the *Germans*, *Hindcalb*.

The names of a Hart.

The names of a Hinde.

The names of a Hinde-calf.

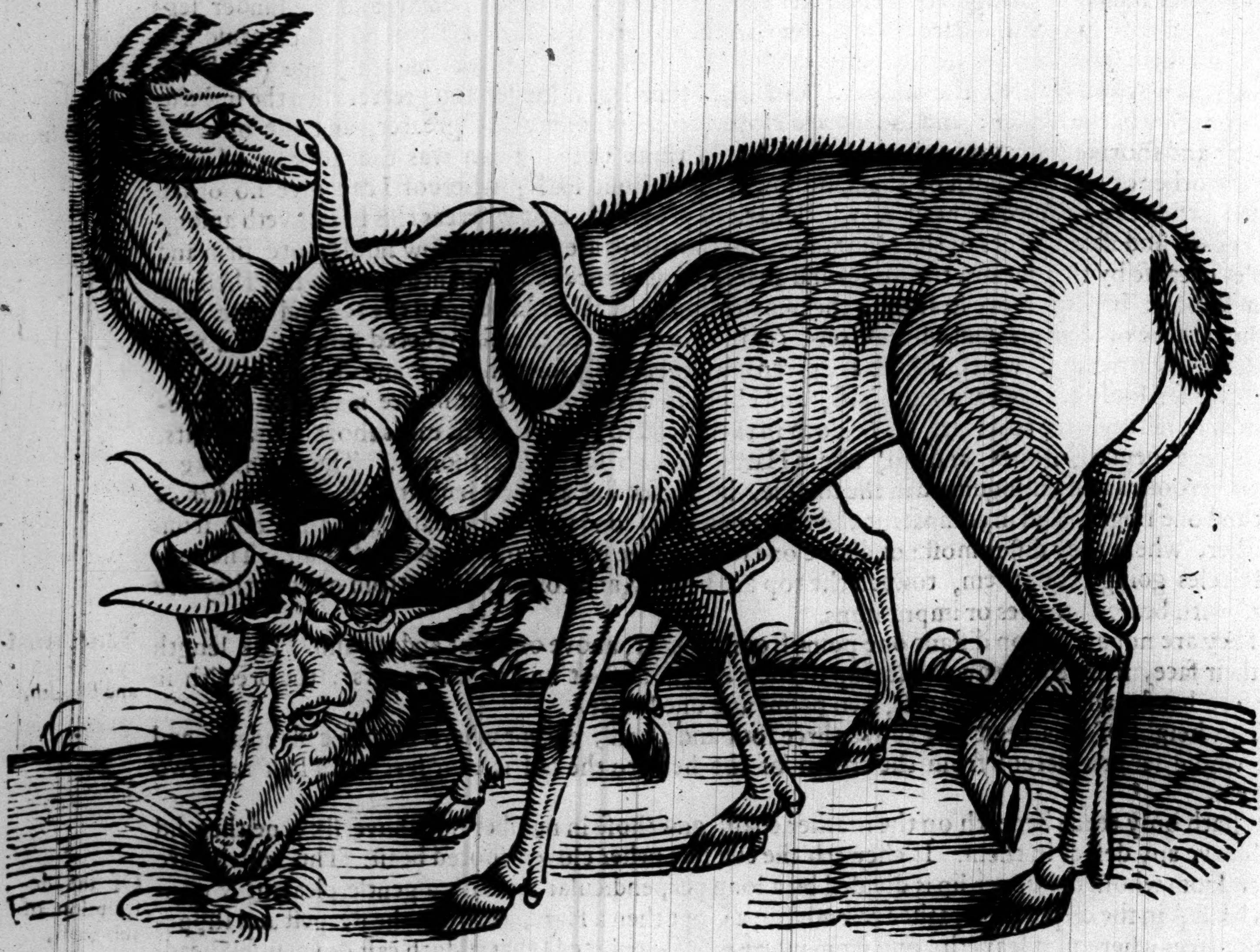
Alſo it is not to be forgotten, that they have divers other names, to diſtinguiſh their years and Countries, as for example: when they begin to have horns, which appear in the ſecond year of their age like bodkins without branches, which are in *Latin* called *Subulæ*, they are alſo called *Subulones*; for the ſimilitude they have with Bodkins: and the *Germans* call ſuch an one *Spirzhirtz*, which in *Engliſh* is called a *Spittard*; and the *Italians*, *Corbiati*; but the *French* have no proper name for this beaſt that I can learn, untill he be a three yearing, and then they call him (*ein Gabler*) which in *Latine* are called *Furcarii*.

Ariſtotle.
Pliny.
Of Spittards and Subulons.

Of Brocards.

The quantity of Brocards.

And indeed I was once of this opinion, that theſe **Subulones** were only two-yearing Harts, untill I conſulted with a *Savoyan* of *Seguſium*, who did aſſure me from the mouths of men trained up in hunting wilde Beaſts from their youth; that there are a kinde of **Subulones**, which they call alſo **Brocardi**, with ſtraight and unforked horns except one branch, in the Mountain of *Jura* near the lake *Lemanus*, and that theſe alſo do live among other Harts; for there was ſeen neer a Monaſtery, called the *Roman* Monaſtery, by certain Hunters, in the year 1553. a vulgar Hart with branched horns, and his female; and likewiſe with a **Subulon**, or **Brocarde**, which when in purſuit he was conſtrained to leap from rock to rock, to get to the water, he brake his leg and ſo was taken. Theſe **Brocardi** are as great in quantity as other vulgar Harts, but their bodies are leaner, and they ſwifter in courſe.



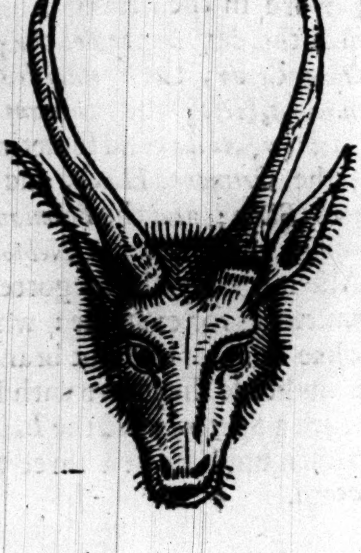
Of their horns.

They have but one branch growing out of the ſtem of their horn, which is not bigger then a mans finger, and for this cauſe in the rutting time, when they joyn with their females, they eaſily overcome the vulgar Hart, with his branched and forked horns. The Hunters call this **Brocard** the ſhield-bearer to the reſidue; for by him they are delivered being hunted: for whereas it is the nature of the vulgar Hart, to get into ditches, and hide himſelf in hollow places when he heareth the Hounds, this Beaſt never coveteth any ſecret place to cover himſelf, but runneth ſtill in the ſight of Dogs, who leave the other that hide themſelves, becauſe they keep this on foot: and ſo when the Hunters are paſſed by the lurking Harts, they return back again, being ſafe both from Nets and Dogs, while the poor *Brocard* is chaſed unto death.

Theſe being old, are alſo known by their teeth and horns, for they never change them; but it is queſtionable, whether they have any Hindes or females, although my Author informeth me, that he heareth there be alſo Hindes with horns like theſe, being not above one finger long; which if it be true, it is not improbable that theſe are the females of that kinde: whereunto I yeeld more eaſily, becauſe the vulgar Hindes will not admit copulation with the **Brocard**, except they be conſtrained, and as it were raviſhed againſt their will, from whence it cometh that they are ſo rare and ſeldom bred: their fleſh is much ſweeter then the vulgar Harts.

I have therefore here expreſſed the figure of the head of this Beaſt with his horns, which is alſo called **Anamynta**, or a **Burgundiau Brocard** whoſe horns are at the longeſt about eighteen inches long, and at the ſhorteſt about nine inches, whereof that part which cleaveth to the head is bunchy and indented; the longeſt as they grow in length,

The figure of the face and horns.



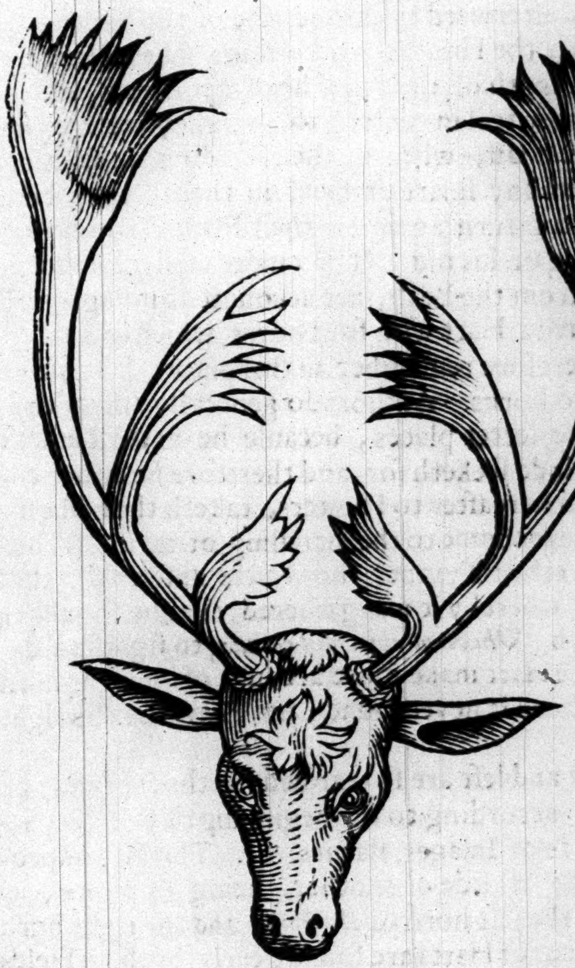
length, do more and more ſtand out one from another, turning up at the top like a bow, but the leſſer do not ſtand out ſo far, and bend very little at the point; and whereas in the vulgar Harts the root of the horn is but in a round circle, as it were faſtened upon the skull of the Beaſt, in this the bony roots lie within the skins much deeper, as may be eaſily diſcerned by comparing both together.

The reaſon why I call this *Burgundiau* Hart, or *Subulon Anamynta*, is, becauſe it not only wanteth the manifold branches of vulgar Harts, but that alſo which is called *Amynta*.

There are alſo another ſort of Harts called *Achaini*, bred in *Creet* neer *Achaea*, whereas in all other parts of *Creet* there are no Harts, whereof it is affirmed by *Gaza*, that there was one of them which had a bough of green Ivie growing in his horns, it was conjectured that when it was young, ſome ſprig of that Ivie was taken in a ſlifter of the horn, which by reaſon of ſome nouriſhment it found in the horn natural to that tree, being like a rocky ſubſtance, it there grew to more perfection. Theſe are alſo called *Spathenae*, although that term be alſo given unto vulgar Harts, to ſignifie their full age; yet ſome are of opinion, that this *Achaian* Hart was but an invention or figment made in bread; for there was in antient time a kinde of loaf called *Achaines* in the likeneſs of a Hart.

Ariſtotle.
Of the *Achaian* Harts.
Gaza.
A miracle in the horn of this beaſt.
Athenaeus.

The picture of another face and horns.



I received alſo of that learned man *Iohn Cay*, another head out of *England*, which he conjectureth to be the head of the palmed Buck, as it was called by *Iulius Capitolinus*, which I do not take to differ from the fallow-Deer: and yet becauſe this ſeemeth to be of the moſt excellent kinde, I have thought good to expreſs it in this place, being far different from all other horns of this kinde of Beaſts, and more beautiful.

Harts are bred in moſt Countries, but the Ancients do celebrate and prefer thoſe of *Britain* before other, where they are of divers colours both white and black, as *Pauſanias* affirmeth. In *Oedor*, a region of *Aſia*, toward the Northern Ocean, they ride upon Harts; likewiſe there are Harts in *Scythia*: and the people cald *Medit*æ, which are ſubject to the Kings of *Tartaria*, make their Harts ſo tame, that they alſo ride upon them: there are none in *Creet*, except in the region of the *Cydonites*. There are alſo in the Woods of *Helvetia*, but not ſo many as in time paſt, becauſe *Democraties* do not nouriſh game and pleaſures like unto Monarchies, and therefore they are daily killed by the vulgar ſort, there being no law againſt it.

Of the regions breeding Harts.
Solinus.

The Harts of *Helleſpont*, and about *Arginuſſa*, have one of their ears ſlit or cut aſunder by nature in their dams belly; and therefore they never go over the Mountains into other regions: (as indeed it is the property of all Harts to love their native ſoils above all other places.) There is a City called *Dora*, in *Aſſyria*, near the banks of *Euphrates*, where are many flocks of Harts, of whom many times ſome are ſlain with Darts, and others as they ſwim away to their accuſtomed ſolitudes are oppreſſed in the water by the weight of Oares, and ſo taken. They are for the moſt part ſand-coloured, and intermingled with ſome white ſpots, eſpecially the Hindes and their Calves, and ſometimes milk-white, which happeneth unto them by ſome defect in their nouriſhment before they be calved; and for natural imbecillity: ſo have I ſeen white Bears, Hares, Quails, Partridges, and Swallows.

Ælianus.
Ariſtotle.
A ſecret in the ears of Harts.
Ammianus.
A Hiſtory.
Pollux.
Varinus.
Of the colour.

When *Apollonius* and his Colleagues travelled by *Paraca*, a City of *India*, they ſuddenly heard a noiſe like the ſound of a pipe, and while they looked about to ſee what it ſignified, they perceived that it was the pipe of a Keeper or Forreſter, which governed a whole flock of white Harts: ſuch an one was the Hart of *Sertorius* that noble Captain, whereby he led his Army, as they were perſwaded by it, who affirmed that it was a *Spaniſh* Prophet or Wizard given to him by a certain *Luſitanian*, whom he took in an Iſland of *Portugal*; ſaying moreover, that ſhe was inſpired by *Diana*, and that ſhe had authority from that Goddeſs to admoniſh him, and make the hearts of his Souldiers cleave faſt unto him; and therefore if at any time he miſcarryed in his proceedings, he could eaſily pacifie them from mutinies, in ſaying, that his Hart ſet him upon that enterprize, ſo putting off the fault cunningly from himſelf to the beaſt for fear of defection, wherefore alſo theſe were uſed in the *Bacchanals* of *Cracovia*, and their fleſh being ſofter, is peculiarly tearmed by the *French*, *Venaiſon*. Theſe do excell all other in the Beauty of horns, which are very high, yet grow they not to their bones or skalps, but to their skin, branching forth into many ſpeers; being

Ariſtotle.
Buellius.
Philoſtratus.
A Hiſtory.
Plutarch.
Gellius.
Of their horns, and the beauty of them.

ſolid throughout, and as hard as ſtones, and fall off once every year, but if they remain abroad in the air, where ſome winde and rain fall upon them, ſo as now they are wet, and anon dry again, they grow as light as any vaniſhing or ſofter ſubſtance, as I have proved by experience, findeing ſome which have been loſt by them in the Woods: wherefore I gather that they are of an earthly matter, concrete and hardned with a ſtrong heat made like unto bones. It muſt be underſtood that the males only are horned, and yet have they ſmall benefit by them, becauſe (as I ſaid) they grow but within their skin, and theſe alſo they loſe every year in the Spring time. At one year old they have nothing but ſmall bunches, as it were ſignifications of their horns to come growing on their head; at two years old they appear more perfectly, but ſtraight and ſimple; at three years they grow forked into two ſpeers, at four into three, and ſo increaſe every year in their branches till they be ſix, and above that time you cannot certainly diſcern their age by their head, for their horns or ſpeers grow not more in number, although their years make them greater in quantity: yet the old Harts do want theſe two branches, which the *Græcians* call *Amynterai*, and the *Latines*, *Adminicula*; becauſe they firſt come forth: and I have heard there were Harts horns in an Apothecaries ſhop of *Antwerp*, which had every one fifteen branches upon one ſtem, which if it be true, it goeth beyond all experience. Every year in the month of *April*, they looſe their horns, and ſo having loſt them, they hide themſelves in the day time, inhabiting the ſhadowy places, to avoid the annoyance of flyes, and feed only during that time in the night. Their new horns come forth like bunches at the firſt, and afterward by the increaſe of the Suns heat, they grow more hard, covered with a rough skin, which the Hunters for honours ſake call a Velvet head, and as that skin dryeth, they daily try the ſtrength of their new head upon trees, which not only ſcrapeth off the roughneſs, but by the pain they feel in rubbing them, they are taught how long to forbear the company of their fellows; for at laſt, when in their chafing or fretting of their new horn againſt the tree, they can no more feel any ſmart or grief in them, they take it for high time to forſake their ſolitary dwellings, and return again to their former condition, like one that is ſupplyed with new arms, after the loſing of his old. The tender and new horns the *Germans* call *Morchi*, and *Kolben*: theſe being taken from the Beaſt, are accounted among great Noble men a delicate diſh of meat. *Cyprius* is ſaid to have a Hart with four horns, which was called *Nicocreos*, and by him dedicated to *Apollo*, which I do therefore remember in this place, becauſe it is ſeldom ſeen, that an Hart can bear naturally above two horns. Authors do generally affirm, that when a Hart hath loſt his horns, he hideth them in ſome ſecret places, becauſe he underſtandeth ſome ſecret vertues are contained in them, which mankinde ſeeketh for, and therefore he either envying the good of other, or fearing leſt they bewray him hereafter to Hunters, taketh the beſt care and providence his diſcretion can afford, that they never come to the handling of men. When the people asked *Apollo*, what they ſhould do with *Procles* their Tyrant, the Oracle anſwered, that he ſhould go to that place where Harts caſt their horns: whereby it was gathered, that he ſhould be ſlain and buryed in the earth, and this cauſed the Proverb, *Ubi cervi abjiciunt cornua*, to ſignifie a deſperate buſineſs: yet could it not be agreed, whether the Hart make more account of his right horn or his left, and therefore *Ariſtotle* affirmeth, that the left horn is never found; and *Pliny*, that the right horn is never found.

The time of loſing their horns.
Pliny.

Ælianus.
A hiſtory of a Hart with four horns.

Whether the right or left horn be moſt precious.

This difference may be reconciled with eaſe, for right and left are ſo tearmed for three cauſes, or three manner of ways. Firſt, properly in all creatures, according to the beginning of motion. Secondly, for ſimilitude or likeneſs, as the right and left ſide of Images, ſtatues, &c. Thirdly, improperly when the right ſide of one thing ſtandeth againſt the left ſide of another, being oppoſite, as when two men ſtand face to face, and by this reaſon may the left horn of *Ariſtotle*, and the right horn of *Pliny* ſignifie all one thing: but we know that the horns of Harts are found yearly both in Fields and Woods.

Of the horns of *Turkey* Harts.

Bonatus.

Orus.
The reaſons why Harts and Deer loſe their horns yearly.

The wilde Harts of *Sarmatia* neer *Turkie*, have the greateſt horns of all other, for it hath been proved, that one pair of them have weighed forty pounds *Troy* weight and above: and there they loſe their horns in *March*, neither do they fall off together, but firſt one, and then the other, and after the firſt falling, it is manifeſt, that a certain worm getteth on them, and maketh upon them many circles and little furrows, whereby the root or baſis being weakened, the horn groweth very white in that place, and yet not without ſome appearance of blood remaining, which cleaveth to it, from the firſt falling off: for, when the head of this Beaſt is diſarmed, there iſſueth blood from the skull, and in appearance the naked place is like a wound, and yet it is wonderful to mark, that within three days the ſame is heald and filled with the blood which congealeth in that place firſt to a ſinew, and afterward to a hard bone, ſo as in *Auguſt* at the fartheſt, the horns are perfect; and therefore the *Egyptians* to deſcribe a long-lived man, picture a Hart loſing his horns every year, and new coming in their place. If any man be deſirous to know the reaſons, why only Beaſts of this kinde loſe their horns in this manner; I will not ſpare my pains to ſet down the beſt, which Authors have rendred for this wonder of nature.

Firſt, becauſe of the matter whereof they conſiſt, for it is dry and earthy like the ſubſtance of green leaves, which fall off yearly, wanting glewing or holding moiſture to continue them; and for this cauſe the horn of a Hart cannot be bent. Secondly, from the place they grow upon, for they are not rooted upon the skull, but only within the skin. Thirdly, from their efficient cauſe, for they are hardned both with the heat of Summer, and cold of Winter, by means whereof the pores to receive their nouriſhment liquor, are utterly ſhut up and ſtopped, ſo as of neceſſity their native heat dyeth:

which falleth not out in other Beaſts, whoſe horns are for the moſt part hollow, and fitted for longer continuance, but theſe are of leſſer, and the new bunches ſwelling up toward the Spring, do thruſt off the old horns, being holp either by the boughes of trees, by the weight of the horns, or by the willing excuſſion of the beaſt that beareth them. *Democritus* and other (as *Gillius* and *Aelianus*) give other reaſons, but becauſe they ſeem to be far fetched, I will omit them. Yet by the way, it is to be noted, that if a Hart be libbed or gelded when he is young, he never beareth horns, or very ſmall ones; and if his horns be upon him at the time of gelding, they never waxe leſs, or greater, or fall off. The Hindes never bear horns at all, as ſome have affirmed, but I rather believe *Cæſar*, *Maximilian*, and *Zenodotus*, who affirm upon their knowledge, that Hindes in ſome Countries have horns like the males: as likewiſe it is obſerved in the Elephants of *India*, and for this cauſe the Poets expreſſed the Hinde which nouriſhed *Telephus* with horns, and that which *Hercules* took with golden horns, and it is for certain, that in *Ethiopia* and *Lybia*, both ſexes have horns.

A natural ſecret of gelded Deer.
Ariſtotle.
Pliny.
Solinus.

The face of this beaſt is fleſhy, his noſtrils flat, and his neck very long; his ears, ſome greater, and ſome ſmaller; but in the Mount *Elaphus* and *Helleſpont*, they are ſlit. It is obſerved, that when a Hart pricketh up his ears, he windeth ſharp, very far and ſure, and diſcovereth all treachery againſt him, but if they hang down and wag, he perceiveth no danger. By their teeth is their age diſcerned, and they have four on both ſides, wherewith they grinde their meat, and beſides two other much greater in the male then in the female, and they bend downward to bite withall. All theſe beaſts have worms in their heads bred underneath their tongue in a hollow place, where the neck-bone is joyned to the head, which are not bigger then ſuch as flyes blow in rotten fleſh. They are ingendered together one with another, and they are in number twenty, as ſome would have it; but I was given to underſtand by one that ſaw a head of this Beaſt diſſected, wherein were many more Worms, and not contained in one place, but ſpread all over the head.

The ſeveral parts.
Ariſtotle.
Ariſtotle.

The breaſt is by the *French*-men called peculiarly *Hampan*, his blood is not like other Beaſts, for it hath no *Fibres* or ſmall veins in it, and therefore it is hardly congealed. His heart is very great, as it ſo falleth out in all fearful Beaſts, having in it a bone like a Croſs, as ſhall be afterward manifeſted. His belly is not of one faſhion, as it falleth out in all other which chew the cud.

He hath no gall, which is one cauſe of the length of his life, and therefore alſo are his bowels ſo bitter, that the Dogs will not touch them, except they be very fat. The *Achaian* Harts are ſaid to have their gall in their tails; and others ſay, that Harts have a gall in their ears. The Harts of *Briletum* and *Ibarne*, have their reins quadrupled or four-fold. The genital part is all nervy, the tail ſmall; and the Hinde hath udders betwixt her thighs with four ſpeans like a Cow: Both male and female are wonderfully ſwift, and ſubtile, as ſhall be ſhewed in the diſcourſe of their hunting. They are alſo apt and cunning to ſwim, although in their ſwimming they ſee no land, yet do they wind it by their noſes. They chew the cud like other Beaſts. It is reported, that when a Hart is ſtung by a Serpent, that by eating *Elaphoſcum*; (that is, as ſome call it, Harts-eye; other Hart-thorn, or grace of God; others Wilde Ditany) it preſently cureth the wound, and expelleth the poyſon: the ſame vertue they attribute to *Polypodie*, againſt the wound of a Dart.

Ariſtotle.
Pliny.
Of their diſpoſition.
Pliny.
A ſecret to cure poyſon.

Having thus entred into mention of their food, it is to be farther obſerved, that the males of this kinde will eat Dwall or Night-ſhade, which is alſo called Deaths herb, and they alſo love above all other food wilde Elder, ſo as in the Summer time they keep for the moſt part in thoſe places where theſe plants grow, eating the leaves only, and not the boughes or ſprigs: but the Hinde will eat neither of both, except when ſhe beareth a male in her belly, and then alſo by ſecret inſtinct of nature, ſhe feedeth like a male. They will alſo eat Serpents, but whether for hatred to them, or for medicine they receive by them, it is queſtionable. A Hart by his noſe draweth a Serpent out of her hole, and therefore the *Grammarians* derived *Elaphos*, a Hart, from *Elaunein tous opheis*, that is, of driving away Serpents.

Of their food.
Tragus.
A ſecret in the Hinde.
How Harts draw Serpents out of their holes, and wherefore they eat and devour them.

I cannot aſſent to the opinion of *Aelianus*, that affirmeth the Serpents follow the breath of a Hart like ſome Philtre or amorous cup; for ſeeing that all Authors hold an hoſtility in natures betwixt them, it is not probable, that the Serpent loveth the breath of a Beaſt, unto whoſe whole body he is an enemy, with a perpetual antipathy. And if any reply, that the warm breath of a Hart, is acceptable to the cold Serpent, and that therefore ſhe followeth it, as a Dog creepeth to the fire, or as other beaſts to the beams of the Sun; I will not greatly gain-ſay it, ſeeing by that means it is moſt clear, that the breath doth not by any ſecret force, or vertue, extract, and draw her out of the den, but rather the concomitant quality of heat, which is not from the ſecret fire in the bones of the Harts throat, (as *Pliny* hath taught) but rather from her ordinary expiration, inſpiration, and reſpiration. For it cannot be, that ſeeing all the parts of a Serpent are oppoſite to a Hart, that there ſhould be any love to that which killeth her.

For my opinion, I think that the manner of the Harts drawing the Serpent out of her Den, is not as *Aelianus* and *Pliny* affirmeth, by ſending into the Cave a warm breath, which burneth and ſcorcheth the Beaſt out of her Den; but rather when the Hart hath found the Serpents neſt, ſhe draweth the air by ſecret and violent attraction out from the Serpent, who to ſave her life followeth the air out of her den; as when a Veſſel is broached or vented, the Wine followeth the flying air; and as a Cupping-glaſs draweth blood out of a ſcarified place of the body: ſo the Serpent is drawn unwillingly to follow her deſtroyer, and not willingly, as *Aelianus* affirmeth.

Unto this opinion both *Oribaſius* in his Commentaries upon the Aphoriſms of *Hippocrates*, and *Guniterius* his reſtorer do joyntly agree: but the Serpent being thus drawn forth, addeth

Ælianus. greater force to her poyſon, whereupon the proverbial admonition did ariſe. *Cave ne incideris in ſerpentem, cum extracta a latebris anhelitu cervi effugerit, tum enim propter iracundiam vehementius ei venenum eſt*, that is, Beware thou meet not with a Serpent drawn out of her hole by the breath of a Hart, for at that time by reaſon of her wrath, her poyſon is more vehement. After this ſelf ſame manner do the Sea-Rams, draw the Sea-Calfs hid in the *Subterranean* Rocks; for by ſmelling they prevent the Air that ſhould come unto them for refrigeration.

Oppianus. *Gillius.* The fight betwixt Harts and Serpents. There is many times ſtrange conflicts betwixt the Hart and the Serpent, thus drawn forth; for the Serpent ſeeing her adverſary, lifteth her neck above the ground, and gnaſheth at the Hart with her teeth, breathing out very bitter hiſſings: on the contrary, the Hart deriding the vain endevour of his weak adverſary, readier to fight then powerful to harm him, ſuffereth him to embrace both his neck and legs with his long and thin body, but at an inſtant teareth it into an hundred pieces. But the moſt ſtrange combates are betwixt the Harts and Serpents of *Lybia*, where the hatred is deeper; and the Serpents watch the Hart when he lyeth a ſleep on the ground, and being a multitude of them, ſet upon him together, faſtening their poyſonful teeth in every part of his skin; ſome on his neck and breaſt; ſome on his ſides and back, ſome on his legs, and ſome hang upon his privy parts, biting him with mortal rage, to overthrow their foe.

The poor Hart being thus oppreſſed with a multitude, and pricked with venemous pains, aſſayeth to run away, but all in vain, their cold earthy bodies and winding tails, both over-charge his ſtrength, and hinder his pace: he then in a rage with his teeth, feet, and horns aſſaileth his enemies, whoſe ſpears are already entred into his body, tearing ſome of them in pieces, and beating other aſunder: they never the leſs (like men) knowing that now they muſt dye rather then give over, and yeeld to their pitileſs enemy, cleave faſt, and keep the hold of their teeth upon his body, although their other parts be mortally wounded, and nothing left but their heads, and therefore will dye together with their foe, ſeeing if they were aſunder, no compaſſion can delay or mitigate their natural unappeaſeable hatred.

The Hart thus having eaſed himſelf by the ſlaughter of ſome, (like an Elephant) at the ſight of their blood, beſtirreth himſelf more buſily in the eager battail, and therefore treadeth ſome under foot in the blood of their fellows, other he perſueth with tooth and horn, untill he ſee them all deſtroyed: and whereas the heads hang faſt in his skin, for avoiding and pulling them forth, (by a divine natural inſtinct) he flyeth or runneth to the waters, where he findeth Sea-Crabs, and of them he maketh a medicine, whereby he ſhaketh off the Serpents heads, cureth their wounds, and avoideth all their poyſon; this valiant courage is in Harts againſt Serpents, whereas they are naturally afraid of Hares and Conies, and will not fight with them.

Etymologus. *Varinus.* *Iſidorus.* It is no leſs ſtrange that Harts will eat Serpents, but the reaſon is, for medicine and cure; for ſometimes the pores of his body are dulled and ſhut up: ſometimes the worms of his belly do aſcend into the roof of his mouth, while he cheweth his cud, and there cleave faſt: for remedy whereof the Hart thus affected, runneth about to ſeek for Serpents; for his devouring of a Serpent, is a cure of this malady.

Pliny ſaith, that when the Hart is old, and perceiveth that his ſtrength decayeth, his hair change, and his horns dry above cuſtom, that then for the renewing of his ſtrength, he firſt devoureth a Serpent, and afterward runneth to ſome Fountain of water and there drinketh, which cauſeth an alteration in the whole body; both changing the hair and horn: and the Writer of the Gloſs upon the 42. Pſalm, which beginneth, *Like as the Hart deſireth the water ſprings, ſo longeth my ſoul after God*; confirmeth this opinion.

The ſeveral kindes of Harts. *Vincentius Belluacenſis* affirmeth, that Harts eat Serpents for to cure the dimneſs of their eye-ſight. But for the ending of this queſtion, we muſt conſider that there are two kindes of Harts; one which by the drawing forth of a Serpent out of her hole, doth preſently kill her by ſtamping her under feet, this eateth that Serpent, and runneth to ſpringing water, after that he feeleth the poyſon to make his body ſwell, and then by drinking doth vomit forth the poyſon, and in the mean time loſeth both hair and horn; yet the Monks of *Meſaen* affirm, that the Harts thus poyſoned doth only cover her body in the cold water, and not drink thereof, for that were exitial unto her; but ſhe ſendeth forth certain tears, which are turned into a ſtone, (called *Bezahar*) of which ſhall be more ſaid hereafter. The other kinde of Harts, when he findeth a Serpent, killeth it, and doth not eat it, and immediately after the victory returneth to feed in the Mountains.

The enemy beaſts to Harts. *Vincentius.* Harts are oppoſed by Wolves, for many Wolves together doth overcome a Hart; and therefore it is but a fable of *Strabo*, that the Wolves and Harts live tame together in the Woods of the *Veneti*. Theſe kinde of Wolves are called *Thoes*, and they eſpecially fear theſe Wolves when they have loſt their horns, and feedeth only in the night ſeaſon, which cauſed *Ovid* to write thus;

Viſa fugit nymphe, veluti perterrita fulvum
Cerva lupum, &c. ————

Albertus. They are afraid alſo of the firſt and ſecond kinde of Eagles, for with their wings they raiſe much duſt about the Harts, and then they being half blinde, the Eagles pull out their eyes, or elſe ſo beat their feathers about their faces, that they hinder their ſight, and cauſe them to fall down headlong from the Mountains: they fear alſo the ganning of Foxes, and the Lynxes do likewiſe lye in wait to hurt them. Theſe are above all other ſour-footed Beaſts both ingenuous and fearful, who although they have large horns, yet their defence againſt other four-footed Beaſts is to run away. For this cauſe, in ancient time a fugitive Boy or Servant was called a Hart; and if he ran away twice, *Cantharion*, which *Cantharion* was a *Spartan* fugitive, that firſt ran to the enemy, and afterward from them came back again to *Sparta*. And *Martial* thus deſcribeth *Aichæus*, who being overcome by *Philip* King of *Macedon* ran away like a Hart.

Ariſtotle.
Of the fear of Harts.
Crinitus.
Nebridius.

Trux ſpiritus ille Philippi,
Cervorum curſu præpete lapſus abit.

The Epithets expreſſing the qualities of this Beaſt are many: as nimble, or agile, winged, or ſwift-paced, full of years, quick-footed, horned, wandering, fearful, flying, fugitive, light, wood-hunter, wilde and lively. There are of them very audacious, for they will ſet upon men as they travel through the Woods: and it is obſerved, that the wrathful Hart hath few bunches on his horn, neither is it ſo long as others, but bunched at the root; yet all of them being preſſed with Dogs or other wilde Beaſts, will fly unto a man for ſuccour.

The Epithets of a Hart.
A kinde of audacious Harts.
Schneberg.
Pliny.

It is reported by *Philip Melancthon*, that in *Locha* (a town of *Saxony*) there was a Hart, which before rutting time would every year leap over the walls, and run over Rocks and Mountains, and yet return home again, untill the time that Duke *Frederick* dyed, and then the Hart went forth, but never returned again. The male when he feeleth himſelf fat, liveth ſolitary and ſecret; becauſe he knoweth the weight of his body will eaſily betray him to the Hunters, if he be hunted and purſued. The female commonly calveth neer the high ways, of purpoſe, to avoid noiſome Beaſts to her young one, who do more avoid the ſight of man then her ſelf. Alſo it is reported. that *Mithredates* had a Bull, a Horſe, and a Hart, for his guard, beſide men, who would not be bribed to ſuffer Traytors to kill him, being a ſleep. Moreover it is ſaid of *Ptolomeus Philadelphe*, that having a Hinde-Calf given unto him, he brought it ſo familiarly tame, and accuſtomed it to words, that at length it ſeemed to underſtand the *Greek* language: And *Ælianus* affirmeth as much of the Harts of *India*, for that language.

The ſubtilty of a Hart, and their inſtruction and uſe.
Ariſtotle.
Iſidorus.
The ſeveral kindes of Harts.

When they are wounded with a Dart, and having gotten it out of their body by eating Dittany, they moſt carefully avoid the Sun-beams, leſt they ſhine upon the green wound, for then it will hardly be cured: but above all other arguments of their underſtanding, none is more firm and evident, then their ſwiming; for the Harts of *Amanus*, *Libanus*, and *Carmell*, (Mountains of *Siria*) when they are to ſwim over the Sea, to the fruitful green trees of *Cyprus*, they come down to the Sea-ſhore, and there they tarry till they perceive a proſperous wind, and a calm water; which happening, the Captain or leader of them doth firſt of all enter into the water, and ſo the next followeth, laying his head upon the Captains buttocks, and ſo conſequently all the reſidue reſting their head upon the precedent. In the hindmoſt are the youngeſt and weakeſt, that ſo the violence of the floods being broken by the ſtronger which go before, the more infirm which follow may paſs with leſs difficulty. Thus ſail they along without ſtar or compaſs to direct them, except their own ſenſe of ſmelling, uſing their legs for Oares, and their broad horns for ſails. And if the formoſt be weary, then ſlippeth he back to reſt his head upon the hindmoſt, and ſo likewiſe the ſecond and third, as they feel themſelves enfeebled, untill they arrive at the happy port of good paſture; where growing ſtronger, like Beaſts, fall to fighting for rule and government, but when the combate doth ſhew the victor and ſtrongeſt, the reſidue do ever after yeeld obedience to him. In like ſort do the Harts of *Epirus* ſwim to *Corcyra*, and of *Cilicia* to the Iſland of *Curiadactes*.

A ſecret againſt poyſon.
Solinus.
Ælianus.
Of the ſwiming of Harts.
Tzetzes.
Gellius.
Opptanus.
Pliny.

They are deceived with muſick, for they ſo love that harmony, that they forbear their food to follow it. Alſo it is amazed at any ſtrange ſight, for if a Hunter come behinde a Horſe or Bullock, laying over his back his Bow and Arrows, they ſtand ſtaring upon the new formed Beaſt, untill the Dart do end their lives.

Solinus.
Their love of muſick.

At the time of their luſt or rutting, they are above meaſure fierce, fighting naturally for the female, and ſometimes wounding one another to death; and this falleth out moſt commonly in the latter end of *Auguſt*, at which time *Arcturus* riſeth with the Sun, and then it is moſt natural for the Hindes to conceive. In ſome places in *October* their luſt ariſeth, and alſo in *May*; and then whereas at other times the males live a part from the females, they go about like laſcivious woers, ſeeking the company of their females, as it were at the Market of *Venus*.

Their rage in rutting time.
Solinus.
Oppianus.

The males in their raging deſired luſt, have a peculiar voyce, which the *French* call by a feigned word *Reere*; and the *Germans*, *Brulen*; and the *Latines* tearm *Rancere*; and the Beaſts ſo affected *Ololygones*. When they finde the females, they are received with fear, then in ſhort ſpace one male will cover many females, continuing in this carnal appetite a month or two: their females do ſeldom admit copulation, being herein like unto Cows, by reaſon of the rigour of the males genital: and therefore they ſink down on their Buttocks when they feel the genital ſeed, as it hath been often obſerved in tame Harts, and if they can, the females run away, the males ſtriving to hold them back within their fore-feet: but ſurely herein they differ from all other: it cannot well be ſaid that they are covered ſtanding, lying, or going, (but rather running) for ſo are they filled with greateſt celerity.

Budæus.
Their copulation.
Ariſtotle.
Ariſtotle.

When one Month or ſix Weeks of their rutting is paſt, they grow tame again, laying aſide all fierceneſs, and return to their ſolitary places, digging every one of them by himſelf a ſeveral hole or Ditch, wherein they lie, to aſſwage the ſtrong ſavour of their luſt, for they ſtink like Goats, and their face beginneth to wax blacker then at other times; and in thoſe places they live, untill ſome ſhowers diſtill from the clouds; after which, they return to their paſture again, and live in flocks together as before.

The chaſtity of Hindes, and the time they go with young.
Ariſtotle.
Pliny.
Cicero.

The female being thus filled, never keepeth company with the male again untill her burthen be delivered, which is eight months; for ſo long doth ſhe bear her young: before her Calving, ſhe purgeth her ſelf by eating *Seſelis*, or *Siler* of the Mountain; and whereas ſhe never purgeth untill that time, then ſhe emptieth her ſelf of pituitous and flegmatique humors.

Then go they to the places neer the high ways, and there they caſt forth their Calf, (for the cauſes aforeſaid) being more afraid of wilde Beaſts then Men, whom ſhe can avoid by flying: which when they have ſeen, they go and eat the *Seſelis* aforeſaid, and the skin which cometh forth of her own wombe covering the young one, finding in it ſome notable medicine, which the *Græcians* call *Chorion*, and not the herb *Arum*, and this ſhe doth before ſhe lye down to give her young one ſuck, (as *Pliny* affirmeth.)

Pliny.
Ariſtotle.
Ælianus.
The manner how the Hinde educateth her Calf.

They bring forth but one, or very ſeldom twain, which they lodge in a ſtable fit for them of their own making, either in ſome rock, or other buſhy inacceſſible place; covering them, and if they be ſtubborn and wilde, beating them with their feet untill they lie cloſe and contented. Oftentimes ſhe leadeth forth her young, teaching it to run and leap over buſhes, ſtones, and ſmall ſhrubs, againſt the time of danger; and ſo continueth all the Summer time, while their own ſtrength is moſt abundant: but in the Winter time, they leave and forſake them, becauſe all Harts are feeble in the Winter ſeaſon.

Solinus.
The time of their life.
Ariſtotle.
Cælius.
Heſiodus.

They live very long, as by experience hath been often mentioned; not only becauſe they have no gall (as the *Dolphin* hath none) but for other cauſes: alſo ſome affirm, that a Raven will live nine ages of a Man, and a Hart four ages of a Raven: whereunto *Virgil* agreeth in theſe verſes;

Ter binis deciſque ſuper exit in annos,
Iuſta ſeneſcentum quos implet vita virorum;
Hos novies ſuperat vivendo garrula cornix,
Et quater egreditur cornicis ſæcula cervus,
Alipedem cervum ter vincit corvus : at illum
Multiplicat novies Phœnix reparabilis ales :

That is, as the life of a man is threeſcore and ſix, ſo a Raven doth live nine times ſo many years, (*viz.*) 528 years. The Hart liveth four times the age of the Raven, (*viz.*) 2112 years. The Crow exceedeth the Hart three times, (*viz.*) 6336. But the *Phenix* which is repaired by her own aſhes, ſurmounteth the Crow nine times, and ſo liveth 57524 years. The which I have ſet down (not for truth) but for report, leaving every reader to the chiefeſt matter of credit, as in his own diſcretion he conceiveth moſt probable.

A Hiſtory.
Solinus.

But it is confeſſed of all, that Harts live a very long life: for *Pliny* affirmeth, that an hundred years after the death of *Alexander Magnus*, there were certain taken alive which had about their necks golden Collars, with an inſcription that they were put on by *Alexander*.

Ariſtotle.

In *Calabria* (once called *Iapygia* and *Peucetia*) there was Collar taken off from the neck of a Hart by *Agathocles* King of *Sicily*, which was covered with the fleſh and fat of the Hart; and there was written upon it *Diomedes Dianæ*: whereby it was conjectured, that it was put on by him before the ſiege of *Troy*: for which cauſe, the King brought the ſame and did offer it up in the Temple of *Iupiter*.

Pauſanias.
Columello.

The like was in *Arcadia*, when *Arceſilaus* dwelt in *Lycoſura*; for he confidently affirmed, that he ſaw an old ſacred Hinde, which was dedicated to *Diana*, having this inſcription in her Collar: *Nebros eoon ealoon ota es Ilion en Agapenor*. When *Agapenor* was in *Troy*, then was I a young Calf taken. By which it appeareth, that a Hart liveth longer then an Elephant, for indeed as they live long before they grow to any perfection, their youth and weakneſs cleaving faſt unto them, ſo is it given to them to have a longer life, for continuance in ripeneſs and ſtrength of years.

Solinus.
The ſickneſs of Harts.
Gillius.
Lullius.
Ariſtotle.
Pliny.

Theſe Beaſts are never annoyed with Feavers, becauſe their fleſh allayeth all adventitial and extraordinary heat. If he eat Spiders he inſtantly dyeth thereof, except he eat alſo Wilde Ivie, or Sea-crabs. Likewiſe Navew-gentil and Oleander, kill the Hart. When a Hart is in his chaſe, he is greatly pained in his bowels, by reaſon that the skin wherein they lie is very thin and weak, and apt to be broken with any ſmall ſtroke; and for this cauſe he often ſtayeth to eaſe himſelf.

There is a kinde of thorn called *Cactus*, wherewithall if a young one be pricked in his legs, his bones will never make Pipes. Beſides theſe Beaſts are annoyed with Scabs and Itches in their head and skin, tearmed by the *French* by a peculiar name (*Froyer*:) I will not ſtand upon the idle conceit of *Albertus*, that Waſpes and Emmets breed in the heads of Harts, for he miſtaketh them for the worm, before mentioned.

Blondus.
The uſe of the ſeveral parts.

The skins of this Beaſt are uſed for garments in ſome Countries, and in moſt places for the bottom of Cuſhions, and therefore they chuſe ſuch as are killed in the Summer time, when they are fat and moſt ſpotted; and the ſame having their hair pulled from them, are uſed for Breeches, Buskins, and Gloves. Likewiſe *Pliny* and *Sextus* affirmed, that if a man ſleep on the ground having upon him a Harts skin, Serpents never anoy him: whereof *Serenus* made this Verſe:

Heſichius.
Varianus.

Aut tu cervina per noctem in pelle quieſcis.

And the bons of young ones are applyed for making of Pipes. It is reported, that the bloud of Harts burned together with herb-dragon, orchanes, orgament, and maſtick have the ſame power to draw Serpents out of their holes, which the Harts have being alive: and if there be put unto it wilde Pellitory; it will alſo diſtract and diſſipate them again.

The marrow of a Hart hath the ſame power againſt Serpents, by ointment, or perſumed upon coles; and *Nicander* preſcribeth a certain ointment to be made of the fleſh of Serpents, of the marrow of a Hart, and Oils of Roſes, againſt the bitings of Serpents The fat of a Hart hath the like effects that the marrow hath. *Achilles* that Noble Souldier, was ſaid never to have taſted of milk, but to be nouriſhed with the marrow of Harts, by *Chiro*, as is affirmed by *Varinus* and *Etymologus*. The like operation hath the tooth (as *Serenus* ſaith)

Dioſcorides.

Aut genere ex ipſo dentem portabis amicum.

If the ſeed of a young Hinde Calf be drunk with Vinegar, it ſuffereth no poiſon of Serpents to enter into the body that day.

The perfume of the horn driveth away Serpents and noiſome flies, eſpecially from the young Calves, or from Horſes if womens hair be added thereto, with the hoof of the Hart. And if men drink in pots wherein are wrought Harts horns, it will weaken all force of venom. The *Magicians* have alſo deviſed, that if the fat of a Dragons heart be bound up in the skin of a Roe, with the nerves of a Hart, it promiſeth victory to him that beareth it on his Shoulder, and that if the teeth be ſo bound in a Roes skin, it maketh ones Maſter, Lord, or all ſuperior powers, exorable and appeaſed toward their ſervants and ſuitors. *Orpheus* in his book of ſtones, commandeth a husband to carry about him a Harts horn, if he will live in amity and concord with his wiſe; to conclude, they alſo add another figment to make men invincible.

Ælianus.
Varro.
Palladius.
Raſis.
Gillius.
Pliny.
Solinus.
Albertus.
Cardanus.

The head and tail of a Dragon, with the hairs of a Lion taken from between the browes, and his marrow, the froath or white-mouth of a victorious Horſe, the nails of a Dog, and the nerves of a Hart and a Roe, bound up all together in a Harts skin: and this is as true as the wagging of a Dogs tail doth ſignifie a tempeſt. To leave theſe trifles ſcarce worthy to be rehearſed, but only to ſhew the vanity of men, given over to lying deviſes; let us come to the other natural and medicinal properties not as yet touched.

The fleſh of theſe Beaſts in their running time ſmelleth ſtrongly like a Goats, the which thing is by *Blondus* attributed alſo to the fleſh of the females with young, I know not how truly; but I am ſure that I have known certain Noble women, which every morning did eat this fleſh, and during the time they did ſo, they never were troubled with Ague: and this virtue they hold the ſtronger, if the beaſt in dying, have received but one wound.

The uſe and benefit of the fleſh.

The fleſh is tender, eſpecially if the beaſt were libbed before his horns grew: yet is not the juice of that fleſh very wholeſome, and therefore *Galen* adviſeth men to abſtain as much from Harts fleſh, os from Aſſes, for it engendereth melancholy, yet is it better in Summer then in Winter. *Simeon Sethi* ſpeaking of the hot Countries, forbiddeth to eat them in Summer, becauſe then they eat Serpents and ſo are venemous; which falleth not out in colder Nations, and therefore aſſigneth them rather to be eaten in Winter time, becauſe the concoctive powers are more ſtronger through plenty of inward heat, but withal admoniſheth, that no man uſe to eat much of them, for it will breed Palſies and trembling in mans body, begetting groſſe humors, which ſtop the Milt and Liver: and *Avicen* proveth, that by eating thereof men incur the quartane Ague; wherefore it is good to powder them with ſalt before the dreſſing, and then ſeaſoned with Peper and other things, known to every ordinary Cook and woman, they make of them Paſties in moſt Nations.

Pliny.
Solinus.
lib.3. de alim.

The heart and brain of a Hare or Cony have the power of Triacle for expelling of evill humors, but the Liver is intolerable in food: the horns being young are meat for Princes, eſpecially becauſe they avoid poiſon. It was a cruell thing of King *Ferdinand*, that cauſed the young ones to be cut out of the Dams belly and baked in Paſties, for his liquorous *Epicureal* appetite.

The whole nature and diſpoſition of every part of this beaſt is againſt poiſon and venemous things (as before recited). His bloud ſtayeth the looſeneſs of the belly and all fluxes, eſpecially fryed with Oil, and the inferior parts anointed therewith, and being drunk in Wine, it is good againſt poiſoned wounds and all intoxications.

The medicines of a Hart and his ſeveral parts.

The marrow of this beaſt is moſt approveable above other, and is uſed for ſweet odour, againſt the Gowt, and heat of men in Conſuptions, and all outward pains and weakneſs, as *Serenus* compriſed in one ſentence ſaying:

Pliny.
Dioſcorides.
Solinus.

Et cervina poteſt mulcere medulla rigorem
Frigoris——————

Likewiſe the fat and marrow, mollifieth or diſperſeth all bunches in the fleſh and old ſwellings; all Ulcers except in the ſhins and legs, and with Venus-navil, the Fiſtula, mattery Ulcers in the ears; with Rozen, Pitch, Gooſe-greace, and Goat-ſewet, the cleaving of the lips: and with Calves ſewet *Sextus.* the heat and pain in the mouth and jawes. It hath alſo vertue being drunk in warm water, to aſwage the pain in the bowels and ſmall guts, or Bloudy flux.

The gall of a Bull, Oil of bayes, Butter, and this marrow, by anointing, cureth pain in the knees and loins and other evils in the ſeat of man, in the hips, and in the belly when it is coſtive: It procureth flowers of Women, cureth the Gowt, Pimples in ones face, and Ringwormes. *Abſyrtus* preſcribeth it to be given in ſweet wine with wax, unto a Horſe for an old Cough proceeding of cold, after purging and heating, by holding the Horſes tongue in ones hand while the medicine is thruſt down his throat.

The ſame in Sheeps milk with Rubrick and ſoft Pitch, drunk every day or eaten to your meat, helpeth the Ptiſick and Obſtructions. *Anatolius* approved Bean meal ſifted and ſod with Harts *Marcellus.* marrow to be given to a Horſe which ſtalleth bloud for three daies together. Alſo mingled with the powder of Oyſter ſhels, it cureth Kibes and Chilblanes. A woman perfumed with the hairs of this beaſt, is preſerved from abortements; and the ſame perfume helpeth the difficulty of urine, and little pieces cut off from the hide with a Pummiſe put in wine, and rubbing the body, helpeth the holy-fire. The powder of the bones burned, is an antidote againſt the falling evill, and the diſperſing of the milt; and the bones beaten to powder, ſtayeth the Flux of the belly.

It were endleſs to deſcribe all the virtues aſcribed to the horn, and therefore I will content my ſelf with the recital of few. *Pliny* and *Solinus* prefer the right horn, *Ariſtotle* the left, and the ſpires or tops are more medicinable then the hard and ſolide ſtem, but the horns fonnd in the Woods loſt by the beaſts and grown light, are good for nothing. The other have their uſes both raw and burned, which may be theſe which follow.

Take the horn and cut it into ſmall pieces, then put it into an earthen pot anointed within with durt, and ſo ſet it in a furnace untill it become white, then waſh it like a mineral and it will help the runnings and ulcers in the eyes; and the ſame alſo keepeth the teeth white, and the gums ſound. The young horns while they be ſoft being eaten, are an antidote againſt Henbane and other poiſonful herbs. The right horn hid by the Hart in the earth is good againſt the poiſon of Toades. *Pliny.* The Harts horn hath power to dry up all humors, and therefore it is uſed in eye ſalves: and *Orpheus* promiſeth to a bald man hair on his head again, if he anoint it with oil and powder of this horn: like- *Sextus.* wiſe the ſame with the ſeed of black mirtle, Butter and Oil, reſtraineth the falling away of the hair being anointed upon the head after it is newly ſhaven: with Vinegar it killeth Ringwormes. The *Marcellus.* ſame burned in the Sun, and afterward the face being rubbed and waſhed therewith thrice together, *Sextus.* taketh away pimple-ſpots out of the face: the powder drunk in wine or anointed on the head kil- *Marcellus.* leth lice and nits; the ſame with Vinegar, Wine, or Oil of Roſes, anointed upon the forehead, eaſeth the head-ach if it proceed of cold.

Galenus. A perfume made of this horn with *Caſtoreum*, and Lime or Brimſtone, cauſeth a dead childe ſtrangled in his mothers womb to come forth; if the horn be taken raw and rubbed upon the gums, keepeth the cheeks from all annoyance of the tooth-ach, and faſteneth the looſe teeth, as *Serenus* ſaid:

Quod vero aſſumpſit nomen de dente fricando
Cervino ex cornu cinis eſt.

Galen preſcribeth the powder of this horn for the Jaundiſe, and for him that ſpitteth bloudy matter, and to ſtay vomit being taken in a reere Egge. It comforteth alſo a rheumatick ſtomach, and it is tryed to cure the Kings evill, it pacifieth the milt, dryeth the Spleen, driveth all kind of Wormes out of the belly, being drunk with hony, and eaſeth the Colick, expelleth away mothers, helpeth the Strangury, and the pain in the bladder, ſtayeth Fluxes in women both white and red: being mingled with Barly meal, water, and twigs of Cedar, beſide many other ſuch properties.

The tears of this beaſt after ſhe hath been hunted with a Serpent, are turned into a ſtone (called *Belzahard*, or *Bezabar*) of which we have ſpoken before: and being thus tranſubſtantiated do cure all manner of venom (as *Avenzoar*, and *Cardinal Ponzetti* affirme) after many trials, and *Serenus* alſo expreſſeth in this Diſtichon:

Seminecis cervi lachrymam miſcere liquori
Convenit, atque artus illinc miſcere calentes.

The liver of this beaſt helpeth all ſores in the feet, being worn in the ſhooes, the ſame dryed to powder with the throat or wind-pipe of the beaſt, and mingled with Hony, and ſo eaten helpeth the Cough, Ptiſick, ſighing and ſhort breathing. *Pliny* and *Sextus* affirme, that when a Hinde perceiveth herſelf to be with young, ſhe devoureth or eateth up a certain ſtone, which is afterward found either in her excrements or ventricle, and is profitable for all Women with childe and in travell, for by that only fact, the Hinde is moſt ſpeedily delivered without great pain, and ſeldome or never ſuffering abortment; and there is alſo a little bone found in the heart of every one of

theſe

Aetius.

theſe beaſts, which performeth the ſame qualities, in ſtead whereof they have ſuch a thing to ſell at *Venice*, holding it at great price: but *Braſavola* affirmeth, that he opened the hearts of two Harts, and found in them a little griſtle not much unlike to a croſſe, whereof the one being of a Beaſt new killed, was very ſoft, but the other was much harder, becauſe the beaſt was ſlain about ſix dayes before.

This bone is in the left ſide of the heart, upon which the Spleen moveth and ſendeth forth her excrements by vapors, which by reaſon of their drineſs are there turned into a bone, and being firſt of all of the ſubſtance of the Harts bloud: and it is good againſt the trembling of the heart, and the Hemorrhoides, but this bone cannot be found in any, except he be killed betwixt the middle of *Auguſt* and the twelfth of *September*.

Platerias.

The skinny ſeed of the Hind-Calf, is above all other commended againſt poiſon, and the bitings of Serpents and of mad Dogs; likewiſe it ſtayeth all Fluxes of bloud, and ſpitting of bloud, and egeſtion of bloud: and it being eaten with Beets and Lentils, is profitable againſt the pain of the belly. The genital part and ſtones are wholeſome (being taken in wine) againſt all bitings of Vipers, Adders, and Snakes, and the ſame virtue hath the natural ſeed ſupped up in a rere Egge.

The genital hath alſo a virtue to encreaſe luſt in every creature, it being either dryed and drunk; or elſe bound faſt to their privie parts. Likewiſe being warmed in water, and afterward dryed to powder and ſo drunk, helpeth the Colick, and the difficulty of making water, if you put it into a little Triacle.

The dung of Harts cureth the Dropſie, eſpecially of a Subulon or young Hart: the urine eaſeth the pain in the Spleen, the wind in the ventricles and bowels, and infuſed into the ears, healeth their ulcers. In the tip of the tail lyeth poiſon, which being drunk, cauſeth extaſie and death, if it be not helpt by a vomit made of Butter, Anniſe, and oil of *Seſamine*, or as *Cardinal Ponzettus* ſaith, that the Harts eye is an Antidote to this evill: It may be known by a yellowiſh-green colour, and therefore it is called the gall, for nature hath appointed that place to receive all the venom of the whole Body.

Of the hunting and taking theſe beaſts.

I ſhould here end the diſcourſe of this beaſt, after the method already obſerved in the precedents: but ſeeing the manner of the taking hereof (being a ſport for Princes) hath yet been touched but very little, it ſhall not be tedious unto me, to abſtain from the neceſſary relation of the ſubſequent ſtories, for the delightful narration of the hunting of the Hart: to the end that as the former treatiſe hath but taught how to know a Bird in a buſh, that which inſueth may declare the ſeveral wayes of catching and bringing the ſame to hand.

This is a beaſt ſtanding amazed at every ſtrange ſight, even at the hunters bow and arrow, coming behind a ſtalking Horſe (as is already declared:) and moreover, like as the Roes are deceived by the hiſſing of a leaf in the mouth of the hunter, ſo alſo is this beaſt, for while ſhe hearkeneth to a ſtrange noiſe, imitating the cry of a Hind-Calf, and proceeding from one man, ſhe receiveth a deadly ſtroke by the other: ſo alſo if they hear any muſical pipings, they ſtand ſtill to their own deſtruction: for which cauſe the *Egyptians* decipher a man overthrown by flattery, by painting a Hart taken by muſick: and *Varro* relateth upon his own knowledge, that when he ſupped in his Lordſhip bought of *M. Piſo*, the Paſtour or Forreſter after ſupper, took but a Harp in his hand, and at the ſound hereof, an innumerable flock of Harts, Boars, and other four-footed beaſts came about their Cabanet, being drawn thither only by the muſick; in ſo much as he though he had been in the *Roman Circus* or Theater, beholding the playing ſpectacles of all the *African* beaſts, when the *Ædilian* Officers have their huntings: the like is alſo reported by *Ælianus*, ſaving that he addeth, that no toil or engine is ſo aſſured or unavoidable to draw theſe beaſts within a labyrinth as is muſick, whereby the Hunter getteth as it were the Hart by the ear, for if through attention he hold down his ears as he doth in muſick, he diſtruſteth no harm, but if once he prick up his ears as he commonly doth, being chaſed by men and dogs, an infinite labour will not be ſufficient to overtake and compaſs him. It is reported that they are much terrified with the ſight of red feathers, which thing is affirmed by *Auſonius* in theſe Verſes:

Horus.
An hieroglyphical emblem.

Ælianus.

An cum fratre vagos dumeta per avia cervos
Circundas maculis, & multa indagine pennæ.

And *Ovid* alſo ſaying,

Nec formidatis cervos includite pennis.

And *Lucan* alſo;

——*Sic dum pavidos formidine cervos*
Claudat odoratæ metuentes aera pennæ.

Of which thing the Hunters make an advantage, for when they have found the beaſt, they ſet their nets where they imagine the beaſt will flie, and then one of them ſheweth to the beaſt on the other ſide, the red feathers hanging on a rope, which ſcareth them in haſte into the Hunters nets,

Xenophon.

as S. *Jerom* teſtifieth in one of his Dialogues, ſaying, *Et pavidorum more cervorum, dum vanos pennarum evitatis volatus, fortiſſimis retibus implicamini.* And you, ſaith he, (ſpeaking to the *Luciferian* hereticks) run away from the vain ſhaking of feathers, like the fearfull Harts, while in the mean time you are inclapſed in unavoidable and inextricable nets. And this cauſed *Seneca* to write, that the babe feareth a ſhadow, and wilde beaſts a red feather.

umbra metuitur ab infantibus, a feris rubens penna.

Many times the young Calf is the cauſe of the taking of his Dam: for the Hunter early in the morning before day light, watcheth the Hinde where ſhe layeth her young one, untill ſhe go and refreſh her ſelf with paſture; when he hath ſeen this, then doth he let looſe his Dogs, and maketh to the place where the Hind-Calf was left by his mother.

The ſilly Calf lyeth immoveable as if he were faſtened to the earth, and ſo never ſtirring, but bleating and braying ſuffereth himſelf to be taken, except there be rainy weather, for the impatience of cold and wet will cauſe him to ſhift for himſelf: which if it fall out, the Dogs are at hand to overtake him, and ſo being taken is committed to the keeper of the nets.

The Hinde both hearing and ſeeing the thraldom of her poor ſon, cometh to relieve him, without dread of Hound or Hunter, but all in vain, for with his dart he alſo poſſeſſeth himſelf of her; but if the Calf be greater, and ſo be able to run with the Dam among the herds, they are moſt hard to be taken, for in that age they run very faſt, and the fear of Dogs increaſeth their agility, in ſo much as to take them among the herds is impoſſible, every one fighting for them.

But the only way is to ſingle one out of them from the flock, and ſo follow him until he be weary, for although he be very nimble, yet by reaſon of his tender age, his limbes are not able to continue long. The elder Harts are taken in ſnares and gins laid in ditches and covered with leaves, whereby the feet of this beaſt is ſnared in wood; this kind is deſcribed by *Xenophon* and *Pollux*, and is called in *Greek*, *Podeſtrabe*; in *Latin*, *Pedica*, of which alſo the Poets make mention, as *Virgil*:

Tunc gruibus pedicas & retia ponere cervis.

And this kind is better deſcribed by *Gratius*, with whoſe words I will paſſe it over as a thing ont of uſe.

Nam fuit & laqueis aliquis curracibus uſus.
Cervino iſſere magis conterere nervo,
Quidque dentatas iligno robere clauſit:
Sæpe habet imprudens alieni lucra laboris,
Fraus tegit inſidias habitu mentita ferino
Venator pedicas, cum diſſimulantibus armis.

Their manner is when they are chaſed with Dogs to run away with ſpeed, yet oftentimes ſtand ſtill and look back, not only to hearken to the hunter, but alſo to reſt themſelves, for in their chaſe they are ever troubled in their belly (as is before declared) and ſometime they grow ſo weary, that they ſtand ſtill, and are pierced with arrows, ſometime they run till they fall down dead, ſometime they take themſelves to the water and ſo are refreſhed, or elſe to avoid the teeth of Dogs, they forſake the dry land, and periſh in the floods, or elſe by that means eſcape ſcotfree: wherefore it muſt be regarded by every good hunter to keep him from the waters, either among the woods or other rough places.

Albertus.

But herein the ſubtilty of this beaſt appeareth, that when he is hunted, he runneth for the moſt part to the high wayes, that ſo the ſavour of his ſteps may be put out by the treadings of men, and he avoid the proſecution of the Hound. Their ſwiftneſſe is ſo great, that in the *Champaine* and plain fields they regard not Dogs, for which cauſe in *France* they poiſon Arrows with an herb called *Zenicum* or *Toca*, and it is a kinde of *Aconite* or Wolfe-bane, which hath power to corrupt and deſtroy agility of body, and to ſtay celerity, and for their hunting in *France* by Dogs, it is moſt excellently deſcribed by *Budæus* and *Robertus Stephanus* in his *French* Dictionary.

This wilde, deceitful and ſubtil beaſt, (ſay they) by windings and turnings do often deceive their hunter, as the Harts of *Meandros* flying from the terrible cry of *Dianaes* hounds, wherefore the prudent hunter muſt frame his Dogs, as *Pythagoras* did his Scholars, (*Luuers qui ne parlent point*) with words of Art, to ſet them on, and take them off again at his pleaſure; wherefore he muſt firſt of all compaſs in the beaſt, (*En ſon giſte*) in her own lodging, and ſo raiſe her up in the ſight of the Dogs, that ſo they may never loſe her footing.

Neither muſt they ſet upon every one, either of the herd, or that wandereth ſolitary alone, nor yet a little one, but partly by aſpect or ſight, and partly by their footings in the ſoft earth, and alſo by their dung (*Les fumees*) they judge of their game, for a good Woodman muſt not ſtick to gather up the Deers excrement or ſoil, and keep them (*La trompe*) in his hunting horn: ſuch things muſt the Kings huntſmen and forreſters obſerve, as alſo the quantity of his bed or lodging when they finde it; being thus informed of their game, then (*Diſcoppler les chiens*) they take off their Dog couplings, and ſome on horſeback, other on foot follow the cry with greateſt art, obſervation,

tion, and ſpeed, remembring and preventing (*Cer fruze*) the ſubtile turnings, and headings of the Hart, ſtraining with all dexterity to leap hedge, pale, ditch, and rocks; neither fearing thornes, woods, down-hils, but providing a freſh horſe in caſe the firſt tire, (*Chevaux de relatis*) and leaping on him with ſpeed, untill he ſee (*un grand cerf l'eſcuyer du grand cerf*) the great Hart having ten ſpeers on his horns, and his little ſquire-hart to attend him, which the Dogs once perceiving, only follow the great Hart, taking for a prohibition to follow any other.

The Dogs are animated by the winding of horns, and voices of the hunters, like Souldiers to a battel by the voice of a trumpet and other inſtruments: but ſometimes the crafty great beaſt ſendeth forth his little ſquire to be ſacrificed to the Dogs and Hunters in ſtead of himſelf, lying cloſe in the mean time, then muſt the retreat be ſounded, and (*Rompre lecbiens*) the Dogs be broken off and taken in (*Le limier*) that is, leame again untill they be brought to the fairer game, who ariſeth in fear and rage, betaking himſelf to his ſureſt legs, being purſued with all the cries of Hunters, ringing and ecchoing betwixt heaven and earth, diſmaying him with the continual noiſe in his eares, no leſſe dreadful and fearful then the voice of a paſſing bell to a ſick man, or the ſight of the executioner to a condemned caitiſe, yet ſtill he ſtriveth untill wearied and breathleſs, he be forced to offer up his bloud and fleſh to the rage of all the obſervant pediſſequants of the hunting Goddeſs *Diana*.

The vulgar ſort call an old Hart a ſubtil and cunning beaſt, but the Nobles call him (*cerf ſage*) a wiſe Hart, who to avoid all his enemies runneth into the greateſt herds, and ſo bringeth a cloud of error upon the Dogs, to keep them from any further proſecution: ſometime alſo beating of ſome of the herd into his own footſteps, that ſo he may more eaſily eſcape and procure a labyrinth to the Dogs, and then after a little while he betaketh himſelf to his heels again, running ſtill with the wind, not only for refrigeration, but becauſe he may the more eaſily hear the voice of his purſuers, whether they be far or neer.

At laſt, being (for all this) found out again by the obſervance of the hunters, and ſkill of the Dogs, he flyeth into the herds of Cattel, as Kie, Oxen, or Sheep, leaping upon an Ox, and laying his body or the fore-part thereof upon him, as a rider upon a Horſe, that ſo touching the earth only with his hinder hoofs, to leave a very ſmall or no ſent at all behind for the Hounds to diſcern.

The chief huntſman or ſergeant of the hounds unto *Lewis* the twelfth, called (*Le grand venieur*) affirmeth that on a time they having a Hart in chaſe, ſuddenly the Hounds fell at a fault, ſo as the beaſt was out of ſight, and not a Dog would once ſtir his foot; whereat all the Hunters were amazed, like as in ſome jugling *Apollonian* trick, as though the hart had clean forſaken the earth, and with the wings of ſome fowl had been flown away; or as if the earth had opened her mouth to receive him into her protection, and had cloſed again over her head, or elſe ſome Witchcraft had caſt a miſt before the Dogs and Hunters eyes: At laſt by caſting about (as it is uſuall in ſuch caſes) they found the fraud of the horned beaſt, which is worth the memory.

There was a great white-thorne which grew in a ſhadowie ſteep place as high as a tree, and was invironed with other ſmall ſhrubs about it, into the which the ſaid Hart leapt, and there ſtood aloft the boughs ſpreading from one another, and there remained, whether becauſe he could not get off again, or elſe for that he was ſtifled in that place, but ſurely he was there thruſt through and ſo died, and ſo had they all rather periſh any other way then by the teeth and tearing in pieces of angry and greedy Hounds.

Yet their maner is, that when they ſee themſelves every where intercepted, to make force at him with their horns that cometh firſt unto him, except he be prevented by ſome ſword or ſpear; which being done, the Hunter with his horn ſoundeth the fall of the beaſt, and then every one approacheth, luring with triumph for ſuch a conqueſt, of whom the ſkilfulleſt openeth the beaſt, giving unto the Hounds ſuch parts as belongeth to them, for their incouragement againſt another time; and for that purpoſe the Hunters dip bread in the ſkin and bloud of the beaſt, to give unto the Hounds their full ſatisfaction: and many ſuch other things may the reader deſirous of this knowledge find in the Authors aforeſaid, to whom I will commend him rather, then ſpend more time in this buſineſs, better manifeſted by experience, then by any written document, yet I would wiſh men to be ſparing in this exerciſe, ſeeing it hath been ſeldom found that a man given to hunting, but he periſhed in his pleaſure, as *Actæon* did by his own Dogs: and therefore *Alciatus* doth fitly compare together hunters and receivers of Theeves and Robbers, calling them new *Actæons*; who after they had received horns, muſt be deſtroyed by their own Dogs which they have nouriſhed. The beſt uſe of theſe beaſts is to keep them tame, as in *Helvetia*, where they hunt ſeldom, and to make good uſe of them for nouriſhment rather then for ſport, as it is reported of a holy-man, who kept a Hinde ſo familiar with him, that in the Wilderneſs he lived upon her milk.

Concluding this diſcourſe with the words of the Poet, for the inſtruction of Dogs to this paſtime and practiſe of the beaſts.

Veloces Spartæ catulos, acremque moloſſum,
Paſce ſero pingui, &c.

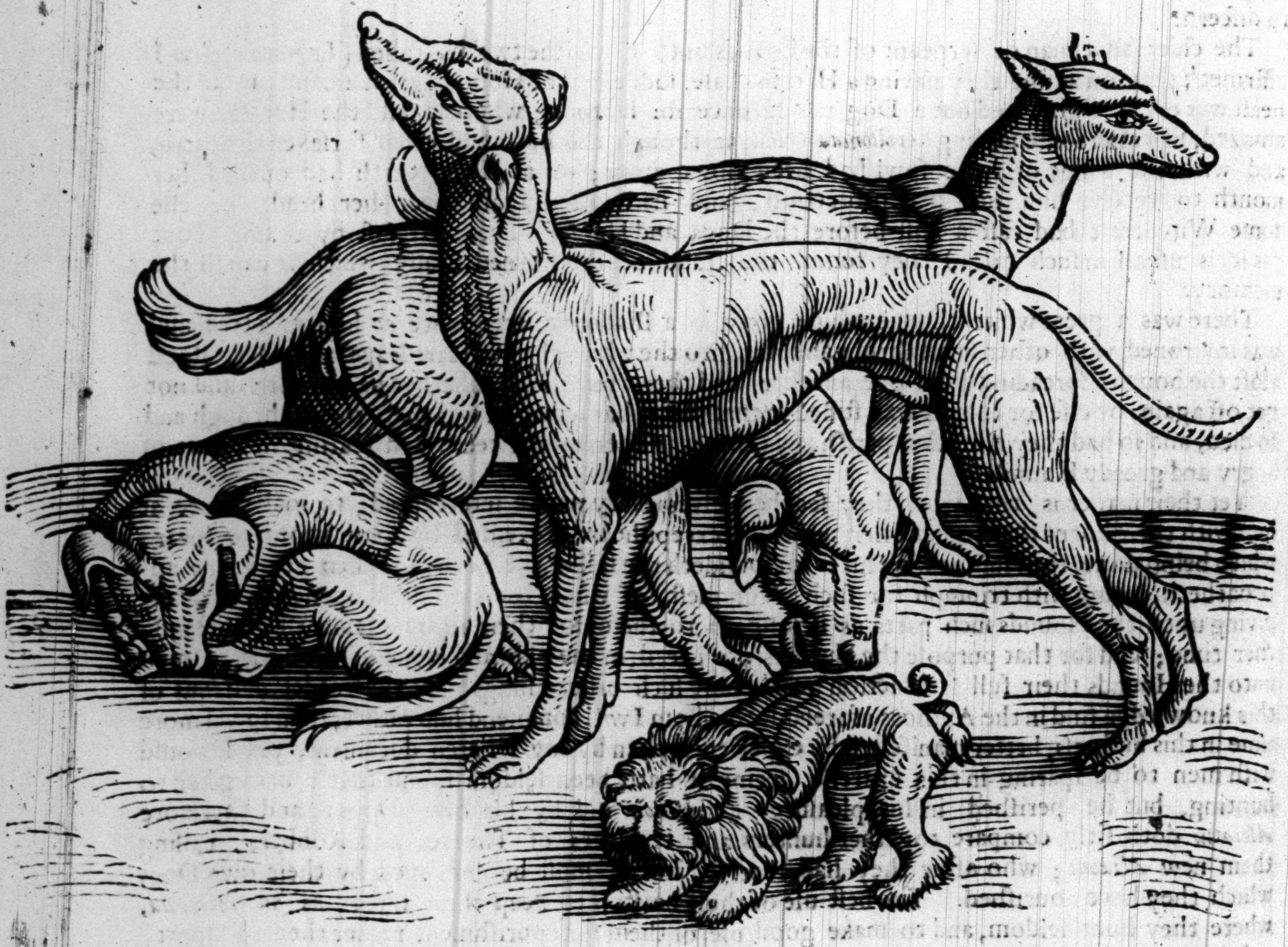
And again;

————————Monteſque per altos
Ingentem clamore premes ad retia cervum.
————Confertoque agmine cervi
Torpent mole nova, & ſummis vix cornibus extant.
Hos non immiſſis canibus, non caſſibus ullis,
Puniceæve agitent pavidos formidine pennæ:
Sed fruſtra oppoſitum trudentes pectore montem
Comminus obtruncant ferro, graviterque rudentes
Cædunt, & magno læti clamore reportant.

Of the *DYCTYES*.

Herodotus in his fourth book affirmeth, that among the *African* Shepherds toward the Eaſt, there are bred in *Baſſaria Hyſtriches* wilde Rams, *Thoes* and *Dyctyes*, of which laſt there is not any mention among all other writers, except in *Varinus* and *Heſychius*, who affirm that among the *Lacedemonians* a Glead or Kite was called *Dyctis*, but this ſpoken of *Herodotus* I conjecture to be ſome four-footed beaſt, being led with no other reaſon then that the other with whom he placeth it, are generally known to be creatures of that kind and nature: wherefore I thought good to expreſs the name of it in this place, deſiring the Reader to accept ſo much thereof as is already known, and to ſearch farther for the deſcription of it, at the hands of them who are eye-witneſſes of the wonders of *Africa*.

Of the *DOG* in general.



The name and derivation thereof.

A Dog is called in *Hebrew*, *Keleb*, and *Lamas* according to *Munſter*; in *Chalde*, *Kalba*; in *Arabick*, *Kalbe*; in *Perſia*, *Sag*; the *Saracens*, *Kep*, or *Kolph*; the *Grecians Kuon* becauſe of his love to man, and vulgarly at this day *Skilos* and *Skule*; the *Medians*, *Spaco*; the *German*, *Hund*; the *Italians*, *Cane*; the *French*, *Chien*; the *Spaniards*, *Perro* or *Cavendo*, because his barking is as loud as an Artificial ſong, alſo *Catellus*; the *Illyrians*, *Pes* or *Pas*; and the *Latins*, *Canis*.

There is no region or Countrey in the world, where theſe are not bred in ſome ſtore, as ſhall be declared afterward in the particular diſcourſe of every kinde of Dogs. For as ſhall be manifeſted more at large, there are Dogs very great, ſome for hunting, ſome for War and defence, ſome for the Boar, Bull, or Bear, ſome for the Hare, Cony, or Hedge-hog: again ſome are ſmaller which are called Hounds, Braches, Beagles, Shepherds Dogs, Houſe-curs, Spagnels both for the Water and Land; and ſome foiſting Dogs for the pleaſure of the rich.

The countries and diverſities of Dogs.

In the firſt place there are to be handled the nature of Dogs in general, wherein they agree, and their common properties of nature, ſuch as are not deſtroyed in the diſtinction of kinds, but remain like infallible and invariable truths in every kind and Countrey of the world. To begin with that which is outward, it is to be obſerved that Dogs are generally rough, and their hair indifferently long (which in Winter they loſe every year) is a ſigne of a good conſtitution; but if it grow over long, the mangie ſcab will follow: the outward proportion of the head altereth as the kind altereth, being ſometime like a Lion, ſometime like a Hedge-hog, ſome long with a broad ſnowt, and ſometime with a piked ſnowt, but the brain decreaſeth and increaſeth with the Moon, there is no commiſſure or ſeam in his ſcull (like as is in a Mans) but it is a continued bone without ſeparation inward or outward.

The general nature of Dogs.
Their outward parts.
Ariſtotle.
Albertus.
A ſecret in the brain.

The beſt Dogs have flat noſtrils, yet round, ſolid and blunt, the mouth is long and ſlit, their teeth like ſaws, as it is in Fiſhes and Serpents: thoſe which are called *Canine* before, are only changed, as it alſo falleth out in a Lion, and theſe they loſe or change, both males and females, in the fourth moneth of their age: about which time they have new ones come forth to thruſt off their old. By their teeth is their age diſcerned, for while they are white and ſharpe, it aſſureth the youth of a Dog, but when they grow blackiſh, or duskie, they betoken the elder age.

Pliny.

The breaſt of a Dog is narrow and piked, his ventricle ſmall and narrow, for which cauſe he never eaſeth his bodily excrements without pain, his bowels are like a Lions: he hath a long ſpleen like a Man, and a Hog: his yard and ſtones hang outward between his hinder-legs; a baſe natured cur ſtriketh his tail betwixt his legs; his forelegs bend like the armes of a man, and he uſeth them in ſtead of Armes, having five diſtinct fingers, commonly called claws upon each foot before, and four upon each foot behind, which alſo have ſtraight nails upon them, and that which hangeth higher upon the leg is crooked.

Ariſtotle.
Pliny.
Ariſtotle.
Blondus.
Pliny.

The females, becauſe they bring forth many whelps at a time, have underneath their bellies great paps, with many ſpeans to ſuck at, in a double rank or row on both ſides, and the generous Bitches have 12. other but 10. They bear their young within their belly next to the midriffe, their ſime is dry like a Wolves, and thereby his temperament is known to be hot and dry, conſidered in it ſelf, but compared with others it varyeth, for to a Mans it is dry; to an Emmets, it is moiſt: again, in reſpect of a Man, it is hot; in reſpect of a Lion, it is cold.

The parts of a female Dog.
Galen.

The lowder and ſhriller voice of a Dog, is called barking, the lower and ſtiller, is called whining, or fawning. It was a monſtrous thing, that a Dog ſhould ſpeak, and a Serpent bark, as it is believed in antiquity both came to paſſe, when *Tarquinius* was driven out of his kingdom. It is not cauſeleſs that the barking of Dogs, hath attributed unto it divers qualities, as for a man to dream of the ſame, preſageth ſome treaſonable harm by enemies, ſo likewiſe if they fawn and claw upon a man.

The voice of Dogs.
Pliny.

Among the precedent tokens of *Cæſars* death, they ſet down in certain Verſes, the howling voices of Owls, the weeping drops of the Ivie tree, and the continual barkings of Dogs, as followeth.

Artemidorus.

Triſtia mille locis Stygius dedit omina bubo,
Mille locis lacrymavit ebur——— ———
Inque foro circumque domos & templa deorum
Nocturnos ululaſſe canes, &c.

The *Egyptians* ſignifie theſe things by a Dog, *a Scribe, a Prophet, a Spleen, ſmelling, laughing,* and *neezing.* A *Scribe,* becauſe as the Dog is ſilent more then he barketh, ſo muſt a perfect Scribe meditate more then he ſpeaketh: for to bark at every one were to pleaſure none, and to ſpeak continually, were a ſigne of madneſs. Again, a *Prophet,* becauſe a Dog doth moſt eagerly behold, and admire conſtantly at holy actions, and ſo ought the eyes and eares of a Prophet be attendant upon heavenly things. The *Spleen,* becauſe a Dog hath little or no ſpleen, and thereof cometh his madneſs and death; whereof alſo it cometh that the ſervants which have the charge of Dogs, being with them in their ſickneſs and latter end, for the moſt part prove Splenetick. *Smelling, Neeſing,* and *Laughing,* becauſe the Splenetick can do none of all theſe; but of this more afterward.

Orus.
Emblematical deſcription.

The voice of a Dog, is by the learned interpreted a railing and angry ſpeech; whereof cometh *Canina facundia* among Authors, for railing eloquence. It is the nature of a Dog when he maketh water, to hold up his leg, if he be above ſix moneths old, or have been at procreation; the females do it for the moſt part ſitting, yet ſome of the generous ſpirits do alſo hold up the legs. They ever ſmell to the hinder parts of one another, peradventure thereby they diſcern their kind and diſpoſition of each other in their own natures. After they have run a courſe, they

The making of urine.
Ariſtotle.
Pliny.
Albertus.

The factions of Dogs for their own eaſe.

The ſleep of Dogs.

Their copulation and lyming.

Columella.

relieve themſelves by tumbling and rowling to and fro: when they lie down, they turn round in a circle two or three times together, which they do for no other cauſe, but that they may the more commodiouſly lie round, and from the winde.

They ſleep as doth a man, and therein dream very often, as may appear by their often barking in their ſleep: but it muſt be diligently regarded of them that love to keep Dogs, that they permit them not to ſleep much, eſpecially after their meat when they are yonng, for as they are very hot, ſo in their ſleep doth their heat draw much pain into their ſtomach and ventricle. The time of their copulation is for the moſt part at a year old, yet the females will luſt after it at eight moneths old, howbeit they are not to be ſuffered, becauſe it weakeneth their bodies, and dulleth in them all generoſity; therefore after one year they may ſafely be ſuffered to come together, and not before. Neither is it material, whether in Summer or Winter, but it is beſt in the beginning of the Spring, but with this caution, that Whelpes of a litter or of one and the ſame Bitch, be never ſuffered to couple; for nature rejoyceth more in variety.

Ariſtotle.

Tardinus.

The time of Bitches whelping and bearing her young.

Ariſtotle.

For then they grow ſalt and begin to be proud; yet in ancient time, for the more ennobling of their race of Dogs, they did not ſuffer them to engender till the Male were four year old, and the female three; for then would the Whelpes prove more ſtrong and lively. By hunting, labour and travel, the males are made more fit for generation, and they prove beſt which have their ſires of equal age. They are not ſuffered to engender all their life long, but untill ten and twelve year old, or rather eight in the male, and ſix in the female. Yet there have been found which in one and other ſex, have continued in procreation till they were twenty year old, but this exceeded all natural reaſon. When they begin to be proud, if you give them leaven mingled with milk and ſalt, they will not ſtray and range abroad. At the time of their copulation, they cleave together for a certain ſpace, as if their hinder parts were glewed, and ſo they are filled at one time. They bear their young the fifth part of the year, that is, about two moneths and odd dayes; but this reckoning is not general, for ſome kinds bear their young three moneths, and ſome more. They bring forth many at a time, ſometime five, ſeven, nine, or twelve, for ſo many cels hath the female in her womb.

Albertus relateth that he ſaw a Bitch of the Maſtive kind, which brought forth at three litters fifty Whelpes, that is nineteen at the firſt, eighteen at the ſecond, and thirteen at the third: but ſometime ſhe bringeth forth but one, which is a good argument to prove that ſhe is filled at the firſt liming. They are purged of their menſtruous fluxes ſeven or fourteen daies before they grow proud, and again, at their time of littering; at other times they ſuffer none.

Ariſtotle.

The firſt whelp is a male.

The blindneſs of Whelpes.

Ælianus.

A ſecret in their food.

The firſt they caſt forth of their wombe is commonly a male, which reſembleth the father, the other males and females as it happeneth, (but it is accounted a prodigious thing to litter all males or all females) wherein nature yeeldeth an excellent argument of divine providence, for the firſt born of all kinds hath more reſemblance of the father then of the mother. They are alſo whelped blind, and ſo remain for nine or ten dayes, becauſe through their multitude they cannot be perfected in the dams belly, which doth not happen to beaſts which bear ſingle, as Sheep and Goats. They uſe to carry them up and down in their mouths till they be ſeven dayes old, but not afterward, they have milk about five dayes before their littering. It is not good to preſerve the firſt or ſecond litter, but the third; and after they have littered it is good to give the Bitch Whay and Barly bread, for that will comfort her and encreaſe her milk; and in ſome places they take Goats milk and ſeethe in it broken bones of meat, whereby they conceive that the Dam and Whelpes are much bettered for that nutriment: there is not any great regard of the nouriſhment of Dogs, for they will eat much and that often and divers things, except Dogs fleſh, for that cannot be ſo dreſſed and prepared by the art of man, but they finde it out by their noſe and avoid it. It is good to let the Whelpes ſuck two moneths before they be weaned, and that of their own dam, for it is not ſo good for them to ſuck another, and in the mean time exerciſe them to meat, as Milk, Whay, Bread, and fleſh; alſo from the Spring untill the Sun entreth *Cancer*, at which time it is good to let them grow lean according to the Verſes of *Nemeſian*.

——— Conſuetam minuiſſe ſaginam
Profuerit, tenueſque magis retinere cibatus,
Ne gravis articulos depravet pondere molles.
Nam tum membrorum nexus, nodoſque relaxant.

And afterward when they are ſixe moneths old amend their diet again that they may grow ſtrong.

Tunc rurſus miſcere ſero Cerealia dona.
Conveniet, fortemque dari de frugibus eſcam.

Tardinus.

Athenæus.

They will not eat Buck-maſt wherewithal Hogs grow fat, for that breedeth in them the pain of the head. By eating the excrements of men they incur many diſeaſes: they are mad drunk by the herb *Oenutta*, as Crowes bee; they cannot endure Wine, but bread ſopped in wine they devoure, dryed fleſh and bread in Milk is their ſafeſt food; if Cummin be now and then mixed in their bread, they are not much troubled with winde in their bellies. If you put a little Oil in their Water to drink or lap, they will prove more able and ſwift to run. If he refuſe and loath his meat, take a little hot bread and give it him before meat, or dip brown bread in Vinegar, and ſo preſſe and ſqueeſe the liquor thereof into his noſe and it will eaſe him.

A remedy for loathing meat.

Of the choiſe ot a generous whelp.

There is much ado to chuſe a Whelpe under the Dam that will prove the beſt in the litter. Some obſerve that which ſeeth laſt, and take that for the beſt; other remove the Whelpes from the kennel and lay them ſeveral and apart one from the other, then watch they which of them the Bitch firſt taketh and carryeth into her kennel again, and that they take for the beſt; or elſe that which vomiteth laſt of all. Some again give for a certain rule to know the beſt, that the ſame which weigheth leaſt while it ſucketh will prove beſt according to the Verſes of *Nemeſian.*

Pondere nam catuli poteris perpendere vires,
Corporibuſque leves gravibus pernoſcere curſu.

But this is certain that the lighter whelp will prove the ſwifter, and the heavier will be the ſtronger. Other make this experiment, firſt they compaſs in the Puppies in the abſence of the Dam with a little circle of ſmall ſticks apt to burn, and ſtinking rags, then ſet they them on fire about the whelpes, and that Puppy which leapeth over firſt they take for the beſt, and that which cometh out laſt they condemn for the worſt. As ſoon as the Bitch hath littered, it is good to chuſe them you mean to preſerve, and to caſt away the refuſe; keep them black, or brown, or of one colour; for the ſpotted are not to be accounted of. And thus much of the outward parts and the choiſe of Dogs. The manifold attributes of Dogs among all Writers, do decipher unto us their particular nature; as that they are called ſharp, bitter, fierce, ſubtil, ſounding, bold, eared for attention, affable, ſwift, ſpeedy, clamorous, wilde, faithful, horrible, rough, faſting, cruell, ungentle, unclean, hurtful, biting, filthy, ſmelling, ſent-follower, watchful, mad, hoarſe, and quicknoſed; beſide many ſuch other both among the *Greeks* and *Latins* And likewiſe you ſhall read of many particular Dogs, and their names appellative, both in *Greek* and *Latine*, which may be remembred alſo in this place, to ſhew what reckoning all ages have made of this beaſt; for it is neceſſary, that as ſoon as he beginneth to feed he preſently receive a name, ſuch are theſe, of two ſyllables or more, as *Scylax*, *Speude*, *Alke*, *Rome*, *Lacon*, *Acalanthis*, *Agre*, *Labros*, *Hylactor*, *Alleus*, *Argus* (one of *Ulyſſes* Dogs) *Asbolus*, *Augeas*, *Aura*, *Bria*, *Polis*, *Bremon*, *Kainon*, *Canache*, *Happarus*, *Charon*, *Chorax*, *Harpia*, *Lycitas*, *Chiron*, *Lyciſca*, *Arcas*, *Dromas*, *Gnome*, *Eba*, *Hybris*, *Hyleus*, *Maira*, *Melampus*, *Orne*, *Lethargos*, *Nape*; beſides infinite other among the antients; but among the latter writers, *Turcus*, *Niphus*, *Falco*, *Ragonia*, *Serpens*, *Ichtia*, *Pilaſter*, *Leo*, *Lupus*, *Stella*, *Fulgur*, *Bellina*, *Rubinum*, *Satinus*, and *Furia*: ſo that every Nation, and almoſt every man hath a proper and peculiar name for his Dog, as well as for his Oxe.

Tardinus.

Of the nature and inward qualities of Dogs.

Of the love of a Dog.

There is not any creature without reaſon, more loving to his Maſter, nor more ſerviceable (as ſhall appear afterward) then is a Dog, induring many ſtripes patiently at the hands of his Maſter, and uſing no other means to pacifie his diſpleaſure, then humiliation, proſtration, aſſentation, and after beating, turneth a revenge into a more fervent and hot love. In their rage they will ſet upon all ſtrangers, yet herein appeareth their noble ſpirit, for if any fall or ſit down on the ground and caſt away his weapon, they bite him not; taking that declining for ſubmiſſive pacification. They meet their Maſter with reverence and joy, crouching or bending a little, (like ſhamefaſt and modeſt perſons:) and although they know none but their Maſter and familiars, yet will they help any man againſt another Wilde beaſt. They remember voices, and obey their leaders hiſſing or whiſling.

Pliny.
Plutarch.
Homer.
A ſecret to pacifie an angry Dog.
Ælianus.

There was a Dog in *Venice* which had been three years from his Maſter, yet knew him again in the Market place; diſcerning him from thouſands of people preſent. He remembreth any man which giveth him meat: when he fauneth upon a man he wringeth his skin in the forehead. The Dog which is broad faced like a Lion, is moſt full of ſtomach and courage; yet the tongue or skin of an *Hyæna* (by natural inſtinct) maketh him run away: ſometimes they will agree with Wolves, for they have engendered together, and as the Lute ſtrings made of a Wolfe and a Lambe cannot agree in muſick, but one of them will break, ſo alſo will a Dogs and a Lambs.

A hiſtory of a Dogs memory.

Gillius.
Kiramides.
A ſecret in the fear of a Dog.

Ælianus thiuketh that Dogs have reaſon, and uſe Logick in their hunting, for they will caſt about for the game, as a diſputant doth for the truth, as if they ſhould ſay either the Hare is gone on the left hand, or on the right hand, or ſtraight forward, but not on the left or right hand, and therefore ſtraight forward. Whereupon he runneth forth right after the true and infallible footſteps of the Hare. There was a Dog in *Africa* in a ſhip, which in the abſence of the Mariners came to a pitcher of oil to eat ſome of it, and the mouth of the pot being too narrow for his head, to enter in (becauſe the pot was not full) he deviſed to caſt flint ſtones into the veſſel, whereby the Oil roſe to the top of the Pitcher, and ſo he eat thereof his fill, giving evident teſtimony thereby, that he diſcerned by nature, that heavy things will ſink down, and light things will riſe up and flie aloft.

The reaſon of Dogs.

There is a Nation of people in *Ethiopia* (called *Nube*) which have a Dog in ſuch admirable eſtimation, that they give unto him the honor of their King; for they have no other King but he. If he faun, they take him for well pleaſed; if he bark or flie upon them, they take him for angry: and by his

Solinus.
Ælianus.

geſtures

Pliny. *Giraldus.* The honour done to Dogs.

geſtures and movings they conjecture his meaning, for the government of their ſtate: giving as ready obedience to his ſignifications, as thev can to any lively ſpeaking Prince of the world: for which cauſe the *Egyptians* alſo picture a Dog with a Kings robe, to ſignifie a Magiſtrate. Thoſe people of *Egypt* alſo, obſerve in their religious proceſſions, and geſticulations, dumb-idle-gods, to carry about with them two Dogs, one Hawk, and one *Ibis*, and theſe they call four letters: by the two Dogs, they ſignifie the two Hemiſpheres which continually watch and go over our heads: by the Hawk, the Sun; for the Hawk is a hot creature, and liveth upon deſtruction: by the *Ibis*, the face of the Moon; for they compare the black feathers in this bird to her dark part, and the white to her light. Other by the Dogs, do underſtand the two Tropicks, which are (as it were) the two porters of the Sun for the South and North: by the Hawk, they underſtand the Equinoctial or burning line, becauſe ſhe flyeth high: by the *Ibis*, the Zodiack: and indeed thoſe Painters which could moſt artificially decipher a Dog (as *Nicias*) were greatly reverenced among the *Egyptians*.

Cœlius.

The like folly (or impious beaſtlineſs) was that of *Galba*, who forſook the precedents of his predeceſſors in ſtamping their coin with their own image, and imprinted thereupon his ſealing ring left him by his forefathers, wherein was engraven, a Dog bending upon his female. I know not for what cauſe, the Star in the midſt of Heaven whereunto the Sun cometh about the Calends of *July*, was termed *Canis* (a Dog) and the whole time of the appearance of that Star, which is about thirty dayes, ſhould be called *Dog-dayes*; but only becauſe then the heat of the Sun doth torment the bodies of men twice ſo much as at other times: whereupon they attribute that to the Star (which they call *Sirius*) which rather is to be attributed to the Sun during that time every year.

Varinus. *Heſychius.* *Arnobius.*

Others fable, that there is another Star cloſe to him (called *Orion*) who was an excellent hunter, and after his death was placed among the Stars, and the Star *Canis* beſide him was his hunting Dog: but by this Star called of the *Egyptians*, *Solachim*; and of the *Grecians*, *Aſtrocynon*, cometh that *Egyptian Cynick* year which is accompliſhed but once in 1460 years. Unto this Star were offered many ſacrifices of Dogs in ancient time, whereof there can be no cauſe in the world, as *Ovid* well noteth in theſe Verſes.

Pro Cane ſidereo Canis hic imponitur aræ:
Et quare fiat nil niſi nomen habet.

Pliny.

As among the *Carians*, whereupon came the proverb of *Caricum Sacrificium*, for they ſacrificed a Dog in ſtead of a Goat, and the young puppies or whelpes were alſo accounted amongſt the moſt availeable ſacrifices, for the pacifying of their Idoll gods.

Plutarch.

The *Romans* and *Grecians* had alſo a cuſtom to ſacrifice a Dog in their *Lycæan* and *Lupercal* feaſts, which were kept for the honour of *Pan*, who defended their flocks from the Wolf, and this was performed in *February* yearly, either becauſe that the Dogs were enemies to Wolves, or elſe for that by their barking, they draw them away in the night time from their City: or elſe, becauſe they reckoned that a Dog was a pleaſing beaſt to *Pan*, who was the keeper of Goats: ſo alſo the *Grecians* did offer a Dog to *Hecate* who hath three heads, one of a Horſe, another of a Dog, and the third head in the midſt of a wilde man: and the *Romans* to *Genetha*, for the ſafe cuſtody and welfare of all their houſhold affairs.

Their houſhold Gods (called *Lares*) were pictured and declared to the people ſitting in Dogs-skins, and Dogs ſitting beſides them, either becauſe they thereby ſignified their duty to defend the houſe and houſhold: or elſe as Dogs are terrors to Theeves and evill beaſts, ſo theſe by their aſſiſtance were the puniſhers of wicked and evill perſons: or rather that theſe *Lares* were wicked ſpirits prying into the affaires of every private houſhold, whom God uſed as executioners of his wrathful diſpleaſure upon godleſs men.

Feſtus. *Cœlius.* *Arnobius.* *Gyraldus.*

There were Dogs ſacred in the Temple of *Æſculapius*, becauſe he was nouriſhed by their milk; and *Jupiter* himſelf was called *Cynegetes*; that is, a *Dog-leader*; becauſe he taught the *Arcadians* firſt of all to hunt away noiſome beaſts by the help of Dogs: ſo alſo they ſacrificed a Dog to *Mars*, becauſe of the boldneſs of that creature. To conclude, ſuch was the unmemorable vanity of the Heathens in their gods and ſacrifices, as it rather deſerveth perpetuall oblivion then remembrance, for they joyned the ſhapes of men and beaſts together (ſaith *Arnobius*) to make gods, *Omnigenumque deum monſtra & latrator Anubis*, ſuch were their *Cynocephali*, *Ophiocephali*, *Anubis*, *Hecate*; that is as much to ſay, as half Men, half Dogs, half Serpents, but generally all Monſters: and for the many imaginary virtues the ancients have dreamed to be in Dogs, they alſo in many places have given unto them ſolemn funerals in their hallowed Cemiteries, and after they were dead they ceaſed not to magnifie them, as *Alexander*, which built a City for the honour of a Dog.

Of diſhonour and ignobility of Dogs.

All this notwithſtanding, many learned and wiſe men in all ages have reckoned a Dog but a baſe and an impudent creature: for the *Flamen Dialis* of *Jupiter* in *Rome*, was commanded to abſtain from touching of Dogs, for the ſame reaſon that they were prohibited and not permitted to enter into the Caſtle of *Athens*, and Iſle of *Delos*, becauſe of their publick and ſhameleſs copulation: and alſo that no man might be terrified by their preſence from ſupplication in the Temples. The fooliſhneſs of a Dog appeareth in this, that when a ſtone or other thing is caſt at him, he followeth the ſtone and neglecteth the hand that threw it, according to the ſaying of the Poet:

Arripit ut lapidem catulus, morſuque fatigat,
Nec percuſſori mutua damna facit;
Sic pleriſque ſinunt vexos elabier hoſtes,
Et quos nulla gravant noxia, dente petunt.

Marcellus.

Likewiſe men of impudent wits, ſhameleſs behaviors in taking and eating meat, were called *Cynicks*; for which cauſe *Athenæus* ſpeaketh unto *Cynicks* in this ſort, You do not O *Cynici* lead abſtinent and frugal lives, but reſemble Dogs: and whereas this four-footed beaſt differeth from other creatures in four things, you only follow him in his viler and baſer qualities, that is, in barking and licenſe of railing, in voracity and nudity, without all commendation of men.

Porphyrius.

Homer.
Horace.

The impudency of a Dog is eminent in all caſes to be underſtood, for which cauſe that audacious *Ariſtogiton* ſon of *Cidimachus* was called a Dog, and the Furies of ancient time were pictured by black Dogs, and a Dog called *Erinnys*: *Cerberus* himſelf with his three heads ſignified the multiplicity of Devils; that is, a Lions, a Wolfs, and a fawning Dogs; one for the Earth, another for the Water, and the third for the Air: for which cauſe *Hercules* in ſlaying *Cerberus*, is ſaid to overcome all temptation, vice and wickedneſs, for ſo did his three heads ſignifie. Other by the three heads underſtand the three times; by the Lion the time preſent; by the Wolf, the time paſt; and by the fawning Dog, the time to come.

It is delivered by Authors, that the root of Oliander, or elſe a Dogs tooth bound about the arme, do reſtrain the fury and rage of a Dog: alſo there is a certain little bone in the left ſide of a Toade (called *Apocynon*) for the virtue it hath in it againſt the violence of a Dog. It is reported by *Pliny*, that if a live Rat be put into the pottage of Dogs, after they have eaten thereof, they will never bark any more; and *Ælianus* affirmeth ſo much of the Weaſils tail cut off from him alive, and carryed about a man; alſo if one carry about him a Dogs heart or liver, or the skin wherein Puppies lie in their dams belly (called the Secundine) the like effect or operation is attributed to them againſt the violence of Dogs.

Conſtantius.

There is a little black ſtone in *Nilus* about the bigneſs of a Bean, at firſt ſight whereof a Dog will run away. Such as theſe I ſaw at *Lyons* in *France*, which they called Sea-beans, and they preſcribed them to be hanged about a Nurſes neck to encreaſe her milk. But to conclude the diſcourſe of the baſeneſs of a Dog, thoſe two proverbs of holy Scripture, one of our Saviour Mat. 7. *Give not that which is holy to Dogs*; and the other of St. *Peter*, 2 Epiſtle Chap. 2. The Dog is returned to the vomit; do ſufficiently convince, that they are emblems of vile, curſed, rayling, and filthy men; which eſteem not holy things, but eat up again their own vomits.

Stobæus.

The uſe of their parts.
Bloudus.
Oppianus.

The skins of Dogs are dreſſed for Gloves, and cloſe Boots, the which are uſed by ſuch as have Ulcerous and ſwelling Legs or Limbs, for by them the afflicted place receiveth a double relief; firſt, it reſiſteth the influent humors; and ſecondly, it is not exaſperated with Woollen. The *Turkes* colour their Dogs tails with red, and it is a cuſtom of Hunters to take Dogs and tie them in the Woods unto trees by their ſtones, for by crying they provoke the Panther to come unto them.

The fleſh of Dogs eaten.

It is not to be doubted but that the fleſh of Dogs is uſed for meat in many places, although the opinion of *Raſis* be true and conſonant to reaſon, that all devouring creatures, as Dogs, Foxes, and Wolves, have no good fleſh for meat, becauſe they engender melancholy; and yet *Galen* thinketh, that it is like to the fleſh of a Hare, eſpecially young Whelpes were held among the *Romans* a delicate meat, and were uſed by their Prieſts; and among Whelpes they attributed moſt virtue to their fleſh which were eaten before they did ſee, for by them came no evill humor at all, as is often ſet down in *Plautus*.

Inſtaurione.

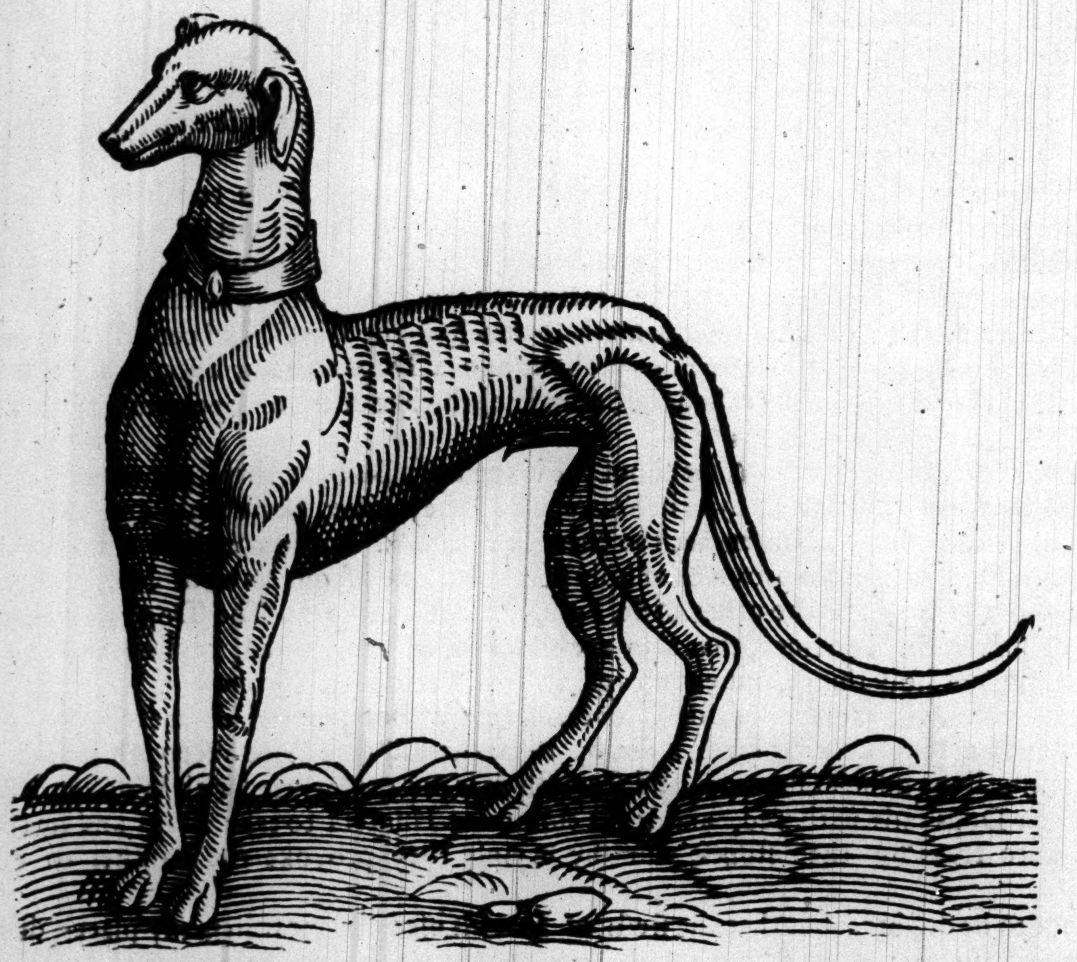
Peter Martyr and *Scaliger* do affirm of *Cozumella* and *Lucatana*, and other Iſlands of the new World, that the people there do eat a kind of Dog which cannot bark: Theſe Dogs are vile to look upon like young Kids. The inhabitants of *Corſica*, which are fierce, angry, wilde, cruell, audacious, diſſemblers, active and ſtrong, do alſo feed upon Dogs, both wilde and tame: and it is thought that their meat is a little furtherance to their inclination, for ſuch is the natural diſpoſition of Dogs. And *Sciltbergerus* in the Book of Peregrinations affirmeth alſo, that the *Tartarians* in *Ibiſſibur* do after the ſame manner feed upon the fleſh of Dogs: from hence it cometh, that men reſembling a Dog in a plain forehead and narrow, are ſaid to be fooliſh; in a ſmooth and ſtretched out flatterers; thoſe which have great voices like a Ban-dog, are ſtrong; they which rail much (like often barking Dogs) are of a doggiſh, angry diſpoſition. He that hath a great head like a Dog, is witty; he which hath a little head like an Aſſes, is blockiſh; they which have fiery eyes like Dogs, are impudent and ſhameleſs: thin lips with narrow folding corners, in Dogs is a token of generoſity, and in men of magnanimity: they whoſe teeth hang over their canine teeth, are alſo adjudged railers, and virulent ſpeakers: and as *Carnarius* obſerveth, vain glorious braggarts. A wide mouth, betokeneth a cruell, mad, and wicked diſpoſition; a ſharpe noſe, an angry minde; as a round, blunt, and ſolid Noſe, ſignifieth a Lions ſtomach and worthineſs. A ſharpe chin, vain babling and wantonneſs; they which are ſmall in their girting ſtead about their loins, do much love hunting.

Admantius.

Stobæus in his wicked diſcourſe or diſpraiſe of Women affirmeth, that the curſt, ſharp, ſmart, curious, dainty, clamorous, implacable and wanton-rowling-eyed Women, were derived from Dogs: and *Heſiode* to amend the matter ſaith, when *Jupiter* had faſhioned Man out of the earth, he commanded *Mercury* to infuſe into him a *Canine* minde, and a clamorous inclination: but the Proverb of *Solomon* Chap. 30. concludeth the excellency of a Dog ſaying, *There be three things which go pleaſantly, and the fourth ordereth his pace aright: The Lion which is the ſtrongeſt among beaſt, and feareth not the ſight of any body: a hunting Dog ſtrong in his loins, a Goat, and a King againſt whom there is no riſing up*: by all which is deciphered a good King; for the Lion riſeth not againſt beaſts, except he be provoked; the Dog riſeth not againſt his friends, but wilde beaſts; and the He-goat goeth before his flock like a guide and keeper.

Munſterus.

Of the *GRAY-HOUND*, with a narration of all ſtrong and great hunting *DOGS*.



The name of a Gray-hound.

AMong the divers kinds of hunting Dogs, the Gray-hound or *Grecian* Dog, called *Thereuticos* or *Elatica* (by reaſon of his ſwiftneſs, ſtrength and ſagacity to follow and devour wilde beaſt of great ſtature) deſerveth the firſt place; for ſuch are the conditions of this Dog, as *Plato* hath obſerved, that he is reaſonably ſented to finde out, ſpeedy and quick of foot to follow, and fierce and ſtrong to take and overcome: and yet ſilent, coming upon his prey at unawares, according to the obſervation of *Gratius*;

Sic Canis illa ſuos taciturna ſupervenit hoſtes.

Like the Dogs of *Acarnania*, which ſet upon their game by ſtealth. Of theſe are the greateſt Dogs of the world, which in this place are briefly to be remembred.

Oppianus. Their deſcription. *Plutarch.* Their deſire of fit game.

Theſe have large bodies, little heads, beaked noſes, but flat, broad faces above their eyes, long necks, but great next to their bodies, fiery eyes, broad backs, and moſt generous ſtomachs, both againſt all wilde beaſts and men alſo. Their rage is ſo great againſt their prey, that ſometimes for wrath they loſe their eye-ſight. They will not only ſet upon Buls, Boars, and ſuch like beaſts, but alſo upon Lions, which *Mantuan* noteth in this verſe;

Et truculentus Helor certare leonibus audens.

Countries of Gray-hounds. Generation by Tygres.

The greateſt dogs of this kind are in *India*, *Scythia*, and *Hircania*, and among the *Scythians* they joyn them with Aſſes in yoak for ordinary labour. The Dogs of *India* are conceived by Tygres, for the *Indians* will take divers females or Bitches, and faſten them to trees in woods where Tygres abide: whereunto the greedy ravening Tyger cometh, and inſtantly devoureth ſome one or two of them, if his luſt do not reſtrain him, and then being ſo filled with meat (which thing Tygers ſeldom meet withall) preſently he burneth in luſt, and ſo limeth the living Bitches, who are apt to conceive by him: which being performed, he retireth to ſome ſecret place, and in the mean time the *Indians* take away the Bitches, of whom come theſe valorous Dogs, which retain the ſtomach and courage of their father, but the ſhape and proportion of their mother, yet do they not keep any of the firſt or ſecond litter, for fear of their Tygrian ſtomachs, but make them away and reſerve the third litter.

Ariſtotle.
Pliny.

Of this kinde were the Dogs given to *Alexander* by the King of *Albania*, when he was going into *India*, and preſented by an *Indian*, whom *Alexander* admired, and being deſirous to try what vertue was contained in ſo great a body, cauſed a Bore and a Hart to be turned out to him, and when he would not ſo much as ſtir at them, he turned Bears unto him, which likewiſe he diſdained, and roſe not from his kennel; wherewithal the King being moved, commanded the heavy and dull Beaſt (for ſo he termed him) to be hanged up: his keeper the *Indian* informed the King, that the Dog reſpected not ſuch Beaſts, but if he would turn out unto him a Lyon, he ſhould ſee what he would do.

A hiſtory of Alexanders Dogs.
Gillius.
Ælianus.
Pliny.
Strabo.
Pollux.

Immediately a Lyon was put unto him, at the firſt ſight whereof he roſe with ſpeed (as if never before he ſaw his match or adverſary worthy his ſtrength) and briſtling at him, made force upon him, and the Lyon likewiſe at the Dog; but at the laſt, the Dog took the chaps or ſnowt of the Lyon into his mouth, where he held him by main ſtrength, untill he ſtrangled him, do the Lyon what he could to the contrary; the King deſirous to ſave the Lyons life, willed the Dog ſhould be pulled off, but the labour of men and all their ſtrength was too little, to looſen thoſe ireful and deep biting teeth which he had faſtned. Then the *Indian* informed the King, that except ſome violence were done unto the Dog to put him to extream pain, he would ſooner dye then let go his hold; whereupon it was commanded to cut off a piece of the Dogs tail; but the Dog would not remove his teeth for that hurt: then one of his legs were likewiſe ſevered from his body, whereat the Dog ſeemed not apalled; after that another leg, and ſo conſequently all four, whereby the trunck of his body fell to the ground, ſtill holding the Lyons ſnowt within his mouth; and like the ſpirit of of ſome malicious man, chuſing rather to dye then ſpare his enemy. At the laſt, it was commanded to cut his head from the body, all which the angry Beaſt endured, and ſo left his bodileſs head hanging faſt to the Lyons jaws: whereat the King was wonderfully moved, and ſorrowfully repented his raſhneſs in deſtroying a Beaſt of ſo noble a ſpirit, which could not be daunted with the preſence of the King of Beaſts: chuſing rather to leave his life, then depart from the true ſtrength and magnanimity of minde. Which thing the *Indian* perceiving in the King, to mitigate the Kings ſorrow, preſented unto him four other Dogs of the ſame quantity and nature, by the gift whereof he put away his paſſion, and received reward with ſuch a recompence, as well beſeemed the dignity of ſuch a King, and alſo the quality of ſuch a preſent.

Pliny reporteth alſo, that one of theſe did fight with ſingular courage and policy with an Elephant: and having got hold on his ſide, never left till he overthrew the Beaſt, and periſhed underneath him. Theſe Dogs grow to an exceeding great ſtature; and the next unto them are the *Albanian* Dogs. The *Arcadian* Dogs are ſaid to be generated of Lyons. In *Canaria*, one of the Fortunate Iſlands, their Dogs are of an exceeding ſtature.

Pollux.
The *Albanian* Dogs.

The Dogs of *Creet* are called *Diaponi*, and fight with wilde Boars: the Dogs of *Epirus* called *Chaonides*, of a City *Chaon*, are wonderfully great and fierce; they are likewiſe called *Moloſſi*, of the people of *Epirus* ſo tearmed, theſe are fained to be derived of the Dog of *Cephalus*, the firſt Grayhound whom ſtories mention: and the Poets ſay, that this Gray-hound of *Cephalus*, was firſt of all faſhioned by *Vulcan* in *Moneſian* braſs, and when he liked his proportion, he alſo quickned him with a ſoul, and gave him to *Iupiter* for a gift, who gave him away again to *Europa*, ſhe alſo to *Minos*, *Minos* to *Procris*, and *Procris* gave it to *Cephalus*: his nature was ſo reſiſtable, that he overtook all that he hunted, like the *Teumeſian* Fox. Therefore *Iupiter* to avoid confuſion, turned both the incomprehenſible Beaſts into ſtones. This *Moloſſus*, or *Moloſſus* Dog, is alſo framed to attend the folds of Sheep, and doth defend them from Wolves and Theeves, whereof *Virgil* writeth thus:

Solinus.
Seneca.
The Dogs *Moloſſi*, or of *Creet*.
Ariſtotle.
Albertus.
Varinus.

Veloces Spartæ catulos acremque Moloſſum
Paſce ſero pingui, nunquam cuſtodibus illis
Nocturnum ſtabulis furem incurſusque luporum
Aut imparatos a tergo horrebis Iberos.

Theſe having taken hold, will hardly be taken off again, like the *Indian* and *Perſian* Dogs, for which cauſe they are called *incommodeſtici*, that is, *modi neſcii*, ſuch as know no mean, which cauſed *Horace* to give counſel to keep them tyed up, ſaying:

Teneant acres lora moloſſos.

The people of *Epirus* do uſe to buy theſe Dogs, when they dye, and of this kinde were the Dogs of *Scylla*, *Nicomedes*, and *Eupolides*. The *Hircanian* Dogs are the ſame with the *Indain*. The *Pæonian*, *Perſian*, and *Median*, are called *Syntheroi*, that is companions, both of hunting, and fighting, as *Gratius* writeth:

Pollux.

——*Indocilis dat prœlia Medus.*

The

Xenophon.
Cteſias.
Of people that live upon the milk of Dogs.
Ælianus.
Ælianus.
Dogs devourers of men.
Valerius Max.

The Dogs of *Locus*, and *Lacene*, are alſo very great, and fight with Bores. There are alſo a kinde of people called *Cynamolgi*, neer *India*, ſo called, becauſe for one half of the year they live upon the milk of great Dogs, which they keep to defend their Countrey from the great oppreſſion of wilde Cattel, which deſcend from the Woods and Mountains of *India* unto them yearly, from the Summer ſolſtice to the middle of Winter, in great numbers or ſwarms, liee Bees returning home to their Hives and Hony-combes: Theſe Cattel ſet upon the people, and deſtroy them with their horns, except their Dogs be preſent with them, which are of great ſtomach and ſtrength, that they eaſily tear the wilde Cattel in pieces, and then the people take ſuch as be good for meat to themſelves, and leave the other to their Dogs to feed upon: the reſidue of the year they not only hunt with theſe Dogs, but alſo milk the ſemales, drinking it up like the milk of Sheep or Goats. Theſe great Dogs have alſo devoured men, for when the ſervant of *Diogenes* the *Cynick*, ran away from his maſter, being taken again and brought to *Delphos*, for his puniſhment he was torn in pieces by Dogs. *Euripides* alſo is ſaid to be ſlain by Dogs; whereupon came the proverb *Cunos dike*, a Dogs revenge: for King *Archelaus* had a certain Dog which ran away from him into *Thracia*, and the *Thracians* (as their manner was) offered the ſame Dog in ſacrifice, the King hearing thereof, laid a puniſhment upon them for that offence, that by a certain day they ſhould pay a talent; the people breaking day, ſuborned *Euripides* the Poet (who was a great favourite of the Kings) to mediate for them, for the releaſe of that fine: whereunto the King yeelded: afterward as the ſaid King returned from hunting, his Dogs ſtragling abroad, met with *Euripides*, and tore him in pieces, as if they ſought revenge on him, for being bribed againſt their fellow which was ſlain by the *Thracians*. But concerning the death of this man, it is more probable, that the Dogs which killed him, were ſet on by *Aridæus* and *Cratenas*, two *Theſſalian* Poets, his emulators and corrivals in Poetry, which for the advancement of their own credit, cared not in moſt ſavage and barbarous manner, to make away a better man then themſelves. There were alſo other famous men which periſhed by Dogs, as *Actæon*, *Thraſus*, and *Linus*; of *Thraſus*, *Ovid* writeth thus;

Prædaque ſis illis quibus eſt Laconia Delos
Ante diem rapto non adeunda Thraſo.

And of *Linus* and *Actæon* in this manner;

Quique verecundæ ſpeculantem membra Dianæ,
Quique Crotopiaden diripuere Linum.

Raniſius.
Raniſ. Text.

Lucian that ſcoffing Apoſtate, who was firſt a Chriſtian, and afterward endevoured all his wit to rail at Chriſtian Religion, even as he lacerated and rent his firſt profeſſion, ſo was he rent in pieces by Dogs; and *Heraclitus* the Philoſopher of *Athens*, having been long ſick, and under the hands of Phyſitians, he oftentimes anointed his body with Bugils ſewet, and on a day having ſo anointed himſelf, lying abroad ſleeping in the Sun, the Dogs came, and for the deſire of the fat tore his body in pieces. I cannot here forget that memorable ſtory of two Chriſtian Martyrs, *Gorgonius* and *Dorotheus*, which were put to death under *Diocletian* in the ninth perſecution, and when they were dead, their carkaſes were caſt unto hungry Dogs of this kinde, kept for ſuch purpoſes, yet would not the Dogs once ſo much as ſtir at them, or come neer to touch them; and becauſe we may judge that the ravening nature of theſe creatures was reſtrained by divine power: We alſo read that when *Benignus* the Martyr, by the commandment of *Aurelian*, was alſo thrown alive to be devoured of theſe Dogs, he eſcaped as free from their teeth, as once *Daniel* did from the Lyons den. I may alſo adde unto theſe the Dogs of *Alania* and *Illyria*, called *Maſtini*, who have their upper lips hang over their neather, and look fierce like Lyons, whom they reſemble in neck, eyes, face, colour, and nails; falling upon Bears, and Boars, like that which *Anthologius* ſpeaketh of, that leaped into the Sea after a *Dolphin*, and ſo periſhed; or that called *Lydia*, ſlain by a Boar; whoſe Epitaph *Martial* made as followeth:

Amphitheatrales inter nutrita magiſtros
Venatrix ſilvis aſpera, blanda domi,
Lydia dicebar, domino fidiſſima dextro,
Qui non Erigones mallet habere Canem,
Nec qui Dictæa Cephalum de gente ſecutus,
Luciferæ pariter venit ad aſtra deæ.
Non me longa dies, nec inutilis abſtulit ætas,
Qualia Dulychio fata fuere cani.
Fulmineo ſpumantis apri ſum dente perempta,
Quantus erat Calydon, aut Erymanthe tuus.
Nec queror, infernas quamvis cito rapta per umbras:
Non potui fato nobiliore mori.

The French Dogs.

There be in *France* certain great Dogs (called *Auges*) which are brought out of *Great Britain*, to kill their Bears, Wolves, and wilde Boars; theſe are ſingularly ſwift and ſtrong, and their leaders, the better to arm them againſt the teeth of other Beaſts, cover ſome of their parts with thick clouts, and their necks with broad collars, or elſe made of Badgers skins. In *Gallia Narbon*, they call them *Limier*, and the *Polonians* call all made Dogs for the Wolf, and ſuch like Beaſts, *Viſlu*: and peculiarly for the Bear and Bore, *Charzii*, for Hares and Fowl, *Pobicdnizcii*, and Dogs of a middle ſcantling betwixt the firſt and the ſecond, *Pſit*.

Gray-hounds are the leaſt of theſe kindes, and yet as ſwift and fierce as any of the reſidue, refuſing no kinde of Beaſt, if he be turned up thereunto, except the Porcupine, who caſteth her ſharp pens into the mouth of all Dogs. The beſt Gray-hound hath a long body, ſtrong and reaſonable great, a neat ſharp head, and ſplendent eyes, a long mouth, and ſharp teeth, little ears and thin griſtles in them; a ſtraight neck, and a broad and ſtrong breaſt, his fore-legs ſtraight and ſhort, his hinder-legs long and ſtraight, broad ſhoulders, round ribs, fleſhy buttocks, but not fat, a long tail, ſtrong and full of ſinews, which *Nemeſian* deſcribeth elegantly in theſe verſes;

The qualities and parts of a good Gray-hound.
Pliny.
Xenophon.

——Sit cruribus altis
Coſtarum ſub fine decenter prona carinam:
Renibus ampla ſatis validis diductaque coxas
Sit rigidis, multamque gerat ſub pectore lato,
Quæ ſenſim rurſus ſicca ſe colligat alvo:
Cuique nimis molles fluitent in curſibus aures.
Elige tunc curſu facilem, facilemque recurſu,
Dum ſuperant vires, dum læto flore juventus.

Of this kinde, that is alway the beſt to be choſen among the whelps, which weigheth lighteſt: for it will be ſooneſt at the game, and ſo hang upon the greater beaſts hindering their ſwiftneſs, untill the ſtronger and heavier Dogs come to help: and therefore beſides the marks, or neceſſary good parts in a Gray-hound already ſpoken of, it is requiſite that he have large ſides, and a broad midriffe or film about his heart, that ſo he may take his breath in and out more eaſily; a ſmall belly, for if it be great, it will hinder his ſpeedy courſe; likewiſe that he have long legs; thin and ſoft hairs; and theſe muſt the Hunter lead on the left hand if he be a foot, and on the right hand if he be on Horſeback.

Belliſarius.
Pollux.

The beſt time to try them, and train them to their game, is at twelve months old, howbeit ſome hunt them at ten months, if they be males, and at eight months, if they be female; yet is it ſureſt not to ſtrain them, or permit them to run any long courſe till they be twenty months old, according to the old verſe;

The time of teaching a Gray-hound.

Libera tunc primum conſueſcant colla ligari,
Iam cum bis denos Phœbe reparaverit ortus,
Sed parvos vallis ſpatio ſeptove novelli
Nec curſus virtute parem, &c.

Keep them alſo in the leam or ſlip while they are abroad, untill they ſee their courſe, I mean', the Hare or Deer, and looſen not a young Dog, till the game have been on foot a good ſeaſon, leſt if he be greedy of the prey he ſtrain his limbs till they break. When the Hare is taken, divide ſome part thereof among your Dogs, that ſo they may be provoked to ſpeed by the ſweetneſs of the fleſh.

Ariſtotle.
Xenophon.

The *Lacedemon* Gray-hound was the beſt breed, they were firſt bred of a Fox and a Dog, and therefore they were called *Alopecides*, theſe admit copulation in the eight moneth of their age., and ſometime in the ſixt, and ſo continue bearing as long as they live, bearing their burthen the ſixth part of a year, that is, about ſixty days, one or two, more or leſs: and they better conceive, and are more apt to procreation while they are kept in labour, then when they lie idle without hunting. And theſe *Lacedemon* Dogs differ in one thing from all other Dogs whatſoever, for whereas the male out-liveth in vulgar Dogs of all Countries the female, in theſe the female out-liveth the male, yet the male performeth his labour with more alacrity, although the female have the ſharper ſenſe of ſmelling.

The time of engendring.
Pliny.
Ariſtotle.

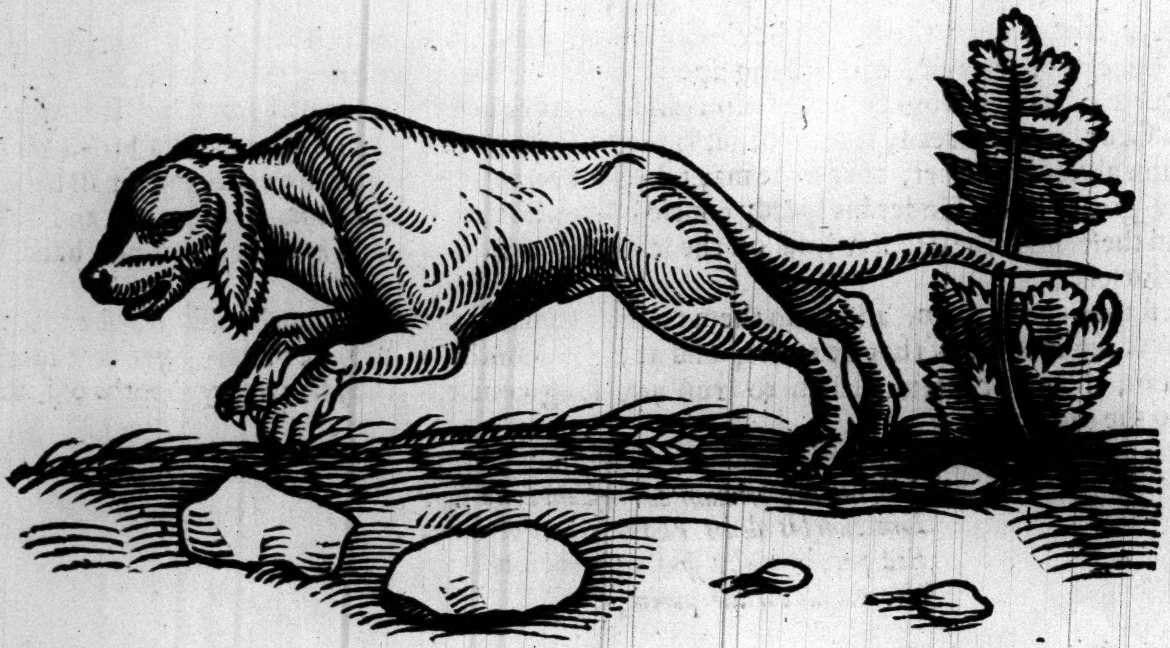
The nobleſt kinde of Dogs for the Hare keep home, unleſs they be led abroad, and ſeldom bark: they are the beſt which have the longeſt necks, for which cauſe they uſe this artificial invention to ſtretch their necks; they dig a deep hole in the earth, wherein they ſet the Gray-hounds meat, who being hungry, thruſteth down his head to take it, but finding it to be paſt his reach, ſtretcheth his neck above the meaſure of nature, by cuſtom whereof, his neck is very much lengthened. Other place the Gray-hound in a ditch, and his meat above him, and ſo he reacheth upward, which is more probable. It is the property of theſe Dogs to be angry with the leſſer barking Curs, and they will not run after every trifling Beaſt, by ſecret inſtinct of nature, diſcerning what kinde of Beaſt is worthy or unworthy of their labour, diſdaining to meddle with a little or vile creature. They are nouriſhed with the ſame that the ſmaller hunting Dogs are; and it is better to feed them with milk then whay. There are of this kinde called *Veltri*, and in *Italian*, *Veltro*; which have been procreated by a Dog and Leopard, and they are accounted the ſwifteſt of all other. The Gray-hounds which are moſt in requeſt among the *Germans*, are called *Windſpill*, alluding to compare their ſwiftneſs with

Albertus.
An invention to make a Gray-hound have a long neck.
The diet of a good Gray-hound.

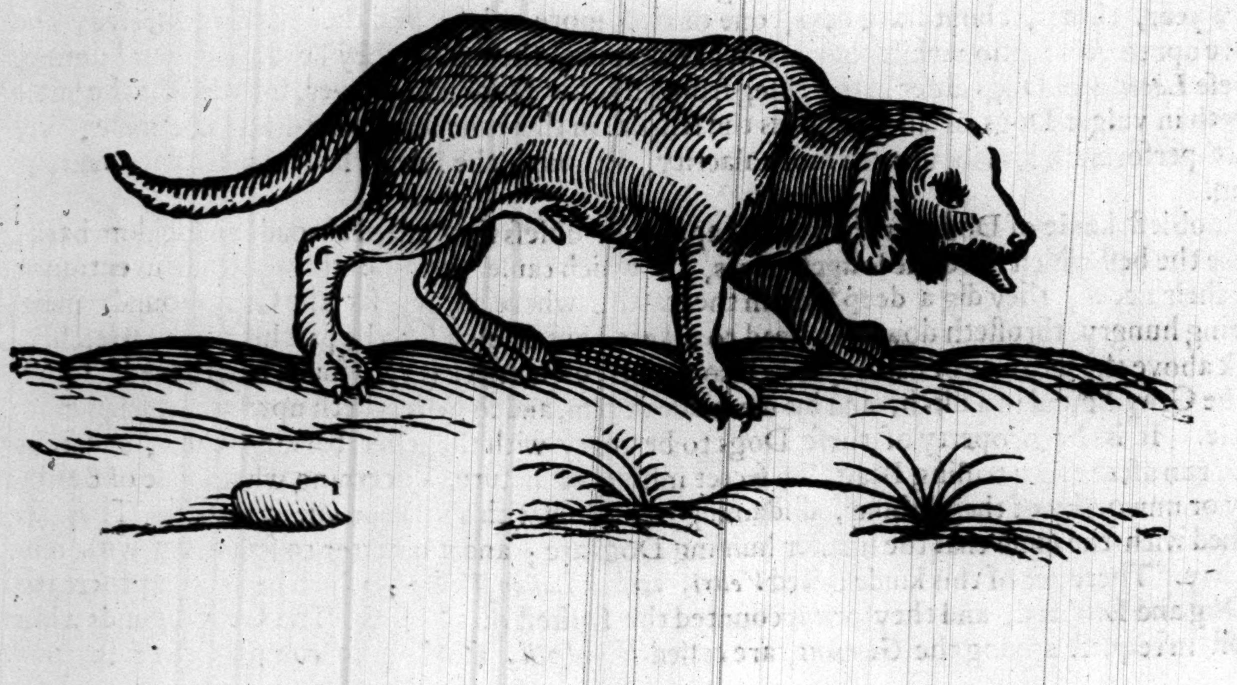
with the winde, the ſame are alſo called *Turkiſchwind* and *Hetzhund*, and *Falco* a *Falcon*, is a common name whereby they call theſe Dogs. The *French* make moſt account of ſuch as are bred in the Mountains of *Dalmatia*, or in any other Mountains, eſpecially of *Turkey*; for ſuch have hard feet, long ears, and briſtle tails.

There are in *England* and *Scotland*, two kindes of hunting Dogs, and no where elſe in all the world; the firſt kinde they call in *Scotland*, *Ane Rache*, and this is a foot-ſmelling creature, both of wilde Beaſts, Birds, and Fiſhes alſo, which lie hid among the Rocks; the female hereof in *England*, is called a *Brache*. The ſecond kinde is called in *Scotland*, a *Sluth-hound*, being a little greater then the hunting Hound; and in colour for the moſt part brown, or ſandy-ſpotted. The ſenſe of ſmelling is ſo quick in theſe, that they can follow the foot-ſteps of theeves, and perſue them with violence untill they overtake them; and if the theef take the water, they caſt in themſelves alſo, and ſwim to the other ſide, where they finde out again afreſh their former labour, untill they finde the thing they ſeek for: for this is common in the Borders of *England* and *Scotland*, where the people were wont to live much upon theft; and if the Dog brought his leader unto any houſe, where they may not be ſuffered to come in, they take it for granted, that there is both the ſtollen goods, and the theef alſo hidden.

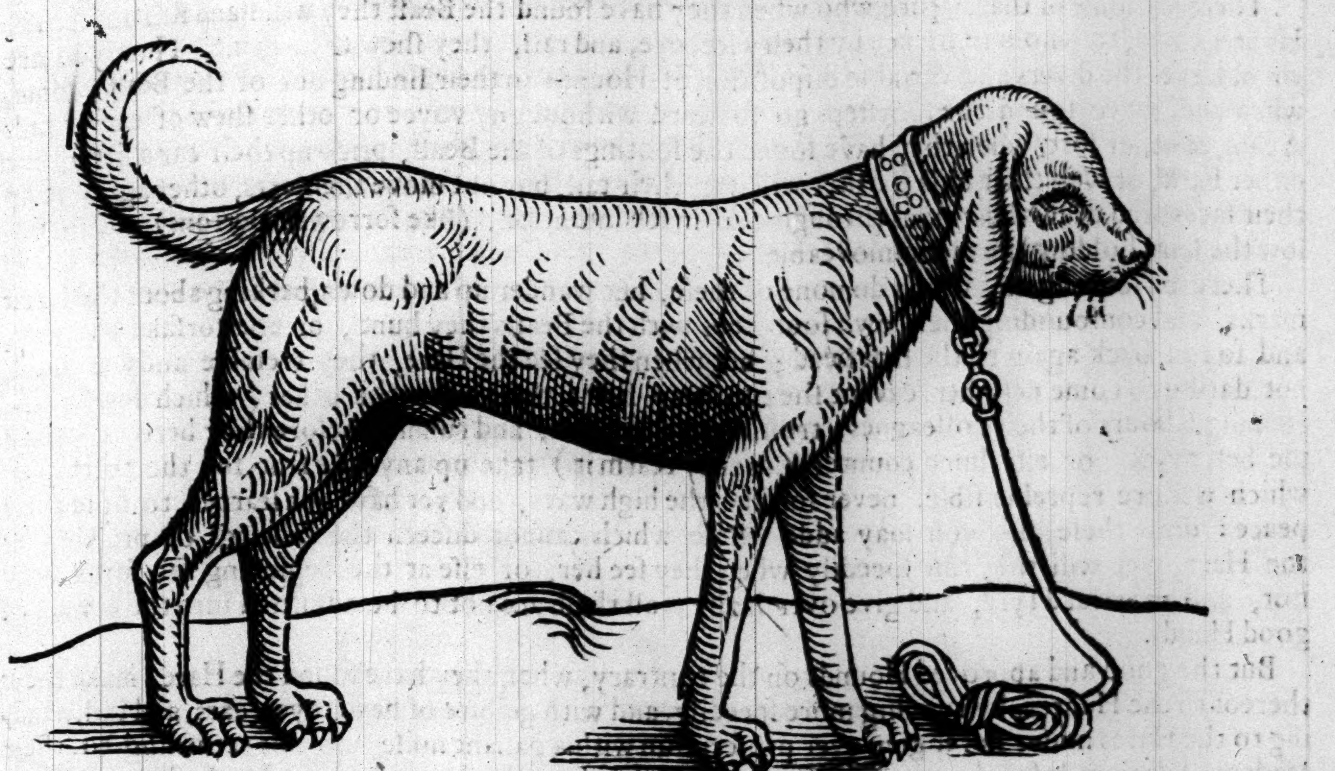
The Hunting Hound of *Scotland* called ***RACHE***, and in *Engliſh* a ***HOUND***.



The *SLVTH-HOVND* of *Scotland*, called in *Germany* a *SCHLATTHVND*.



The *Engliſh* BLOOD-HOVND.



WE are to diſcourſe of leſſer hunting Dogs in particular, as we finde them remembred in any Hiſtories & deſcriptions, Poets or other Authors, according to the ſeveral Countries of their breed and education; and firſt for the *Britiſh* Dogs, their nature and qualities hereafter you ſhall have in a ſeveral diſcourſe by it ſelf. The Blood-hound differeth nothing in quality from the *Scottiſh* Sluth-hound, ſaving they are greater in quantity, and not alway of one and the ſame colour; for among them they are ſometime red, ſanded, black, white, ſpotted, and of ſuch colour as are other Hounds, but moſt commonly brown or red.

The vertue of ſmelling called in *Latine*, *Sagacitas*, is attributed to theſe as to the former hunting Hound, of whom we will firſt of all diſcourſe, and for the qualities of this ſenſe, which maketh the Beaſt admirable, *Plautus* ſeemeth to be of opinion, that it received this title from ſome Magicians or ſage Wiſards (called *Sagæ*) for this he ſaith; ſpeaking of this Beaſt: *Canem hanc eſſe quidem Magis par fuit: naſum ædepol ſagax habet*: It is alſo attributed to Mice, not for ſmelling, but for the ſenſe of their palate or taſte; and alſo to Geeſe: In a Dog it is that ſenſe which ſearcheth out and deſcryeth the rouſts, fourms, and lodgings of wilde Beaſts, as appeareth in this verſe of *Livius Andronicus*.

In Curcul.

What ſmelling or ſagacity in Dogs is.

——————*Cum primis fida Canum vis*
Dirige odoriſequos ad certa cubilia canes.

And for this cauſe it hath his proper Epithets, as *Odora canum vis, promiſſa canum vis, & naribus acres, & utilis*: *Pincianus* called this kinde *Plaudi*, for ſo did *Feſtus* before him, and the *Germans*, *Spurhund*; and *Leidthund, laghund* becauſe their ears are long thin, and hanging down, and they differ not from vulgar Dogs in any other outward proportion, except only in their cry or barking voyce.

The nature of theſe is, being ſet on by the voyce and words of their leader, to caſt about for the ſitting of the Beaſt, and ſo having found it, with continual cry to follow after it till it be wearyed, without changing for any other; ſo that ſometimes the Hunters themſelves take up the Beaſt, at leaſt wiſe the Hounds ſeldom fail to kill it. They ſeldom bark, except in their hunting chaſe; and then they follow their game through woods, thickets, thorns, and other difficult places, being alway obedient and attentive to their leaders voyce, ſo as they may not go forward when he forbiddeth, nor yet remain neer to the Hunters, whereunto they are framed by Art and diſcipline, rather then by any natural inſtinct.

Belliſarius.

The White Hounds are ſaid to be the quickeſt ſented and ſureſt noſed, and therefore beſt for the Hare: the black ones for the Boar, and the red ones for the Hart and Roe: but hereunto I cannot agree, becauſe their colour, (eſpecially of the two later) are too like the game they hunt; although there can be nothing certain collected of their colour, yet is the black Hound harder and better able to endure cold, then the other which is white. In *Italy* they make account of the ſpotted one, eſpecially white and yellowiſh, for they are quicker noſed: they muſt be kept tyed up till they hunt, yet ſo as they be let looſe now and then a little to eaſe their bellies, for it is neceſſary that their kennel be kept ſweet and dry.

It is queſtionable how to diſcern a Hound of excellent ſenſe, (yet as *Blondus* ſaith) the ſquare and flat noſe is the beſt ſign and index thereof: likewiſe a ſmall head, having all his legs of equal

The choice of a Hound of the beſt noſe.

equal length, his breaſt not deeper then his belly, and his back is plain to his tail, his eyes quick, his ears long hanging, but ſometimes ſtand up: his tail nimble, and the beak of his noſe alway to the earth, and eſpecially ſuch as are moſt ſilent or bark leaſt.

Xenophon.
Omni Bonus.
Oppianus.

There are ſome of that nature, who when they have found the Beaſt they will ſtand ſtill untill their Hunter come, to whom in ſilence by their face, eye, and tail, they ſhew their game. Now you are to obſerve the divers and variable diſpoſition of Hounds in their finding out of the Beaſt: ſome, when they have found the footſteps go forward without any voyce or other ſhew of ear or tail. Again, another ſort, when they have found the footings of the Beaſt, prick up their ear a little, but either bark, or wag their tails; other will wag their tail, but not move their ears, other again wring their faces, and draw their skins through over-much intention, (like ſorrowful perſons) and ſo follow the ſent, holding the tail immoveable.

There be ſome again, which do none of theſe, but wander up and down, barking about the ſureſt marks, and confounding their own foot-ſteps with the Beaſts they hunt, or elſe forſake the way, and ſo run back again to the firſt head; but when they ſee the Hare, they tremble and are afraid, not daring to come near her, except ſhe run away firſt: theſe with the other, which hinder the cunning labours of their colleagues, truſting to their feet, and running before their betters, deface the beſt mark, or elſe hunt counter (as they tearm it) take up any falſe ſent for the truth, or which is more reprehenſible, never forſake the high ways, and yet have not learned to hold their peace: unto theſe alſo you may adde thoſe which cannot diſcern the footings or pricking of the Hare, yet will they run ſpeedily when they ſee her, or elſe at the beginning ſet forth very hot, and afterward tyre, and give over lazily; all theſe are not to be admitted into the kennel of good Hunds.

But the good and approved Hounds on the contrary, when they have found the Hare, make ſhew thereof to the Hunter, by running more ſpeedily, and with geſture of head, eyes, ears, and tail, winding to the Hares muſe, never give over proſecution with a gallant noiſe, no not returning to their leaders, leſt they loſe advantage: they have good and hard feet, and are of ſtately ſtomacks, not giving over for any hate, and fear not the rocks or other mountain places, as the Poet expreſſeth:

Quæ laus prima canum? quibus eſt audacia præceps:
Quæ nunc elatis rimantur naribus auras:
Et perdunt clamore feram, dominumque vocando
Inſequitur tumuloſque canis camposque per omnes.
Venandi ſagax virtus vireſque ſequendi,
Et nunc demiſſo quærunt veſtigia roſtro.
Increpitant quem ſi collatis effugit armis,
Noſter in arte labor poſitus, ſpes omnis in illa, &c.

And therefore alſo it is good oftentimes to lead the Hounds to the Mountains for exerciſe of their feet, when you have no Hare or other Beaſt.

The beſt time of hunting.

And whereas the nature of this Hare is, ſometimes to leap and make headings, ſometimes to tread ſoftly, without any great impreſſion in the earth, or ſometimes to lye down and ever to leap or jump out & in to her own fourm or ſitting, the poor Hound is ſo much the more buſied and troubled to retain the ſmall ſavour of her footings which ſhe leaveth behinde her: for this cauſe alſo it is to be noted, that the Hound muſt be holp not only with the voyce, eye, and hand of the Hunter, but alſo with a ſeaſonable time, for in froſty weather the ſavour congealeth and freezeth with the earth, ſo as you cannot hunt with any certainty untill the thaw thereof, or till the Sun ariſe.

Likewiſe if rain fall betwixt the going of the Hare and the hunting time, you cannot hunt till the water be dryed up, for the drops diſperſe the ſent of the Hare, and the dry weather recollecteth it again. The Summer time alſo is not for hunting, by reaſon the heat of the earth conſumeth the ſavour, and the night being then but ſhort, the Hare travelleth but little, feeding only in the evening and morning. Likewiſe the fragrancy of every green herb yeeldeth ſuch a ſavour, as doth not a little obliterate and overſway the ſavour of the Beaſt: and therefore *Ariſtotle* in his Wonders, ſheweth that in *Ætna* in the Summer time, there are ſuch plenty of ſweet ſmelling flowers, eſpecially of Violets, which overcome the noſtrils of the Hounds, ſo as in vain they follow the Hare. The beſt time therefore for hunting with theſe Hounds is the Autumn or fall of the leaf, becauſe that then the odours of herbs are weakned, and the earth barer then at other times. The beſt manner to teach theſe Hounds, is to take a live Hare and trail her after you upon the earth, now one way, now another; and ſo having drawn it a convenient ſpace, hide it in the earth; afterward ſet forth your Hound neer the trail, who taking winde, runneth to and fro neer the woods, fields, paſtures, path-ways, and hedges, untill he finde which way the Hare is gone, but with a ſoft and gentle pace, untill at length coming neer the lodged Hare, he mendeth his pace, and beſtirreth himſelf more ſpeedily, leaping upon his prey like ſome Serpent, or as an arrow ſhot out of a Bow, and ſo tearing it in pieces or killing it with joy, loadeth himſelf with his conqueſt, and bringeth it to his Maſter with triumph, who muſt receive both Dog and it, with all tokens of love into his own boſome, which thing cauſed *Nemeſian* to write thus;

The firſt training of Hounds.

Quæ freta ſi Morinum dubio refluentia ponto,
O quanta eſt merces, & quantum impendia ſupra

Protinus,

Si non ad ſpeciem mentituroſque decores
Protinus, hæc una eſt catulis jactura Britannis.
——*Diverſa Britannia mittit*
Veloces, noſtrique orbis venatibus aptos.

Of the Hounds of ſundry Countries.

There are divers Countrey Dogs like unto theſe, as the *Geloni* and *Gnoſii*, which cauſed *Ovid* to reckon and call *Ichnobates* one of *Actæons* Dogs *Gnoſius*: whom *Oppianus* compareth to the *Polypus* fiſh, which ſmelling in the waters the leaves of Olives, by the ſent is drawn to the land to eat them. The *Spaniſh* Dogs whom the *French* call *Eſpagneulx*, have long ears, but not like a Braches, and by their noſes hunt both Hares and Conies, they are not rough, but ſmooth haired. The *Tuſcan* Dogs are commended by *Nemeſian*; notwithſtanding, they are not beautiful to look upon, having a deep ſhaggy hair, yet is their game not unpleaſant.

Quin & Tuſcorum uon eſt extrema voluptas
Sæpe Canum: forma eſt illis licet obſita villo, &c.
Haud tamen injucunda dabunt tibi munera præda, &c.
Atque etiam leporum ſecreta cubilia monſtrant.

The *Umbrian* Dog is ſharp noſed, but fearfull of his ſport, as *Gratius* expreſſeth.

——*Aut exigit Umber*
Nare ſagax e calle feras,
At fugit adverſus idem quos efferent hoſtes
Tanta foret virtus; & tantum vellet in armis.

The *Ætolian* Dogs have alſo excellent ſmelling noſes, and are not ſlow or fearful, whom *Gratius* expreſſeth as followeth:

At clangore citat, quos nondum conſpicit apros,
Ætola quæcunque Canis de ſtirpe (malignum
Officium) &c.——
Seu fruſtra nimius properat furor,
Mirum quam celeres & quantum nare metentur:

The *French* Dogs are derived or propagated of the Dogs of Great *Britain*, and are ſwift and quick ſented, but not all, for they have of divers kindes, as *Gratius* expreſſeth in theſe words;

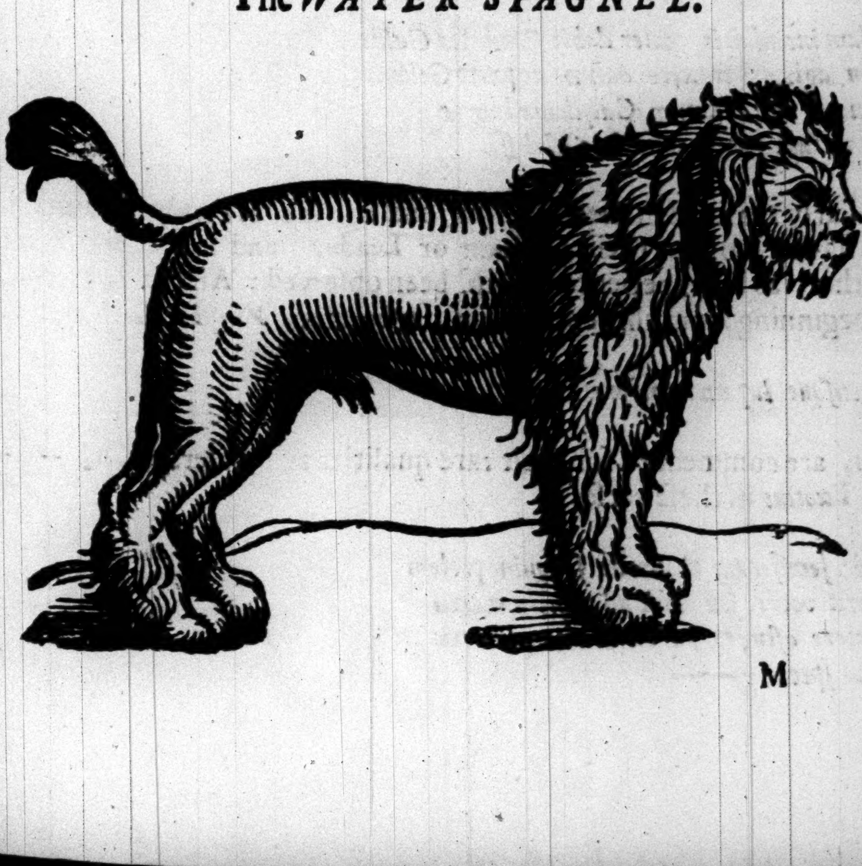
Magnaque diverſos extollit gloria Celtas.

They are very ſwift, and not ſharp noſed, wherefore they are mingled in generation with the *Umbrian* Dogs, and therefore he celebrateth in many verſes, the praiſe of the firſt Hunter (as he taketh him.) *Hagno Bæonius* and his Dog *Metagon*, and afterward the Dog *Petronius*: but it may be, that by *Metagon*, he meaneth the Dogs of *Lybia*, becauſe there is a City of that name; and by *Petronius* the Dogs of *Italy*, for *Petronia* is a river that falleth into *Tiber*.

The *Grammarians* call a Dog engendered of a Hound, and an ordinary *French* Dog, *Vertagus*, a Tumbler: becauſe he ſetteth himſelf to hunting, and bringeth his prey to his Maſter, whereupon *Martial* made this *Diſtichon*:

Non ſibi, ſed Domino venatur vertagus acer,
Illæſum leporem qui tibi dente feret.

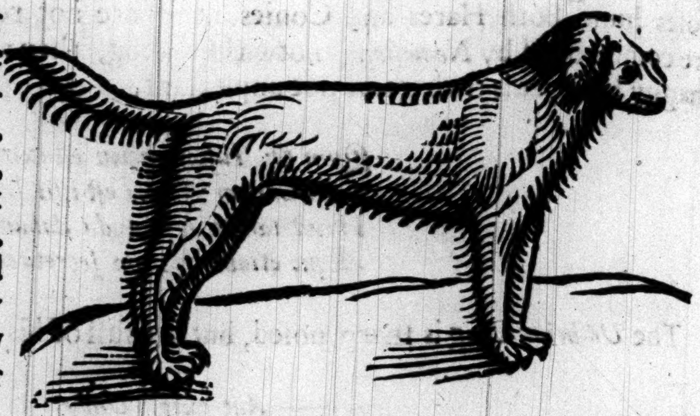
The *WATER SPAGNEL.*



Such be alſo other ſmelling Dogs, called in the *German* tongue (*Lochundle*) that is, Terriars or Beagles: theſe will ſet upon Foxes and Badgers in the earth, and by biting expel them out of their dens; whereof *Ariſtotle* reporteth a wonder, that one of them followed a Fox under the ground in *Bœotia*, and there made ſo great a noiſe by barking, that the Hunters went alſo into the Cave, where they ſaw many ſtrange things which they related to the chief Magiſtrate.

Unto all theſe ſmelling Dogs, I may alſo adde the water Spagnel, called in *French*, *Barbeti*;

and in *Germany* (*Waſſerhund*:) who is taught by his Maſter to ſeek for things that are loſt, (by words and tokens) and if he meet any perſon that hath taken them up, he ceaſeth not to bay at him, and follow him till he appear in his Maſters preſence. Theſe alſo will take water-fowl, and hunt Otters and Beavers, (although Hounds alſo will do the ſame) and watch the ſtroke of a Gun when the fowler ſhooteth, and inſtantly run into the water for the dead fowl, which they bring to their Maſter. They uſe to ſhear their hinder parts, that ſo they may be the leſs annoyed in ſwimming; whoſe figure is in the bottom of the former page deſcribed.



I may here alſo adde the Land-Spagnel, attending a Hawk, who hath no proper name in *Engliſh*, except from the fowl he hunteth; for which cauſe the *French* call them Dogs of the Quails; and the *Germans*, *Vogel-hund*, a fowl-Hound; although all Birds little fear Dogs, except the Buſtard, who hath a heavy body, and is not able to fly far: yet are theſe taught by Falconers to retrive and raiſe Partridges, for they firſt take them into the fields, and ſhew them Partridges, whom after they have ſavoured twice or thrice, by cuſtom they remember, and being uncoupled, will beſtir themſelves into all corners to finde them, being after a while very proud of employment, and very underſtanding in their game: they are for the moſt part white or ſpotted, with red or black: the *Polonians* call them (*Pobicnitzii*) and a Poet deſcribeth them thus:

Stroza.

Nare ſagax alius, campiſque undiſque volucres
Quærit, & aduncus huc indefeſſus & illinc.
Diſcurrit.——————

Of the mixt kinde of *Dogs* calleed in *Engliſh* MANGRELS or MONGRELS.

THoſe we call Mangrels, which though they be on both ſides propagated by Dogs, yet are they not of one kinde: for as once Dogs coupled with Aſſes, Leopards, Lyons, Tygers, Apes, or any ſuch Beaſts, according to the old Verſe;

Cani congeneres Lupus, Vulpes, Hyæna, Tygris.

So now it is ordinary for the Gray-hound to couple with the Maſtive, the Hound with the Gray-Hound, the Maſtive with the Shepheards Dog, and the Shepheards Dog with any other Cur or Beagle: of theſe kindes we will now ſpeak in order. And it is not to be omitted, that this commixtion of kindes have been invented by Hunters for the amendment of ſome natural fault, or defect they found in the *Monophyli*, that is, one ſingle kinde, and ſo hereby they added ſome qualities to their kinde which they wanted before either in ſtrength of body, or craft of wit: for they derive both of theſe from their Sires, wherefore *Oppianus* declareth, that in the commixtion of Dogs, the Ancients coupled together theſe kindes, the *Arcadians* with the *Eleians*, the *Cretenſians* with the *Pæonians*, the *Carians* with the *Thracians*, the *Lacedemonians* with the *Tyrrhenian*, the *Sarmatian* with the *Iberian*, and the *Gallican* Dogs with the *Umbrian*, becauſe they want the quick ſenſe of ſmelling: according to theſe verſes:

Commixtion of kindes in procreation.
Pliny.

Quondam inconſultis mater dabit Umbrica Gallis
Senſum agilem, traxere animos de parte Gelonæ
Hyrcano & vanæ tantum Calydonia linguæ
Exibit vitium patre emendata Moloſſo.

Theſe Dogs ſo generated are peculiarly tearmed in *Greek*, *Hybris*, and *Hybrida*, as *Porphyrius* writeth. The *French* Wolves were wont to have a Dog for their Captain or Leader, and it is ordinary for Wolves and Dogs to couple together, as by experience it hath been obſerved: And it is certain, that Maſtive Dogs had their firſt beginning from this copulation, wherefore *Virgil* calleth one of theſe Dogs *Lyciſca*.

——*Referenſque lupum torvo ore Lyciſca.*

The Dogs which are bred of *Thoes*, are commended for their rare qualities and underſtanding parts in the time of Wars, by *Hagnon Bœotius* in theſe verſes;

Hic & ſemiferam thoum de ſanguine prolem
Seu norit voces, ſeu nudi ad pignora martis
Et ſubiere aſtu, & parvis domuere lacertis
Vulpina ſpecie.——

The Dogs of *Hircania* do of themſelves run into the Woods, (like adulterers) and ſeek out the Tygers to engender with them, which thing *Gratius* remembreth elegantly in many verſes:

> ———*Ultroque gravis ſuccedere Tigri*
> *Auſa canis, majore tulit de ſanguine fœtum,*
> *Excutiet ſilva magnus pugnator adepta.*

In the rank of theſe Mangrels, I may adde in the next place thoſe Dogs, called by the *Græcians*, *Symmaſchi*, and *Somatophylakes*, becauſe they attended upon men in their travels and labors to defend them, and are taught to fight for them, both againſt men and other beaſts; wherein they are as ready to take knowledge of violence offered to their Maſter, and alſo to revenge or hinder it, as a reaſonable creature can be. Theſe are called of the *Latines*, *Canes ſocii defenſores*, ſociable Dogs; of which there be two ſorts, the firſt, is leſſer, being of rough and long curled hair, his head covered with long hair, of a pleaſant and tractable diſpoſition, never going far from his Maſter, ſuch was the Dog of *Tobit*, and the Dog of *Godrus* the Poet, called *Chiron*, whereof *Iuvenall* maketh mention; whoſe benevolence and ready minde toward their keepers and nouriſhers may appear by this ſtory of *Colophonius*.

Of Dogs defenders and attenders on men.
Blondus.
Ælianus.

Upon a ſeaſon, he with a Servant, and a Dog, went to a certain Mart to buy Merchandiſe, and as they travelled, his Servant which carryed the purſe, diverted a little out of the way, to perform the work of nature, and the Dog followed him: which being done, he forgat to take up the Purſe of mony that had fallen from him to the ground in that place, and ſo departed; the Dog ſeeing the purſe, lay down beſide it, and ſtirred not a foot; afterward the Maſter and man went forward, miſſing their Dog, and not their money, untill they came to their Mart or Fair, and then for want of mony were conſtrained to return back again without doing any farther thing: wherefore they reſolved to go back again the ſame way they came, to ſee if they could hear of their mony, and at laſt when they came to the place where the ſervant had left the purſe, there they found both Dog and mony together; the poor Cur ſcarſe able to ſee or ſtand for hunger: when he ſaw his Maſter and the ſervant come unto him, he removed from the earth, but life not able to tarry any longer in his body, at one and the ſame time in the preſence of his friends and nouriſhers he alſo dyed, and took of them both his laſt farewel, through the faithful cuſtody of their forgotten goods; for which it is apparent, that one part of their faithful diſpoſition is, to keep their nouriſhers goods committed unto them, as ſhall be afterward more at large manifeſted.

A hiſtory of the rare truſt of a Dog, and care to keep his Maſters goods.
Tzetzes.

Their watchful care over their Maſters may appear alſo by theſe ſtories following, for the Dogs of *Xantippus* followed their Maſter to the Ship, at what time he was forewarned by the Oracle to depart out of *Athens*, by reaſon of the *Perſians* war in *Greece*, and ſo they ſailed with him to *Salamine*; and as they ſailed, by the way he commanded one of them to be caſt into the Sea, who continued ſwimming after the Ship untill he dyed, for which cauſe his Maſter buryed him.

Ælianus.
Tzetzes.

When *Gelon* the *Syracuſan*, in his ſleep had a fearful dream, that he was ſtrucken with fire from Heaven, and with impreſſion of fear, cryed out very lamentably: his Dog lying beſide him, and thinking that ſome peril or theef was doing violence to his Maſter, he preſently leaped up to the bed, and with ſcratching and barking awaked him, and ſo was he delivered from a horrible fear, by the barking of his Dog.

Aſclepiades.
Ælianus.
Pollux.

The *Tyrians* which have the beſt and the firſt purple in the world, are ſaid in Hiſtory to have it by the firſt occaſion of *Hercules* Dog. *Hercules* falling in love with a Nymph called *Tyro*, and travelling toward her with his Dog, he ſaw the purple fiſh creeping upon a ſtone, the hungry Dog caught the fiſh to eat it, and having devoured it, his lips were all dyed or coloured with the ſame: when the Virgin Nymph ſaw that colour upon the Dogs lips, ſhe denyed the love of *Hercules*, except he could bring her a garment of that colour, whereupon the valiant man knowing by what occaſion the Dogs lips received ſuch a tincture, went and gathered all the purple fiſhes and worms he could finde, and preſſing their blood out of them, therewithal coloured a garment, and gave it to the Nymph; for reward whereof, he poſſeſſed the Virgin, being by this means the firſt inventor of the *Phœnician* tincture.

Among theſe are to be remembred thoſe loving Dogs, who either have fought for their Maſters and ſo defended them, or elſe declared them that murdered their keepers, or that which is more admirable, leaped into the burning fires which conſumed the dead bodies of their nouriſhers. Such an one was the Dog of *Calvus*, who being ſlain in a certain civil War at *Rome*, and his enemies coming about him to cut off his head, his poor Dog interpoſed his body betwixt the blows, and would not ſuffer any foe once to touch his Maſters carcaſs, untill by more then ſix hundred ſouldiers the Dog was cut in pieces, ſo living and dying a moſt faithful companion and thankful friend to him that fed him.

Of fighting Dogs, defending Men.
Ælianus.
Tzetzes.

The like was in a Dog of *Darius* the laſt King of the *Perſians*, after he was ſlain by *Beſus* and *Narbazanes* in the battel againſt *Alexander*, & ſo did the Dog of *Silanion* fight for his Maſter againſt theeves, and when he was ſlain, he departed not from the body, but kept it warily from Dogs, Birds, or wilde Beaſts, ſitting upon his privy parts, and covering them untill the *Roman* Captains came and buryed it.

Pliny.

But moſt admirable was the love of a certain Dog to his Maſter puniſhed with death, for the fact againſt *Germanicus*. Among other, this Dog would never go from the priſon, and afterward when his Maſters dead body was brought in the preſence of many *Romans*, the Cur uttered moſt lamentable and ſorrowful cryes; for which cauſe one of the company threw unto him ſome meat, to

Tzetzes.

ſee if that would ſtop his mouth, and procure ſilence: but the poor Dog took up the meat, and carryed to his maſters mouth, not without the ſingular paſſion of the beholders: at laſt the body was taken up and caſt into the river *Tiber*, the poor Dog leaped in after it, and endeavoured by all the means his weakneſs could afford, to keep it from ſinking, in the preſence of an innumerable multitude, which without tears could not look upon the loving care of this brute beaſt.

The Dogs of *Gelon*, *Hieron*, *Lyſimachus*, *Pyrrhus* King of *Epirus*, *Polus* the *Tragœdian*, and *Theodorus*, leaped into the burning fires which conſumed their maſters dead bodies. *Nicias* a certain Hunter going abroad in the Woods, chanced to fall into a heap of burning coals, having no help about him but his Dogs, there he periſhed, yet they ran to the high ways, and ceaſed not with barking and apprehending the garments of paſſengers, to ſhew unto them ſome direful event: and at laſt one of the travellers followed the Dogs, and came to the place where they ſaw the man conſumed, and by that conjectured the whole ſtory. The like did the Dogs of *Marius Cæſarinus*, for by howling they procured company to draw him out of a deep Cave, whereinto he was fallen on Horſe-back, and had there periſhed (being alone) except his Hounds had releaſed him. But that Dogs will alſo bewray the murtherers of their friends and maſters, theſe ſtories following, may evidently manifeſt.

Dogs detectors of murders.

Plutarch.

As King *Pyrrhus* by chance travelled in his Countrey, he found a Dog keeping a dead corps, and he perceived that the Dog was almoſt pined, by tarrying about the body without all food, wherefore taking pity on the beaſt, he cauſed the body to be interred, and by giving the Dog his belly full of meat, he drew him to love him, and ſo led him away: afterward as *Pyrrhus* muſtered his ſouldiers, and every one appeared in his preſence, the Dog alſo being beſide him, he ſaw the murtherers of his maſter, and ſo not containing himſelf, with voyce, tooth, and nail, he ſet upon them: the King ſuſpecting that which followed, examined them if ever they had ſeen or known that Dog, they denyed it, but the King not ſatisfied, charged them that ſurely they were the murtherers of the Dogs Maſter, (for the Dog all this while remained fierce againſt them) and never barked before their appearance, at the laſt their guilty conſciences brake forth at their mouths and tongues end, and ſo confeſſed the whole matter.

Blondus.

The like was of two *French* Merchants which travelled together, and when they came into a certain Wood, one of them roſe againſt the other for deſire of his money, and ſo ſlew him and buryed him. His Dog would not depart from the place, but filled the Wood with howlings and cries; the murtherer went forward in his journey, the people and Inhabitants neer the ſaid Wood, came and found both the murdered corps, and alſo the Dog, which they took up and nouriſhed till the Fair was done, and the Merchants returned, at which time they watched the high wayes, having the Dog with them, who ſeeing the murtherer, inſtantly made force at him without all provocation, as a man would do at his mortal enemy; which thing cauſed the people to apprehend him, who being examined, confeſſed the fact, and received condign puniſhment for ſo foul a deed.

To conclude this diſcourſe with one memorable ſtory more out of *Blondus*, who relateth that there was a certain woman neer *Paris*, who was beloved of two young men; one of them on a day took his ſtaffe and his Dog, and went abroad (as it was thought, of purpoſe to go to his love) but it happened that by the way he was murthered and buryed, and the Dog would not depart from the grave of his Maſter: at the laſt, he being miſſed by his father and brethren, one of them went alſo to ſeek him, and ſee what was become of him, and ſo ſeeking, found the Dog lying upon his grave, who howled pitifully when he ſaw his Maſters brother: the young man cauſed the ground to be opened, and ſo found the wounded corps of his brother, which he brought away, and cauſed to be buryed till the murtherer could be deſcribed: afterward in proceſs of time, the Dog in the preſence of the dead mans brethren eſpied the murtherer, and preſently made force upon him very eagerly; which the brethren ſuſpecting, apprehended him, and brought him before the Governours of the City, who examining him with all the policies they could invent, what ſhould be the occaſion, why the Dog ſhould ſo eagerly fly upon him at all times, whenſoever he was brought into his preſence, could not get any confeſſion of the fact from him: then the Magiſtrate adjudged, that the young Man and the Dog ſhould combate together.

A combate.

The Dog was covered with a dry ſod skin in ſtead of armour, and the murtherer with a ſpear, and on his body a little thin linnen cloath, both came forth to fight, and ſo the man preſently made force at the Dog, who leaping up to the face of the murtherer, took him faſt by the throat, and overthrew him, whereat the wretch amazed, cryed out, ſaying, take pity on me you reverend Fathers, and pull off the Dog from my throat, and I will confeſs all; the which they performed, and he likewiſe declared the cauſe and manner of the whole murther, for which thing he was deſervedly put to death. And thus far of the leſſer ſociable Dogs, now followeth the ſecond kinde of the greater.

Blondus.
The greater ſociable Dogs or defenders.

The greater ſociable Dogs of defence are ſuch as ſouldiers uſe in wars, or elſe are accuſtomed to keep houſes or cattel. This kinde ought to be horrible, fierce, ſtrange and unacquainted with all, except his Maſter, ſo that he be always at daggers drawing, and ready to fight with all which ſhall but lay their hands upon him, for which cauſe he ought to be inſtructed from his littering or infancy by art or continual diſcipline, to ſupply in him the defects of nature: let him be often provoked to wrath by boyes, and afterward as he groweth, let ſome ſtranger ſet upon him with weapon, as ſtaffe or ſword, with whom let him combate till he be wearied, and then let him tear ſome peece of the provokers garment, that ſo he may depart with a conceit of victory; after the fight tye him up faſt, and ſuffer him not to ſtraggle looſe abroad, but feed him thus tyed up, ſo ſhall he in ſhort time prove a ſtrong defender, and eager combatant againſt all men and beaſts which come to deal with him. Of this ſort they nouriſh many in *Spain*, and in other places.

Such an one was the Dog of *Pheræus* the Tyrant of *Theſſaly*, being a very great and fierce Beaſt, and hurtful to all, except them who fed him daily. He uſed to ſet this Dog at his chamber dore to watch and guard him when he ſlept, that who ſo ere was afraid of the Dog, might not approach near without exquiſite torments. *Augeas* gave one of theſe to the Poet *Eupolis*, who taught him by many ſignes and geſtures for the love of his meat, to obſerve his ſervant *Ephialtes*, if at any time he ſtole mony from him. And at the laſt, the wily Dog obſerved the ſervant ſo narrowly, that he found him robbing his Maſters coffers: wherefore he inſtantly fell upon him and tore him in pieces. The which Dog afterward died for ſorrow of his Maſters death; whereupon *Ælianus* ſaith, that the place of his death in *Ægina* was called the place of mourning, to the day of his writing.

Blondus.
Of defending Dogs.

Nicomedes King of *Bythinia*, had one of theſe *Moloſſian* great Dogs, which he nouriſhed very tenderly, and made it very familiar with himſelf: it fell out on a time, that this King being in dalliance with his wife *Ditizele*, in the preſence of the Dog, and ſhe again hanging about the Kings neck, kiſſing and provoking him to love with amorous geſtures, the Dog thinking ſhe had been offering ſome violence to his maſter the King, preſently flew upon her, and with his teeth pulled her right ſhoulder from her body, and ſo left the amorous Queen to dye in the arms of her loving Husband: which thing cauſed the King to baniſh the Dog for ever out of his ſight, for ſorrow whereof he ſoon after dyed; but the Queen was moſt nobly buryed at *Nicomedia* in a golden Sepulcher: the which was opened in the raign of the Emperour *Michael*, ſon of *Theophilus*, and there the womans body was found whole and not putrefied, being wrapped in a golden veſture, which taken off, and tryed in a furnace, yeelded above an hundred and thirteen pounds of pure gold.

Tzetzes.
Arrianus.
A cruel murther of a Queen by a Dog.

When a Dragon was ſetting upon *Orpheus*, as he was occupied in hawking, by his Dogs his life was ſaved, and the Dragon devoured. And when *Cælius* one of the Senators of *Placentia* being ſick, was ſet upon by certain lewd fellows, he received no wound till his Dog was ſlain.

There was never any thing more ſtrange in the nature of Dogs, then that which happened at *Rhodes* beſieged by the *Turk*, for the Dogs did there diſcern betwixt Chriſtians and *Turks*; for towards the *Turks* they were moſt eager, furious, aud unappeaſeable, but towards Chriſtians, although unknown, moſt eaſie, peaceable and placidious, which thing cauſed a certain Poet to write thus:

A moſt memorable ſtory of the Dogs of *Rhodes.*

His auxere fidem quos noſtro fulva ſub ære
Arva & Carpathii defendit littora ponti.
Pectora thoracum tunica ſacrumque profano
Miratur, nutritque Rhodos, cuſtodibus illis
It noctes animoſa Phalanx innexa trilici
Seligit, & blande exceptum deducit ad Urbem.

There were two hundred of theſe Dogs which brought the King of *Garamants* from baniſhment, reſcuing him from all that reſiſted. The *Colophonian* and *Caſtabalenſian*, or *Caſpian* Dogs fought in all their battels: ſo likewiſe the *Cimbrian*, *Hircanian*, and *Magneſian* Dogs: theſe alſo the *Spaniards* uſed in *India*, to hunt out the naked people, falling upon them as fiercely as ever they would upon Bores, or other wilde Beaſts, being pointed unto by their leaders finger. And for this cauſe was it, that *Vaſchus* the *Spaniard* cauſed *Paera* an *Indian* Lord, and three other his wicked companions to be caſt unto Dogs for their unnatural luſt: but the Inhabitants of *Caramair* and *Carib*, do drive aſtay the Dogs, for through their admirable activity in caſting darts, they pierce the Dogs ere ever they come neer them with poyſoned arrows. And thus much for the great warlike defenſive Dogs.

Ælianus.
Textor.
Pliny.
Pet. Martyr.
Deſerved puniſhment of unnatural copulation.

In the next place followeth the Shepheards Dog, called by *Virgil*, *Pecuarius Canis*: and this cannot properly be tearmed a dumb keeper; for there is no creature that will more ſtir, bark, and move noiſe, then one of theſe againſt thief or wilde beaſt. They are alſo uſed by Heardſ-men, Swine-heards, and Goat-Heards, to drive away all annoyances from their Cattel, and alſo to guide & govern them, in executing their maſters pleaſure upon ſigns given them, to which of the ſtragling Beaſts they ought to make force. Neither is it requiſite that this Dog be ſo large or nimble as is the Grey-hound, which is appointed for Deer and Hares.

The Shepheards Dog.

But yet that he be ſtrong, quick, ready, and underſtanding both for brauling and fighting, ſo as he may fear away and alſo follow (if need be) the ravening Wolf, and take away the prey out of his mouth; wherefore a ſquare proportion of body is requiſite in theſe Beaſts, and a tolerable lightneſs of foot, ſuch as is the Village Dog, uſed only to keep houſes, and hereof alſo they are the beſt, who have the greateſt or loudeſt barking voyces, and are not apt to leap upon every ſtranger or beaſt they ſee, but reſerve their ſtrength till the juſt time of imployment.

Columella.

They approve alſo in this kinde above all other, the white colour; becauſe in the night time they are the more eaſily diſcerned from the Wolf, or other noiſome beaſt; for many times it falleth out, that the Shepheard in the twy-light, ſtriketh his Dog inſtead of the Wolf: theſe ought to be well faced, black or dusky eyes, and correſpondent noſtrils of the ſame colour with their eyes, black ruddy lips, a crooked camoyſe noſe, a flat chap with two great broches, or long ſtraight ſharp teeth growing out thereof, covered with their lips, a great head, great ears, a broad breſt, a thick neck; broad and ſolid ſhoulders, ſtraight legs, yet rather bending inward then ſtanding outward; great and thick feet, hard crooked nails, a thick tail which groweth leſſer to the end thereof, then at the

Blondus.
Fronto.

Strabo.

the firſt joint next the body, and the body all rugged with hair, for that maketh the Dog more terrible; and then alſo it is requiſite that he be provided of the beſt breed, neither buy him of a Hunter (for ſuch an one will be gone at the ſight of a Deer or Hare) nor yet of a Butcher, for it will be ſluggiſh; therefore take him young, and bring him up continually to attend Sheep, for ſo will he be moſt ready that is trained up among Shepherds.

Varro.
Fronto.
The love of Dogs to the Cattel they attend.

They uſe alſo to cover their throat and neck with large broad collars, pricked through with nails, for elſe if the wilde beaſt bite them in thoſe places, the Dog is eaſily killed: but being bitten at any other place he quickly avoideth the wound. The love of ſuch to the Cattel they keep is very great, eſpecially to Sheep; for when *Publius Aufidius Pontianus*, bought certain flocks of Sheep in the fartheſt part of *Umbria*, and brought Shepherds with him to drive them home; with whom the dogs went along unto *Heraclea*, and the *Metapontine* coaſts, where the drovers left the Cattel; the Dogs for love of the Sheep yet continued and attended them, without regard of any man, and forraged in the fields for Rats and Mice to eat, untill at length they grew weary and lean, and ſo returned back again unto *Umbria* alone, without the conduct of men, to their firſt Maſters, being many daies journey from them.

A pretty fable of the Sheep and the Dog.

It is good to keep many of theſe together, at the leaſt two for every flock, that ſo when one of them is hurt or ſick, the herd be not deſtitute; and it is alſo good to have theſe male and female, yet ſome uſe to geld theſe, thinking that for this cauſe they will the more vigilantly attend the flock: howbeit I cannot aſſent hereunto, becauſe they are too gentle and leſſe eager when they want their ſtones. They are to be taken from their Dam at two moneths old, and not before: and it is not good to give them hot meat, for that wil encreaſe in them madneſs, neither muſt they taſte any of the dead carkaſſes of the Cattel, leſt that cauſe them to fall upon the living; for when once they have taken a ſmatch of their bloud or fleſh, you ſhall ſeldom reclaime them from that devouring appetite. The underſtanding of theſe Shepherds Dogs is very great, (eſpecially in *England*) for the Shepherds will there leave their Dogs alone with the flocks, and they are taught by cuſtom, to keep the Sheep within the compaſs of their paſture, and diſcern betwixt graſſe and Corn, for when they ſee the Sheep fall upon the Corn, they run and drive them away from that forbidden fruit of their own accord; and they likewiſe keep very ſafely their Maſters garments and victuals from all annoyance untill their return. There is in *Xenophon* a complaint of the Sheep to the Shepherds concerning theſe Dogs: We marvel (ſaid the Sheep) at thee, that ſeeing we yeeld thee milk, Lambs, and Cheeſe, whereupon thou feedeſt; nevertheleſs thou giveſt unto us nothing but that which groweth out of the earth, which we gather by our own induſtry; and whereas the Dog doth none of all theſe, him thou feedeſt with thine own hand, and bread from thine own trencher. The Dog hearing this complaint of the Sheep, replyed, That his reward at the Shepherds hand was juſt, and no more then he deſerved, for (ſaid he) I look unto you, and watch you from the ravening Wolf, and pilfering Theef, ſo as if once I forſake you, then it will not be ſafe for you to walke in your Paſtures, for perill of death: whereunto the Sheep yeelded, and not replyed to the reaſonable anſwer of ſo unreaſonable a beaſt; and this complaint you muſt remember was uttered when Sheep could ſpeak, as well as men, or elſe it noteth the fooliſh murmuring of ſome vulgar perſons, againſt the chief Miniſters of ſtate, that are liberally rewarded by the Princes own hands, for their watchful cuſtody of the Common-wealth. And thus much for the Shepherds Dog.

Of the *VILLAGE-DOG*, or *HOVSE-KEEPER*.

The colour of this Dog.

Of Mariners Dogs on ſhip-board.

THis Village Dog ought to be fatter and bigger then the Shepherds Dog, of an elegant, ſquare and ſtrong body, being black coloured, and great mouthed, or barking bigly, that ſo he may the more terrifie the Theef, both by day and night, for in the night the beaſt may ſeize upon the robber before he diſcern his black skin, and therefore a ſpotted, branded, party coloured Dog is not approved. His head ought to be the greateſt part of his body, having great ears hanging down, and black eyes in his head, a broad breaſt, thick neck, large ſhoulders, ſtrong legs, a rough hair, ſhort tail, and great nails: his diſpoſition muſt not be too fierce, nor yet too familiar, for ſo he will faun upon the Theef as well as his Maſters friend. Yet is it good that ſometime he riſe againſt the houſehold ſervants, and alway againſt ſtrangers, and ſuch they muſt be as can wind a ſtranger afar off, and deſcry him to his Maſter by barking as by a watch-word, and ſetting upon him, when he approcheth neer if he be provoked. *Blondus* commendeth in this kinde, ſuch as ſleep with one eye open and the other ſhut, ſo as any ſmall noiſe or ſtir wake and raiſe him. It is not good to keep many of theſe curſt Dogs together, and them few which be kept muſt be tyed up in the day time, that ſo they may be more vigilant in the night when they are let looſe. There are of this kind which Mariners take with them to Sea, to preſerve their goods on Ship-board, they chuſe them of the greateſt bodies and lowdeſt voice, like the *Croatian* Dog, reſembling in hair and bigneſs, and ſuch as are very watchful, according to the ſaying of the Poet:

Exagitant & lar, & turba Diania fures,
Pervigilantque lares, pervigilantque Canes.

And ſuch alſo they nouriſh in Towers and Temples; in Towers, that ſo they may deſcry the approaching enemy when the Souldiers are aſleep; for which cauſe, Dogs ſeen in ſleep, ſignifie the careful and watchful wiſe, ſervants, or Souldiers, which foreſee dangers and preſerve publick and private good.

Vegetius.

Artemidorus.

There was in *Italy* a Temple of *Pallas*, wherein were reſerved the axes, inſtruments, and armour of *Diomedes* and his Colleagues, the which Temple was kept by Dogs whoſe nature was (as the Author ſaith) that when *Grecians* came to that Temple, they would faun upon them as if they knew them; but if any other Countreymen came, they ſhewed themſelves wilde, fierce, and angry againſt them. The like thing is reported of a Temple of *Vulcan* in *Ætna*, wherein was preſerved a perpetuall and unquenchable fire, for the watching whereof, were Dogs deſigned; who would faun and gently flatter upon all thoſe which came chaſtly and religiouſly to worſhip there, leading them into the Temple like the familiars of their God; but upon wicked and evill diſpoſed leud perſons, they barked and raged, if once they endevoured ſo much as to enter either the Wood or Temple; but the true cauſe hereof was, the impoſture of ſome impure and deceitful, unclean, diabolical ſpirits. And by the like inſtinct, *Scipio Africanus* was wont to enter into the Capitol, and command the Chappel of *Jupiter* to be opened to him, at whom no one of the Keepers Dogs would ever ſtir, which cauſed the Men keepers of the Temple much to marvel, whereas they would rage fiercely againſt all other: whereupon *Stroza* made theſe Verſes, falſly imputing this demonical illuſion to divine revelation.

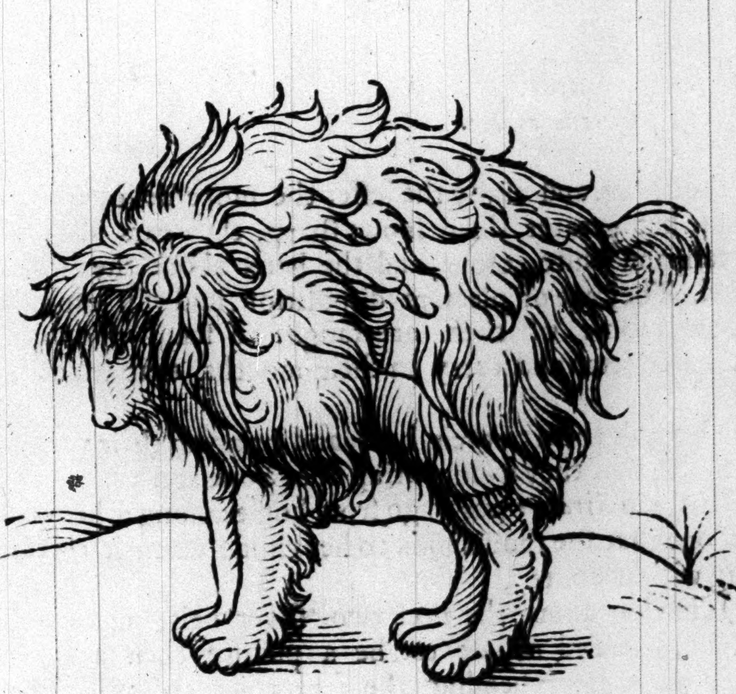
Ariſtotle.
Gyraldus.
Dogs keepers of Temples.
Dion Chryſo.
Gyraldus.
Cælius.

Quid tacitos linquam quos veri haud neſcia Crete
Nec ſemper mendax, ait aurea templa tuentes,
Parcereque haud ulli ſolitos, (mirabile dictu)
Docta Tyanæi Aratos ſenioris ad ora
Non magico cantu, ſed quod divinitus illis
Inſita vis animo, virtutis gnara latentis.

The like ſtrange thing is reported of a Temple or Church in *Cracovia*, dedicated to the *Virgin Mary*, wherein every night are an aſſembly of Dogs, which unto this day (ſaith the Author) meet voluntarily at an appointed hour, for the cuſtody of the Temple, and thoſe ornaments which are preſerved therein againſt Theeves and Robbers: and if it fortune any of the Dogs be negligent and ſlack at the hour aforeſaid, then will he bark about the Church untill he be let in, but his fellowes take puniſhment of him, and fall on him, biting and rending his skin, yea ſometime killing him; and theſe Dogs have a ſet diet or allowance of dinner, from the Canons and Preachers of the Church, which they duely obſerve without breach of order; for to day two of them will goe to one Canons houſe, and two to anothers, and ſo likewiſe all the reſidue in turnes ſucceſſively viſit the ſeveral houſes within the Cloiſter yard, never going twice together to one houſe, nor preventing the refection of their fellowes; and the ſtory is reported by *Antonius Schnebergerus* for certain truth, upon his own knowledge.

Schneberg.

Of the *MIMICK*, or *GETULIAN-DOG*, and the little *MELITÆAN-DOGS* of Gentlewomen.



THere is alſo in *England* two other ſorts of Dogs, the figure of the firſt is here expreſſed, being apt to imitate all things it ſeeth, for which cauſe ſome have thought that it was conceived by an Ape; for in wit and diſpoſition it reſembleth an Ape, but in face ſharpe and black like a Hedge-hog, having a ſhort recurved body, very long legs, ſhaggie hair, and a ſhort tail: this is called of ſome (*Canis Lucernarius*) theſe being brought up with Apes in their youth, learn very admirable and ſtrange feats, whereof there were great plenty in *Egypt* in the time of King *Ptolemy*, which were taught to leap and play, and dance, at the

John Cay.

The firſt generation of Mimick Dogs.

The feats of Dogs.

the hearing of muſick, and in many poor mens houſes they ſerved in ſtead of ſervants for divers uſes.

Albertus.

Theſe are alſo uſed by Players and Puppet-Mimicks to work ſtrange tricks, for the ſight whereof they get much money: ſuch an one was the Mimicks dog, of which *Plutarch* writeth that he ſaw in a publick ſpectacle at *Rome* before the Emperor *Veſpaſian*. The Dog was taught to act a play, wherein were contained many perſons parts, I mean the affections of many other Dogs: at laſt there was given him a piece of bread, wherein, as was ſaid, was poiſon, having virtue to procure a dead ſleep, which he received and ſwallowed: and preſently after the eating thereof he began to reel and ſtagger to and fro like a drunken man, and fell down to the ground, as if he had been dead, and ſo lay a good ſpace not ſtirring foot nor limb, being drawn up and down by divers perſons, according as the geſture of the Play he acted did require, but when he perceived by the time and other ſignes that it was requiſite to ariſe, he firſt opened his eyes, and lift up his head a little, then ſtretched forth himſelf like as one doth when he riſeth from ſleep; at the laſt up he getteth and runneth to him to whom that part belonged, not without the joy and good content of *Cæſar* and all other the beholders.

To this may be added another ſtory of a certain *Italian* about the year 1403. called *Andrew*, who had a red Dog with him of ſtrange feats, and yet he was blind. For ſtanding in the Market place, compaſſed about with a circle of many people, there were brought by the ſtanders by many Rings, Jewels, Bracelets and pieces of gold and ſilver, and there within the circle were covered with earth, then the Dog was bid to ſeek them out, who with his noſe and feet did preſently find and diſcover them; then was he alſo commanded to give to every one his own Ring, Jewel, Bracelet, or money, which the blind Dog did perform directly without ſtay or doubt. Afterward the ſtanders by, gave unto him divers pieces of coin, ſtamped with the images of ſundry Princes, and then one called for a piece of *Engliſh* money, and the Dog delivered him a piece, another for the Emperors coin, and the Dog delivered him a piece thereof; and ſo conſequently every Princes coin by name, till all was reſtored: and this ſtory is recorded by *Abbus Urſpergenſis*, whereupon the common people ſaid, the Dog was a Devill or elſe poſſeſſed with ſome Pythonical ſpirit: and ſo much for this Dog.

Strabo.
Of the *Melitæan* Dogs.

There is a Town in *Pachynus*, a Promontory of *Sicily* (called *Melita*) from whence are tranſported many fine little Dogs called, *Melitæi Canes*, they were accounted the Jewels of Women, but now the ſaid Town is poſſeſſed by Fiſher-men, and there is no ſuch reckoning made of thoſe tender little Dogs, for theſe are not bigger then common Ferrets, or Weaſils, yet are they not ſmall in underſtanding, nor mutable in their love to men: for which cauſe they are alſo nouriſhed tenderly for pleaſure; whereupon came the proverb, *Militæa Catella*, for one nouriſhed for pleaſure, and *Canis digna throno*, becauſe Princes hold them in their hands ſitting upon their eſtate.

Ælianus.

Theodorus the tumbler and dancer had one of theſe, which loved him ſo well, that at his death he leaped into the fire after his body. Now a dayes, they have found another breed of little Dogs in all Nations, beſide the *Melitæan* Dogs, either made ſo by art, as incloſing their bodies in the earth when they are Whelps, ſo as they cannot grow great, by reaſon of the place, or elſe, leſſening and impayring their growth, by ſome kind of meat or nouriſhment. Theſe are called in *Germany*, *Bracken Schoſſhundle* and *Gutſchenhundle*; the *Italians*, *Bottolo*; other Nations have no common name for this kind that I know. *Martial* made this Diſtichon of a little *French* Dog; for about *Lions* in *France* there are ſtore of this kinde, and are ſold very dear; ſometimes for ten Crowns, and ſometimes for more.

Blondus.
The art of making of little Dogs.

Delicias parvæ ſi vis audire catellæ,
Narranti brevis eſt pagina tota mihi.

They are not above a foot, or half a foot long, and alway the leſſer the more delicate and precious. Their head like the head of a Mouſe but greater, their ſnowt ſharp, their ears like the ears of a Cony, ſhort legs, little feet, long tail, and white colour, and the hairs about the ſhoulders longer then ordinary, is moſt commended. They are of pleaſant diſpoſition, and will leap and bite without pinching, and bark prettily, and ſome of them are taught to ſtand upright holding up their fore legs like hands; other to fetch and carry in their mouths, that which is caſt unto them.

There be ſome wanton women which admit them to their beds, and bring up their young ones in their own boſomes, for they are ſo tender, that they ſeldom bring above one at a time, but they loſe their life. It was reported that when *Grego* in *Syracuſe* was to go from home among other Goſſips, ſhe gave her maid charge of two things, one that ſhe ſhould look to her childe when it cryed, the other that ſhe ſhould keep the little Dog within doors.

Publius had a little Dog (called *Iſſa*) having about the neck two ſilver bels, upon a ſilken Collar, which for the neatneſs thereof, ſeemed rather to be a picture then a creature; whereof *Martial* made this elegant Epigram, comprehending the rare voice and other geſtures in it.

Iſſa eſt purior oſculo columbæ,
Iſſa eſt blandior omnibus puellis,
Iſſa eſt carior Indicis lapillis,
Iſſa eſt deliciæ catella Publii.
Hanc tu, ſi queritur, loqui putabis,
Sentit triſtitiamque gaudiumque.
Collo nexa cubat capitque ſomnos,
Ut ſuſpiria nulla ſentiantur,
Et deſiderio coacta ventris
Gutta pallia, non fefellit ulla.
Sed blando pede ſuſcitat toroque
Deponi monet, & rogat levari.
Caſtæ tantus ineſt pudor catellæ.
Hanc ne lux rapiat ſuprema totam,
Pictam Publius exprimit tabella,
In qua tam ſimilem vibebis Iſſam,
Ut ſit tam ſimilis ſibi nec ipſa,
Iſſam denique pone cum tabella,
Aut utramque putabis eſſe veram,
Aut utramque putabis eſſe pictam.

Marcellus Empiticus reciteth a certain charm, made of the rinde of a wilde Figtree, held to the Spleen or Liver of a little Dog, and afterward hanged up in the ſmoak to dry, and pray that as the rind or bark dryeth, ſo the Liver or Spleen of the Dog may never grow; and thereupon the Dog (ſaith that fooliſh Emperick) ſhall never grow greater, then it was at the time that the bark was hanged up to drying. To let this trifle go, I will end the diſcourſe of theſe little Dogs with one ſtory of their love and underſtanding.

Ælianus. A lamentable ſtory of the diſcovery of an Adulterer by a little Dog.

There was a certain noble Woman in *Sicily*, which underſtanding her husband was gone a long journey from home, ſent to a lover (I ſhould ſay an Adulterer) ſhe had, who came, and by bribery and money given to her ſervants, ſhe admitted him to her bed, but yet privately, more for fear of puniſhment, then care of modeſty; and yet for all her craft, ſhe miſtruſted not her little Dog, who did ſee every day where ſhe locked up this Adulterer: at laſt, her husband came home, before her lover was avoided, and in the night the little Dog ſeeing his true Maſter returned home, ran barking to the door and leaped up thereupon (within which the Whoremonger was hidden) and this he did oftentimes together, fauning and ſcraping his Lord and Maſter alſo; in ſo much as he miſtruſted (and that juſtly) ſome ſtrange event: at laſt, he brake open the door, and found the Adulterer ready armed with his ſword, wherewithal he ſlew the good man of the houſe unawares; and ſo enjoyed the Adulterate woman for his wife: for Murther followeth if it go not before Adultery. This ſtory is related by *Ælianus* to ſet forth a virtue of theſe little Dogs, how they obſerve the actions of them that nouriſh them, and alſo ſome deſcretion betwixt good and evill.

Ælianus. *Solinus.* *Pollux.*

The Dogs of *Egypt* are moſt fearful of all other, and their cuſtome is to run and drink, or drink of the River *Nilus* running, for fear of the Crocodiles: whereupon came the Proverb, of a man that did any thing ſlightly or haſtily, *Ut Canis e Nilo bibit.* *Alcibiades* had a Dog which he would not ſell under 28 thouſand Seſterces, that is, ſeven hundred *French* Crowns; it was a goodly and beautiful Dog, yet he cut off his tail, whereof he gave no other reaſon, being demanded why he ſo blemiſhed his beaſt, but only that by that fact he might give occaſion to the *Athenians* to talke of him.

Ælianus.

The Dogs of *Caramania* can never be tamed, for their men alſo are wilde and live without all Law and Civility: and thus much of Dogs in ſpecial. In the next place I thought good to inſert into this ſtory the Treatiſe of *Engliſh* Dogs, firſt of all written in *Latin* by that famous Doctor in Phyſick *John Cay*, and ſince tranſlated by *A. F.* and directed to that noble *Geſner*, which is this that followeth, that ſo the Reader may chuſe whether of both to affect beſt.

The Preamble or Entrance into the Treatiſe following.

I Wrote unto you (well beloved friend *Geſner*) not many years paſt, a manifold hiſtory, containing the divers forms and figures of Beaſts, Birds, and fiſhes, the ſundry ſhapes of Plants, and the faſhions of Herbs, *&c.*

I wrote moreover unto you ſeverally, a certain abridgement of Dogs, which in your diſcourſe upon the formes of Beaſts in the ſecond order of milde and tamable beaſts, where you make mention of Scottiſh Dogs, and in the winding up of your Letter written and directed to Doctor *Turner*, comprehending a Catalogue or rehearſal of your Books not yet extant, you promiſed to ſet forth in print, and openly to publiſh in the face of the world among ſuch your works as are not yet come abroad to light and ſight. But becauſe certain circumſtances were wanting in my breviary of *Engliſh* Dogs (as ſeemed unto me) I ſtayed the publication of the ſame, making promiſe to ſend another abroad, which might be committed to the hands, the eyes, the ears, the minds, and the judgements of the Readers.

Wherefore that I might perform that preciſely, which I promiſed ſolemnly, accompliſh my determination, and ſatisfie your expectation: which are a man deſirous and capable of all kind of knowledge, and very earneſt to be acquainted with all experiments: I will expreſſe and declare in due order, the grand and general kind of *Engliſh* Dogs, the difference of them, the uſe, the properties, and the divers natures of the ſame, making a tripartite diviſion in this ſort and manner. All *Engliſh* Dogs be either of a gentle kinde ſerving the game, a homely kinde apt for ſundry neceſſary uſes, or a curriſh kind, meet for many toies.

Of theſe three ſorts or kinds ſo mean I to entreat, that the firſt in the firſt place, the laſt in the laſt room, and the middle ſort in the middle ſeat be handled. I call them univerſally all by the name of *Engliſh* Dogs, as well becauſe *England* only, as it hath in it *Engliſh* Dogs, ſo it is not with the *Scotiſh*, as alſo for that we are inclined and delighted with the noble game of hunting, for we *Engliſhmen* are addicted and given to that exerciſe and painful paſtime of pleaſure, as well for the plenty of fleſh which our Parks and Forreſts do foſter, as alſo for the opportunity and convenient leiſure which we obtain; both which the *Scots* want. Wherefore ſeeing that the whole eſtate of kindly hunting conſiſteth principally in theſe two points, in chaſing the beaſt that is in hunting, or in taking the bird that is in fowling; It is neceſſary and requiſite to underſtand that there are two ſorts of Dogs by whoſe means the feats within ſpecified are wrought, and theſe practiſes of activity cunningly and curiouſly compaſſed, by two kindes of Dogs, one which rouzeth the beaſt and continueth the chaſe, another which ſpringeth the bird, and bewrayeth the flight by purſute. Both which kinds are termed of the *Latins* by one common name, that is, *Canes Venatici*, hunting Dogs. But becauſe we *Engliſhmen* make a difference between hunting and fowling, for they are called by theſe ſeveral words, *Venatio*, *&* *Aucupium*, ſo they term the Dogs whom they uſe in theſe ſundry games by dives names, as thoſe which ſerve for the beaſt, are called *Venatici*, the other which are uſed for the fowl are called *Aucupatorii*.

The firſt kinde called *Venatici* I divide into five ſorts, the firſt in perfect ſmelling, the ſecond in quick ſpying, the third in ſwiftneſs and quickneſs, the fourth in ſmelling and nimbleneſs, the fifth in ſubtilty and deceitfulneſs, herein theſe five ſorts excell.

Of the *DOG* called a *HARIER*; in *Latin*, *Leverarius*.

THat kinde of Dog whom nature hath endued with the virtue of ſmelling, whoſe property it is to uſe a luſtineſs, a readineſs, and a couragiouſneſs in hunting, and draweth into his noſtrils the air or ſent of the beaſt purſued and followed, we call by this word *Sagax*, the *Grecians* by this word *Ichneuten* of tracing or chaſing by the foot, or *Rinelaten*, of the noſtrils, which be the inſtruments of ſmelling. We may know theſe kinde of Dogs by their long, large and bagging lips, by their hanging ears, reaching down both ſides of their chaps, and by the indifferent and meaſurable proportion of their making. This ſort of Dogs we call *Leverarios*, *Hariers*, that I may compriſe the whole number of them in certain ſpecialities, and apply to them their proper and peculiar names, for ſo much as they cannot all be reduced and brought under one ſort, conſidering both the ſundry uſes of them, and the difference of their ſervice whereto they be appointed. Some for the Hare, the Fox, the Wolf, the Hart, the Buck, the Badger, the Otter, the Polcat, the Lobſter, the Weaſell, the Cony, *&c.* Some for one thing and ſome for another.

As for the Cony, whom we have laſtly ſet down, we uſe not to hunt, but rather to take it, ſometime with the net, ſometime with a Ferret, and thus every ſeveral ſort is notable and excellent in his natural quality and appointed practiſe. Among theſe ſundry ſorts, there be ſome which are apt to hunt two divers beaſts, as the Fox other whiles, and other whiles the Hare, but they hunt not with ſuch towardneſs and good luck after them, as they do that whereunto nature hath formed and framed them, not only in external compoſition and making, but alſo in inward faculties and conditions, for they ſwarve oftentimes, and do otherwiſe then they ſhould.

Of the *DOG* called a *TERRAR*; in *Latin*, *Terrarius*.

ANother ſort there is which hunteth the Fox, and the Badger, or Gray only, whom we cal *Terrars*, becauſe they (after the manner and cuſtom of Ferrets in ſearching for Conies) creep into the ground, and by that means make afraid, nip, and bite the Fox and the Badger in ſuch ſort, that either they tear them in pieces with their teeth, being in the boſom of the earth, or elſe hale and pull them perforce out of their lurking Angles, darke dungeons, and cloſe caves, or at the leaſt through conceived fear, drive them out of their hollow harbors, in ſo much that they are compelled to prepare ſpeedy flight, and being deſirous of the next (albeit not the ſafeſt) refuge, are otherwiſe taken and intrapped with ſnares and nets laid over holes to the ſame purpoſe. But theſe be the leaſt in that kinde called *Sagaces*.

Of the *DOG* called a *BLOOD-HOUND*; in *Latin*, *Sanguinarius*.

THe greater ſort which ſerve to hunt, having lips of a large ſize, and eares of no ſmall length, do not only chaſe the beaſt whiles it liveth (as the other do of whom mention above is made) but being dead alſo by any manner of caſualty, make recourſe to the place where it lyeth, having in this point an aſſured and infallible guide; namely, the ſent and ſavour of the bloud ſprinkled here and there upon the ground. For whether the beaſt being wounded, doth notwithſtanding enjoy life, and eſcapeth the hands of the huntſman, or whether the ſaid beaſt being ſlain is conveyed cleanly out of the Park (ſo that there be ſome ſignification of bloud ſhed) theſe Dogs with no leſſe facility and eaſineſs, then avidity and greedineſs can diſcloſe and bewray the ſame by ſmelling, applying to their purſuite, agility and nimbleneſs, without tediouſneſs; for which conſideration, of a ſingular ſpecialty they deſerved to be called *Sanguinarii* Blood-hounds. And albeit peradventure it may chance, (as whether it chanceth ſeldom or ſometime I am ignorant) that a piece of fleſh be ſubtilly ſtolne, and cunningly conveyed away with ſuch proviſoes and precaveats, as thereby all appearance of bloud is either prevented, excluded, or concealed, yet theſe kinde of Dogs by certain direction of an inward aſſured notice and privie mark, purſue the deed-dooers, through long lanes, crooked reaches, and weary wayes, without wandering awry out of the limits of the land whereon theſe deſperate purloiners prepared their ſpeedy paſſage. Yea, the natures of theſe Dogs is ſuch, and ſo effectual is their foreſight, that they can bewray, ſeparate, and pick them out from among an infinite multitude and an innumerable company, creep they never ſo far into the thickeſt throng, they will finde him out notwithſtanding he lie hidden in wilde Woods, in cloſe and overgrowen Groves, and lurk in hollow holes apt to harbour ſuch ungracious gueſts.

Moreover, although they ſhould paſſe over the water, thinking thereby to avoid the purſuite of the Hounds, yet will not theſe Dogs give over their attempt, but preſuming to ſwim through the ſtream, perſevere in their purſuite, and when they be arrived and gotten the further banck, they hunt up and down, to and fro run they, from place to place ſhift they, until they have attained to that plot of ground where they paſſed over. And this is their practiſe, if perdy they cannot at the firſt time ſmelling, finde out the way which the deed-doers took to eſcape. So at length get they that by art, cunning, and diligent endevour, which by fortune and luck they cannot otherwiſe overcome. In ſo much as it ſeemeth worthily and wiſely written by *Ælianus* in his 6. Book and 39. Chapter, *To enthumaticon kai dialecticon*, to be as it were naturally inſtilled into theſe kind of Dogs. For they will not pauſe or breathe forth from their purſuite untill ſuch time as they be apprehended and taken which committed the fact.

The owners of ſuch Hounds uſe to keep them in cloſe and dark kennels in the day, and let them looſe at liberty in the night ſeaſon, to the intent that they might with more courage and boldneſs practiſe to follow the fellon in the evening and ſolitary hours of darkneſs, when ſuch ill diſpoſed varlets are principally purpoſed to play their impudent pranks. Theſe Hounds (upon whom this preſent portion of our treatiſe runneth) when they are to follow ſuch fellowes as we have before rehearſed, uſe not that liberty to range at will, which they have otherwiſe when they are in game, (except upon neceſſary occaſion whereon dependeth an urgent and effectual perſwaſion) when ſuch purloyners make ſpeedy way in flight, but being reſtrained and drawn back from running at random with the leame, the end whereof the owner holding in his hand is led, guided and directed with ſuch ſwiftneſs and ſlowneſs (whether he go on foot, or whether he ride on horſeback) as he himſelf in heart would wiſh for the more eaſie apprehenſion of theſe venturous varlets.

In the borders of *England* and *Scotland*, (the often and accuſtomed ſtealing of Cattel ſo procuring) theſe kind of Dogs are very much uſed, and they are taught and trained up firſt of all to hunt Cattel, as well of the ſmaller as of the greater grouth, and afterwards (that quality relinquiſhed and left) they are learned to purſue ſuch peſtilent perſons as plant their pleaſure in ſuch practiſes of purloining as we have already declared. Of this kind there is none that taketh the Water naturally, except it pleaſe you ſo to ſuppoſe of them which follow the Otter, which ſometimes haunt the land, and ſometime uſeth the water. And yet nevertheleſs all the kinde of them boyling and broyling with greedy deſire of the prey which by ſwimming paſſeth through river and flood, plunge amids the water and paſſe the ſtream with their pawes.

But this property proceedeth from an earneſt deſire wherewith they be inflamed, rather then from any inclination, iſſuing from the ordinance and appointment of nature. And albeit ſome of this ſort in *Engliſh* be called *Brache*, in *Scotiſh*, *Rache*, the cauſe thereof reſteth in the ſhe-ſex, and not in the general kinde. For we *Engliſhmen* call Bitches belonging to the hunting kind of Dogs, by the tearm above mentioned. To be ſhort, it is proper to the nature of Hounds, ſome to keep ſilence in hunting untill ſuch time as there is game offered. Other ſome ſo ſoon as they ſmell out the place where the beaſt lurketh, to bewray it immediately by their importunate barking, notwithſtanding it be far and many furlongs off, cowching cloſe in his cabbin. And theſe Dogs the younger they be, the more wantonly bark they, and the more liberally; yet oftentimes without neceſſity, ſo that in them, by reaſon of their young years and want of practiſe, ſmall certainty is to be repoſed. For continuance of time, and experience in game, miniſtreth to theſe Hounds, not only cunning in running, but alſo (as in the reſt) an aſſured foreſight what is to be done principally, being acquainted with their Maſters watchwords, either in revoking or imboldening them to ſerve the game.

Of the DOG called the GASE-HOUND; in *Latin*, *Agaſæus*.

THis kinde of Dog which purſueth by the eye, prevaileth little, or never a whit, by any benefit of the noſe, that is by ſmelling, but excelleth in perſpicuity and ſharpeneſs of ſight altogether, by the virtue whereof, being ſingular and notable, it hunteth the Fox and the Hare. This Dog will chuſe and ſeparate any beaſt from among a great flock or herd, and ſuch a one will it take by election as is not lanck, lean and hollow, but well ſpred, ſmooth, full, fat, and round, it followes by direction of the eyeſight, which indeed is clear, conſtant, and not uncertain; if a beaſt be wounded and go aſtray, the Dog ſeeketh after it by the ſtedfaſtneſs of the eye, if it chance peradventure to return and be mingled with the reſidue of the flock, this Dog ſpyeth it out by virtue of his eye, leaving the reſt of the Cattell untouched, and after he hath ſet ſure ſight upon it, he ſeparateth it from among the company, and having ſo done, never ceaſeth untill he have wearyed the Beaſt to death.

Our Countreymen call this Dog *Agaſæum*, a Gaſe-hound, becauſe the beams of his ſight are ſo ſtedfaſtly ſetled and unmoveably faſtned. Theſe Dogs are much and uſually occupied in the Northern parts of *England* more then in the Southern parts, and in fieldy lands rather then in buſhie and woody places, horſemen uſe them more then footmen, to the intent that they might provoke their horſes to a ſwift gallop (wherewith they are more delighted then with the prey it ſelf) and that they might accuſtome their Horſe to leap over hedges and ditches, without ſtop or ſtumble, without harme or hazard, without doubt or danger, and to eſcape with ſafegard of life. And to the end that the riders themſelves, when neceſſity ſo conſtrained, and the fear of further miſchief inforced, might ſave themſelves undamnified, and prevent each perillous tempeſt by preparing ſpeedy flight, or elſe by ſwift purſuite made upon their enemies, might both overtake them, encounter with them, and make a ſlaughter of them accordingly. But if it fortune ſo at any time that this Dog take a wrong way, the Maſter making ſome uſual ſigne and familiar token, he returneth forthwith, and taketh the right and ready race, beginning his chaſe afreſh, and with a clear voice, and a ſwift foot followeth the game with as much courage and nimbleneſs as he did at the firſt.

Of the DOG called the GRAY-HOUND; in *Latin*, *Leporarius*.

WE have another kinde of Dog, which for his incredible ſwiftneſs is called *Leporarius*, a Gray-hound, becauſe the principal ſervice of them dependeth and conſiſteth in ſtarting and hunting the Hare, which Dogs likewiſe are indued with no leſſe ſtrength then lightneſs in maintenance of the game, in ſerving the chaſe, in taking the Buck, the Hart, the Doe, the Fox, and other beaſts of ſemblable kinde ordained for the game of hunting. But more or leſſe, each one according to the meaſure and proportion of their deſire, and as might and hability of their bodies will permit and ſuffer.

For it is a ſpare and bare kind of Dog, (of fleſh but not of bone) ſome are of a greater ſort, and ſome of a leſſer, ſome are ſmooth skinned, and ſome are curled, the bigger therefore are appointed to hunt the bigger beaſts, and the ſmaller ſerve to hunt the ſmaller accordingly. The nature of the Dogs I finde to be wonderful by the teſtimony of all Hiſtories. For, as *John Froiſart* the Hiſtoriographer in his 4 *lib.* reporteth, A Gray-hound of King *Richard* the ſecond that wore the Crown, and bare the Scepter of the Realm of *England*, never knowing any man, beſides the Kings perſon, when *Henry* Duke of *Lancaſter* came to the Caſtle of *Flint* to take King *Richard*, the Dog forſaking his former Lord and Maſter came to Duke *Henry*, fauned upon him with ſuch reſemblances of good will and conceived affection, as he favoured King *Richard* before: he followed the Duke, and utterly left the King. So that by theſe manifold circumſtances a man might judge his Dog to have been lightened with the lamp of foreknowledge and underſtanding, touching his old Maſters miſeries to come, and unhappineſs nigh at hand, which King *Richard* himſelf evidently perceived, accounting this deed of his Dog a Prophecy of his overthrow.

Of the DOG called the LEVINER, or LYEMMER; in *Latin*, *Lorarius*.

ANother ſort of Dogs be there, in ſmelling ſingular, and in ſwiftneſs incomparable. This is (as it were) a middle kinde betwixt the Harier and the Gray-hound, as well for his kind, as for the frame of his body. And it is called in *Latin*, *Levinarius*, *a Levitate*, of lightneſs, and therefore may well be called a Light-hound; it is alſo called by this word *Lorarius*, *a Loro*, wherewith it is led. This Dog for the excellency of his conditions, namely ſmelling and ſwift running, doth follow the game with more eagerneſs, and taketh the prey with a jolly quickneſs.

Of

Of the DOG called a TUMBLER; in *Latin*, *Vertagus*.

THis ſort of Dogs, which compaſſeth all by crafts, fraudes, and ſubtilties and deceits, we *Engliſhmen* call Tumblers, becauſe in hunting they turn and tumble, winding their bodies about in circle wiſe, and then fiercely and violently venturing upon the beaſt, doth ſuddenly gripe it, at the very entrance and mouth of their receptacles, or cloſets before they can recover means, to ſave and ſuccour themſelves. This Dog uſeth another craft and ſubtilty, namely, when he runneth into a Warren, or fetcheth a courſe about a Conyburrough, he hunts not after them, he frayes them not by barking, he makes no countenance or ſhadow of hatred againſt them, but diſſembling friendſhip, and pretending favour, paſſeth by with ſilence and quietneſs, marking and noting their holes diligently, wherein (I warrant you) he will not be overſhot nor deceived. When he cometh to the place where Conies be of a certainty, he cowcheth down cloſe with his belly to the ground, provided alwayes by his skill and policy, that the winde be never with him but againſt him in ſuch an enterpriſe; and that the Conies ſpy him not where he lurketh. By which means he obtaineth the ſcent and ſavour of the Conies, carryed towards him with the winde and the air, either going to their holes or coming out, either paſſing this way, or running that way, and ſo provideth by his circumſpection, that the ſilly ſimple Cony is debarred quite from his hole (which is the haven of their hope, and the harbour of their health) and fraudulently circumvented and taken, before they can get the advantage of their hole. Thus having caught his prey, he carryeth it ſpeedily to his Maſter, waiting his Dogs return in ſome convenient lurking corner.

Theſe Dogs are ſomewhat leſſer then the Hounds, and they be lancker and leaner, beſide that they be ſomewhat prick eared. A man that ſhall marke the form and faſhion of their bodies, may well call them mungrel Gray-hounds if they were ſomewhat bigger. But notwithſtanding they countervail not the Grey-hound in greatneſs, yet will he take in one dayes ſpace as many Conies as ſhall ariſe to as big a burthen, and as heavie a load as a horſe can carry, for deceit and guile is the inſtrument whereby he maketh this ſpoil, which pernicious properties ſupply the places of more commendable qualities.

Of the DOG called the THEEVISH DOG, in *Latin*, *Canis furax*.

THe like to that whom we have rehearſed, is the Theeviſh Dog, which at the mandate and bidding of his Maſter fleereth and leereth abroad in the night, hunting Conies by the air, which is ſevened with the ſavour and conveied to the ſenſe of ſmelling by the means of the winde blowing towards him. During all which ſpace of his hunting, he will not bark, leſt he ſhould be prejudicial to his own advantage. And thus watcheth and ſnatcheth up in courſe as many Conies as his Maſter will ſuffer him, and beareth them to his Maſters ſtanding. The Farmers of the Countrey and uplandiſh dwellers, call this kind of Dog a Night Cur, becauſe he hunteth in the dark. But let thus much ſeem ſufficient for Dogs which ſerve the game and diſport of hunting.

Of *Gentle* DOGS ſerving the Hawk, and firſt of the SPANIEL, called in *Latin*, *Hiſpaniolus*.

SUch Dogs as ſerve for fowling, I think convenient and requiſite to place in the ſecond Section of this treatiſe. Theſe are alſo to be reckoned and accounted in the number of the Dogs which come of a gentle kind: and of thoſe which ſerve for fowling, there be two ſorts, the firſt findeth game on the land, the other findeth game on the water. Such as delight on the land, play their parts, either by ſwiftneſs of foot, or by often queſting, to ſearch out and to ſpring the bird for further hope of advantage, or elſe by ſome ſecret ſign and privy token bewray the place where they fall. The firſt kind of ſuch ſerve the Hawk, the ſecond the net or train. The firſt kind have no peculiar names aſſigned unto them, ſave only that they be denominated after the bird which by natural appointment he is alotted to take; for the which conſideration, ſome be called Dogs for the Falcon, the Pheſant, the Partridge, and ſuch like. The common ſort of people call them by one general word, namely Spaniels; as though theſe kind of Dogs came originally and firſt of all out of *Spain*. The moſt part of their skins are white, and if they be marked with any ſpots they are commonly red, and ſomewhat great therewithall, the hairs not growing in ſuch thickneſs but that the mixture of them may eaſily be perceived. Otherſome of them be reddiſh and blackiſh, but of that ſort there be but a very few. There is alſo at this day among us a new kind of Dog brought out of *France* (for we *Engliſhmen* are marvellous greedy gaping gluttons after novelties, and covetous cormorants of things that be ſeldom, rare, ſtrange, and hard to get) and they be ſpeckled all over with white and black, which mingled colours incline to a marble blew, which beautifieth their skins, and affordeth a ſeemly ſhow of comelineſs. Theſe are called *French Dogs*, as is above declared already.

The DOG called the SETTER; in *Latin*, *Index*.

ANother ſort of Dogs be there, ſerviceable for fowling, making no noiſe either with foot or with tongue, whiles they follow the game Theſe attend diligently upon their Maſter and frame their conditions to ſuch becks, motions, and geſtures, as it ſhall pleaſe him to exhibite and make, either going forward, drawing backward, inclining to the right hand, or yeelding toward the left, (in making mention of fowles, my meaning is of the Patridge and the Quail:) when he hath found the bird, he keepeth ſure and faſt ſilence, he ſtayeth his ſteps and will proceed no further, and with a cloſe, covert, watching eye, layeth his belly to the ground and ſo creepeth forward like a worm. When he approacheth neer to the place where the bird is, he lies him down, and with a mark of his pawes betrayeth the place of the birds laſt abode, whereby it is ſuppoſed that this kind of Dog is called *Index*, Setter, being indeed a name moſt conſonant and agreeable to his quality. The place being known by the means of the Dog, the fowler, immediately openeth and ſpreadeth his net, intending to take them; which being done, the Dog at the cuſtomed beck or uſuall ſign of his Maſter riſeth up by and by, and draweth neerer to the fowle, that by his preſence they might be the authors of their own inſnaring, and be ready intangled in the prepared net, which cunning and artificial indevour in a Dog (being a creature domeſtical or houſhold ſervant, brought up at home with offals of the trencher, and fragments of victuals) is not ſo much to be marvelled at, ſeeing that a Hare (being a wilde and skippiſh beaſt) was ſeen in *England* to the aſtoniſhment of the beholders, in the year of our Lord God 1564. not only dancing in meaſure, but playing with his former feet upon a tabberet, and obſerving juſt number of ſtrokes (as a practitioner in that art) beſides that nipping and pinching a Dog with his teeth and clawes, and cruelly thumping him with the force of his feet. This is no trumpery tale, nor trifle toy (as I imagine) and therefore not unworthy to be reported, for I reckon it a requital of my travell, not to drown in the ſeas of ſilence any ſpecial thing, wherein the providence and effectual working of nature is to be pondered.

Of the DOG called the WATER SPANIEL, or FINDER; in *Latin*, *Aquaticus ſeu Inquiſitor*.

THat kinde of Dog whoſe ſervice is required in fowling upon the water, partly through a natural towardneſs, and partly by diligent teaching, is indued with that property. This ſort is ſomewhat big, and of a meaſurable greatneſs, having long, rough, and curled hair, not obtained by extraordinary trades, but given by natures appointment; yet nevertheleſs (friend *Geſner*) I have deſcribed and ſet him out in this manner, namely powled and notted from the ſhoulders to the hindermoſt legs, and to the end of his tail, which I did for uſe and cuſtoms cauſe, that being as it were made ſomewhat bare and naked, by ſhearing off ſuch ſuperfluity of hair, they might atchieve the more lightneſs, and ſwiftneſs, and be leſſe hindered in ſwimming, ſo troubleſome and needleſs a burden being ſhaken off. This kinde of Dog is properly called *Aquaticus*, a Water Spaniel, becauſe he frequenteth and hath uſual recourſe to the water where all his game lyeth, namely water fowls, which are taken by the help and ſervice of them, in their kind. And principally Ducks and Drakes, whereupon he is likewiſe named a Dog for the Duck, becauſe in that quality he is excellent. With theſe Dogs alſo we fetch out of the water ſuch fowl as be ſtung to death by any venemous Worm; we uſe them alſo to bring us our bolts and arrows out of the water (miſſing our mark) whereat we directed our levell, which otherwiſe we ſhould hardly recover, and oftentimes they reſtore to us our ſhafts which we thought never to ſee, touch, or handle again, after they were loſt: for which circumſtances they are called *Inquiſitores*, ſearchers and finders. Although the Duck otherwhiles notably deceiveth both the Dog and the Maſter, by diving under the water, and alſo by natural ſubtilty, for if any man ſhall approach to the place where they build, breed and ſit, the Hens go out of their neſts, offering themſelves voluntarily to the hands, as it were, of ſuch as draw neer their neſts. And a certain weakneſs of their wings pretended, and infirmity of their feet diſſembled, they go ſlowly and ſo leaſurely, that to a mans thinking it were no maſterie to take them. By which deceitful trick they do as it were entiſe and allure men to follow them, till they be drawn a long diſtance from their neſts, which being compaſſed by their provident cunning, or cunning providence, they cut off all inconveniences which might grow of their return, by uſing many careful and curious caveats, leſt their often hunting bewray the place where the young ducklings be hatched. Great therefore is their deſire, and earneſt is their ſtudy to take heed, not only to their brood, but alſo to themſelves. For when they have an inkling that they are eſpied, they hide themſelves under turfes or ſedges, wherewith they cover and ſhroud themſelves ſo cloſely and ſo craftily, that (notwithſtanding the place where they lurk be found and perfectly perceived) there they will harbour without harm, except the Water Spaniel by quick ſmelling diſcover their deceits.

Of the *DOG* called the *FISHER*; in *Latin* *Canis Piſcator.*

THe Dog called the Fiſher, whereof *Hector Boetius* writeth, which ſeeketh for Fiſh by ſmelling among rocks and ſtones, aſſuredly I know none of that kind in *England*, neither have I received by report that there is any ſuch, albeit I have been diligent and buſie in demanding the queſtion as well of Fiſhermen as alſo huntſmen in that behalf, being careful and earneſt to learn and underſtand of them if any ſuch were, except you hold opinion that the Beaver or Otter is a Fiſh (as many have believed) and according to their belief affirmed, as the bird *Pupine*, is thought to be a fiſh, and ſo accounted. But that kind of Dog which followeth the fiſh to apprehend and take it (if there be any of that diſpoſition and property) whether they do this thing for the game of hunting, or for the heat of hunger, as other Dogs do which rather then they will be famiſhed for want of food, covet the carcaſes of carrion and putrified fleſh. When I am fully reſolved and diſburthened of this doubt, I will ſend you certificate in writing In the mean ſeaſon I am not ignorant of that both *Ælianus* and *Aetius*, call the Beaver *Kunapotamion* a water Dog, or a Dog-fiſh, I know likewiſe thus much more, that the Beaver doth participate this property with the Dog, namely, that when fiſhes be ſcarce they leave the water and range up and down the land, making an inſatiable ſlaughter of young Lambs untill their paunches be repleniſhed, and when they have fed themſelves full of Fleſh, then return they to the water from whence they came. But albeit ſo much be granted that this Bever is a Dog, yet it is to be noted that we reckon it not in the beadrow of *Engliſh* Dogs as we have done the reſt. The ſea Calfe, in like manner, which our Countrey men for brevity ſake call a Seel, other more largely name a *Sea Veale*, maketh a ſpoil of fiſhes between rocks and banks, but it is not accounted in the Catalogue or number of our *Engliſh* Dogs, notwithſtanding we call it by the name of a Sea-Dog, or a Sea-Calf And thus much for our Dogs of the ſecond ſort, called in *Latin*, *Aucupatorii*, ſerving to take fowl either by land or water.

Of the delicate, neat, and prety kind of *DOGS* called the *SPANIEL GENTLE*, or the *COMFORTER*; in *Latin*, *Melitaus*, or *Fotor.*

THere is beſides thoſe which we have already delivered, another ſort of Gentle Dogs in this our *Engliſh* ſoil, but exempted from the order of the reſidue, the Dogs of this kind doth *Callimachus* call *Melitæos* of the Iſland *Melita*, in the ſea of *Sicily* (which at this day is named *Malta*) an Iſland indeed, famous and renowned with couragious and puiſſant Souldiers, valiantly fighting under the banner of Chriſt their unconquerable Captain) where this kind of Dogs had their principal beginning.

Theſe Dogs are little, prety, proper, and fine, and ſought for to ſatisfie the delicateneſs of dainty dames and wanton womens wils, inſtruments of folly for them to play and dally withal, to trifle away the treaſure of time, to withdraw their mindes from more commendable exerciſes, and to content their corrupted concupiſcences with vain diſport (a ſilly ſhift to ſhun irkſome idleneſs.) Theſe puppies the ſmaller they be, the more pleaſure they provoke, as more meet playfellowes for minſing miſtreſſes to bear in their boſomes, to keep company withal in their Chambers, to ſuccour with ſleep in bed, and nouriſh with meat at bord, to lay in their laps, and lick their lips as they ride in their Waggons: and good reaſon it ſhould be ſo, for courſeneſs with fineneſs hath no fellowſhip, but featneſs with neatneſs hath neighbourhood enough. That plauſible proverb verified upon a Tyrant, namely, that he loved his Sow better then his Son, may well be applyed to theſe kind of people, who delight more in Dogs that are deprived of all poſſibility of reaſon, then they do in children that be capeable of wiſdom and judgement. But this abuſe peradventure reigneth where there hath been long lack of iſſue, or elſe where barrenneſs is the beſt bloſſom of beauty.

The virtue which remaineth in the *SPANIEL GENTLE*, otherwiſe called the *COMFORTER.*

NOtwithſtanding many make much of thoſe prety puppies called Spaniels Gentle, yet if the queſtion were demanded what property in them they ſpie, which ſhould make them ſo acceptable and precious in their ſight, I doubt their anſwer would be long a coining. But ſeeing it was our intent to travail in this treatiſe, ſo, that the Reader might reap ſome benefit by his reading, we will communicate unto ſuch conjectures as are grounded upon reaſon. And though ſome ſuppoſe that ſuch Dogs are fit for no ſervice, I dare ſay, by their leaves, they be in a wrong box. Among all other qualities therefore of nature, which be known (for ſome conditions are covered with continual and thick clouds, that the eye of our capacities cannot pierce through them) we finde that theſe little Dogs are good to aſſwage the ſickneſs of the ſtomach, being oftentimes thereunto applyed as a plaiſter preſervative, or born in the boſom of the diſeaſed and weak perſon;

which effect is performed by their moderate heat. Moreover the diſeaſe and ſickneſs changeth his place and entreth (though it be not preciſely marked) into the Dog, which to be truth, experience can teſtifie, for theſe kinde of Dogs ſometimes fall ſick, and ſometimes die, without any harme outwardly inforced, which is an argument that the diſeaſe of the Gentleman, or Gentlewoman or owner whatſoever, entreth into the Dog by the operation of heat intermingled and infected. And thus have I hitherto handled Dogs of a gentle kind whom I have comprehended in a triple diviſion. Now it remaineth that I annex in due order, ſuch Dogs as be of a more homely kinde.

Dogs of a courſe kinde ſerving many neceſſary uſes, called in *Latin Canes ruſtici*, and firſt of the *Shepherds Dog*, called in *Latin*, *Canis Paſtoralis*.

THe firſt kinde, namely the Shepherds hound, is very neceſſary and profitable for the avoiding of harmes, and inconveniences which may come to men by the means of beaſts. The ſecond ſort ſerve for ſuccour againſt the ſnares and attempts of miſchievous men. Our Shepherds Dog is not huge, vaſt and big, but of an indifferent ſtature and growth, becauſe it hath not to deal with the bloudthirſty Wolfe, ſithence there be none in *England*, which happy and fortunate benefit is to be aſcribed to the puiſſant Prince *Edgar*, who to the intent that the whole Countrey might be evacuated and quite cleared from Wolves, charged and commanded the *Welſhmen* (who were peſtered with theſe butcherly beaſts above meaſure) to pay him yearly tribute (note the wiſdom of the King) three hundred Wolves. Some there be which write that *Ludwal* Prince of *Wales* paid yearly to King *Edgar* three hundred Wolves in the name of an exaction (as we have ſaid before.) And that by the means hereof, within the compaſs and term of four years, none of thoſe noiſom and peſtilent beaſts were left in the coaſts of *England* and *Wales*. This *Edgar* wore the Crown royal, and bare the Scepter imperial of this Kingdom, about the year of our Lord Nine hundred fifty nine. Since which time we read that no Wolf hath been ſeen in *England*, bred within the bounds and borders of this Countrey, marry there have been divers brought over from beyond the Seas, for greedineſs of gain and to make money, for gazing and gaping, ſtaring and ſtanding to ſee them, being a ſtrange beaſt, rare, and ſeldom ſeen in *England*. But to return to our Shepherds Dog: This Dog either at the hearing of his Maſters voice, or at the wagging and whiſtling in his fiſt, or at his ſhrill and hoarſe hiſſing bringeth the wandering weathers and ſtraying Sheep into the ſelf ſame place where his Maſters will and wiſh is to have them, whereby the Shepherd reapeth this benefit, namely that with little labour and no toil or moving of his feet he may rule and guide his flock, according to his own deſire, either to have them go forward, or to ſtand ſtill, or to draw backward, or to turn this way, or take that way. For it is not in *England*, as it is in *France*, as it is in *Flanders*, as it is in *Syria*, as it is in *Tartaria*, where the Sheep follow the Shepherd, for here in our Countrey the Shepherd followeth the Sheep. And ſometimes the ſtraying Sheep when no Dog runneth before them, nor goeth about and beſide them, gather themſelves together in a flock, when they hear the Shepherd whiſtle in his fiſt, for fear of the Dog (as I imagine) remembring this (if unreaſonable creatures may be reported to have memory) that the Dog commonly runneth out at his Maſters warrant, which is his whiſtle. This have we oftentimes diligently marked in taking our journey from Town to Town, when we have heard a Shepherd whiſtle we have rained in our horſe and ſtood ſtill a ſpace, to ſee the proof and tryall of this matter. Furthermore, with this Dog doth the Shepherd take Sheep for the ſlaughter, and to be healed if they be ſick, no hurt or harm in the world done to the ſimple creature.

Of the MASTIVE, or BANDOG; called in *Latin*, *Villaticus*, or *Catenarius*.

THis kind of Dog called a Maſtive or Bandog is vaſt, huge, ſtubborn, ugly, and eager, of a heavie and bourthenous body, and therefore but of little ſwiftneſs, terrible, and frightful to behold, and more fierce and fell then any *Arcadian* cur (notwithſtanding they are ſaid to have their generation of the violent Lion.) They are called *Villatici*, becauſe they are appointed to watch and keep farm-places and Countrey Cotages ſequeſtred from common recourſe, and not abutting upon other houſes by reaſon of diſtance, when there is any fear conceived of Theeves, Robbers, Spoilers, and Night-wanderers. They are ſerviceable againſt the Fox and Badger, to drive wilde and tame Swine out of Medowes, Paſtures, Glebelands, and places planted with fruit, to bait and take the Bull by the ear, when occaſion ſo requireth. One Dog or two at the utmoſt is ſufficient for that purpoſe, be the Bull never ſo monſtrous, never ſo fierce, never ſo furious, never ſo ſtern, never ſo untamable. For it is a kind of Dog capeable of courage, violent and valiant, ſtriking cold fear into the hearts of men, but ſtanding in fear of no man, in ſo much that no weapons will make him ſhrink, nor abridge his boldneſs. Our *Engliſhmen* (to the intent that their Dogs might be more fell and fierce) aſſiſt nature with art, uſe and cuſtom, for they teach their Dogs to bait the Bear, to bait the Bull and other ſuch like cruell and bloudy Beaſts (appointing an overſeer of the game) without any Collar to defend their throats, and oftentimes they train them up in fighting and wreſtling with any man having for the ſafegard of his life, either a Pikeſtaffe, a Club, or a ſword, and by uſing them to ſuch exerciſes as theſe, their Dogs become more ſturdy and ſtrong. The force which is in them ſurmounteth all belief, the faſt hold which they take with their teeth exceedeth all credit, three of them againſt a Bear, four againſt a Lion are ſufficient, both to trie maſteries with them, and utterly to overmatch them. Which thing *Henry* the ſeventh of that name, King of *England* (a Prince both politick and warlike) perceiving on a certain time (as the report runneth) commanded all ſuch Dogs (how many ſo ever were in number) ſhould be hanged, being deeply diſpleaſed, and conceiving great diſdain, that an ill favoured raſcal Cur ſhould with ſuch violent villany, aſſault the valiant Lion King of all beaſts. An example for all ſubjects worthy remembrance, to admoniſh them, that it is no advantage to them to rebell againſt the regiment of their Ruler, but to keep them within the limits of loyalty. I read an Hiſtory anſwerable to this of the ſelf ſame *Henry*, who having a notable and an excellent fair Falcon, it fortuned that the Kings Falconers, in the preſence and hearing of his grace, higgly commended his Majeſties Faulcon, ſaying, that it feared not to intermeddle with an Eagle, it was ſo venturous a Bird and ſo mighty; which when the King heard, he charged that the Falcon ſhould be killed without delay, for the ſelf ſame reaſon (as it may ſeem) which was rehearſed in the concluſion of the former hiſtory concerning the ſame king. This Dog is called in like manner, *Catenarius*, *a Catena*, of the chain wherewith he is tyed at the gates in the day time, leſt being looſe he ſhould do much miſchief, and yet might give occaſion of fear and terror by his big barking. And albeit *Cicero* in his Oration had *pro S. Roſ.* be of this opinion, that ſuch Dogs as bark in the broad day light ſhould have their legs broken, yet our Countrymen on this ſide the Seas, for their careleſneſs of life ſetting all at cinque and ſice are of a contrary judgement. For Theeves rogue up and down in every corner, no place is free from them, no not the Princes palace, nor the Countrymans cotage. In the day time they practiſe pilfering, picking, open robbing, and privie ſtealing, and what legerdemain lack they? not fearing the ſhameful and horrible death of hanging.

The cauſe of which inconvenience doth not only iſſue from nipping need and wringing want, for all that ſteal are not pinched with poverty, ſome ſteal to maintain their exceſſive and prodigal expences in apparel, their lewdneſs of life, their haughtineſs of heart, their wantonneſs of manners, their wilful idleneſs, their ambitious bravery, and the pride of the ſawcy *Salacones me galorrounton*, vain glorious and arrogant in behaviour, whoſe delight dependeth wholly to mount nimbly on horſe-back, to make them leap luſtily, ſpring and prance, gallop and amble, to run a race, to winde in compaſs, and ſo forth, living altogether upon the fatneſs of the ſpoil. Other ſome there be which ſteal, being thereto provoked by penury and need, like maſterleſs men applying themſelves to no honeſt trade, but ranging up and down, impudently begging and complaining of bodily weakneſs where is no want of ability. But valiant *Valentine* the Emperor, by wholeſome lawes provided that ſuch as having no corporal ſickneſs, ſold themſelves to begging, pleaded poverty with pretended infirmity, and cloaked their idle and ſlothful life with colourable ſhifts and cloudy cozening, ſhould be a perpetual ſlave and drudge to him, by whom their impudent idleneſs was bewrayed, and laid againſt them in publick place, leſt the inſufferable ſlothfulneſs of ſuch vagabonds ſhould be burthenous to the people, or being ſo hateful and odious, ſhould grow into an example.

Alfredus likewiſe in the Government of his Common-wealth, procured ſuch encreaſe of credit to juſtice and upright dealing by his prudent Acts & Statutes, that if a man travelling by the high way of the Countrey under his dominion, chanced to loſe a budget full of Gold, or his capcaſe farſed with things of great value, late in the evening, he ſhould finde it where he loſt it, ſafe, ſound, and untouched the next morning, yet (which is a wonder) at any time for a whole moneths ſpace if he ſought for it, as *Ingulphus Croyladenſis* in his hiſtory recordeth. But in this our unhappy age, in theſe (I ſay) our deviliſh days, nothing can eſcape the clawes of the ſpoiler, though it be kept never ſo ſure within the houſe, albeit the doors be lockt and boulted round about. This Dog in like manner of the *Grecians* is called *Oikouros*.

Of the *Latiniſts*, *Canis Coltos*; in *Engliſh*, the *Dog-keeper*.

Borrowing his name of his ſervice, for he doth not only keep Farmers houſes, but alſo Merchants manſions, wherein great wealth, riches, ſubſtance and coſtly ſtuffe is repoſed. And therefore were certain Dogs found and maintained at the common coſts and charges of the Citizens of *Rome* in the place called *Capitolium*, to give warning of Theeves coming. This kind of Dog is called,

In *Latin*, *Canis Laniarius*, in *Engliſh*, the *Butchers Dog*.

So called for the neceſſity of his uſe, for his ſervice affordeth great benefit to the Butcher as well in following as in taking his Cattel, when need conſtraineth, urgeth, and requireth. This kinde of Dog is likewiſe called,

In *Latin*, *Moloſſicus*, or *Moloſſus*,

after the name of a Countrey in *Epirus* called *Moloſſia*, which harboureth many ſtout, ſtrong, and ſturdy Dogs of this ſort, for the Dogs of that Countrey are good indeed, or elſe there is no truſt to be had in the teſtimony of writers. This Dog is alſo called,

In *Latin*, *Canis Mandatarius*, a *Dog meſſenger*, or *Carrier*,

upon ſubſtancial conſideration, becauſe at his Maſters voice and commandement, he carryeth letters from place to place, wrapped up cunningly in his leather collar, faſtned thereto, or ſowed cloſe therein, who leſt he ſhould be hindred in his paſſage, uſeth theſe helpes very skilfully, namely reſiſtance in fighting if he be not overmatched, or elſe ſwiftneſs and readineſſe in running away, if he be unable to buckle with the Dog that would fain have a ſnatch at his skin. This kinde of Dog is likewiſe called,

In *Latin*, *Canis Lunarius*; in *Engliſh*, the *Mooner*.

Becauſe he doth nothing elſe but watch and ward at an inch, waſting the weariſome night ſeaſon without ſlumbring or ſleeping, bawing and wawing at the Moon (that I may uſe the word of *Nonius*) a quality in mine own opinion ſtrange to conſider. This kind of Dog is alſo called,

In *Latin*, *Aquarius*; in *Engliſh*, a *Water-drawer*.

And theſe be of the geater and the weightier ſort, drawing water out of wels and deep pits, by a wheel which they turn round about by the moving of their burthenous bodies. This Dog is called in like manner,

Canis Carcinarius in *Latin*, and may aptly be *Engliſhed*, a *Tinkers Cur*.

Becauſe with marvellous patience they bear big budgets fraught with Tinkers tools, and metal meet to mend kettels, porrage-pots, skillets, and chafers, and other ſuch like trumpery requiſite for their occupation and loytering trade, eaſing him of a great burthen, which otherwiſe he himſelf ſhould carry upon his ſhoulders; which condition hath challenged unto them the foreſaid name. Beſides the qualities which we have already recounted, this kind of Dogs hath this principal property ingraffed in them, that they love their Maſters liberally, and hate ſtrangers deſpightfully; whereupon it followeth that they are to their Maſters in travelling a ſingular ſafegard, defending them forcibly from the invaſion of villains and Theeves, preſerving their lives from loſſe, and their health from hazzard, their fleſh from hacking and hewing, with ſuch like deſperate dangers. For which conſideration they are meritoriouſly termed,

In *Latin*, *Canes defenſores*; *Defending Dogs* in our mother tongue.

If it chance that the Maſter be oppreſſed, either by a multitude, or by the greater violence, and ſo be beaten down that he lie groveling on the ground, (it is proved true by experience) that this Dog forſaketh not his Maſter, no not when he is ſtark dead: But induring the force of famiſhment and the outragious tempeſts of the weather, moſt vigilantly watcheth and carefully keepeth the dead carkaſſe many dayes, indevouring furthermore, to kill the murtherer of his Maſter, if he may get any advantage. Or elſe by barking, by howling, by furious jarring, ſnarring, and ſuch like means betrayeth the malefactor as deſirous to have the death of his aforeſaid Maſter rigorouſly revenged. An example hereof fortuned within the compaſſe of my memory. The Dog of a certain wayfaring man travelling from the City of *London* directly to the Town of *Kingſtone* (moſt famous and renowned by reaſon of the triumphant coronation of eight ſeveral Kings) paſſing over a good portion of his journey, was aſſaulted and ſet upon by certain confederate Theeves lying in wait for the ſpoil in *Come-packe*, a perillous bottom, compaſſed about with Woods too well known for the manifold murders and miſchievous robberies there committed Into whoſe hands this paſſenger chanced to fall, ſo that his ill luck coſt him the price of his life.

And that Dog whoſe ſire was *Engliſh*, (which *Blondus* regiſtreth to have been within the banks of his remembrance) manifeſtly perceiving that his Maſter was murthered (this chanced not far from *Paris*) by the hands of one which was a ſuiter to the ſame woman, whom he was a wooer unto, did both bewray the bloudy Butcher, and attempted to tear out the villains throat, if he had not ſought means to avoid the revenging rage of the Dog. In fires alſo which fortune in the ſilence and dead time of the night, or in ſtormy weather of the ſaid ſeaſon, the older Dogs bark, baul, howl, and yell, (yea notwithſtanding they be roughly rated) neither willl they ſtay their tongues till the houſhold ſervants awake, riſe, ſearch, and ſee the burning of the fire, which being perceived they uſe voluntary ſilence, and ceaſe from yolping. This hath been, and is found true by triall, in ſundry parts of *England*.

There was no fainting faith in that Dog, which when his Maſter by a miſchance in hunting ſtumbled and fell, toppling down a deep ditch being unable to recover of himſelf, the Dog ſignifying his Maſters miſhap, reſcue came, and he was haled up by a rope, whom the Dog ſeeing almoſt drawn up to the edge of the ditch, cheerfully ſaluted, leaping and skipping upon his Maſter as though he would have imbraced him, being glad of his preſence, whoſe longer abſence he was loath to lack. Some Dogs there be, which will not ſuffer fiery coles to lie ſcattered about the hearth, but with their pawes will rake up the burning coles, muſing and ſtudying firſt with themſelves how it might conveniently be done. And if ſo be that the coles caſt too great a heat, then will they bury them in aſhes and ſo remove them forward to a fit place with their noſes. Other Dogs be there which execute the office of a Farmer in the night time. For when his Maſter goeth to bed to take his natural ſleep; And when,

A hundred bars of braſſe and iron bolts,
Make all things ſafe from ſtarts and from revolts,
When Janus keeps the gate with Argus eye,
That dangers none approach, no miſchief nie,

As *Virgil* vaunteth in his Verſes: Then if his Maſter biddeth him goe abroad, he lingereth not, but rangeth over all his lands thereabout, more diligently, I wys, then any Farmer himſelf. And if he finde any thing there that is ſtrange and pertaining to other perſons beſides his Maſter, whether it be man, woman, or beaſt, he driveth them out of the ground, not medling with any thing that do belong to the poſſeſſion and uſe of his Maſter. But how much faithfulneſs, ſo much diverſity there is in their natures.

For there be ſome, which bark only with free and open throat, but will not bite, ſome which do both bark and bite, and ſome which bite bitterly before they bark.

The firſt are not greatly to be feared, becauſe they themſelves are fearful, and fearful Dogs (as the Proverb importeth) bark moſt vehemently.

The ſecond are dangerous, it is wiſdom to take heed of them, becauſe they ſound as it were, an *Alarum* of an afterclap, and theſe Dogs muſt not be over much moved or provoked, for then they take on outragiouſly, as if they were mad, watching to ſet the print of their teeth in the fleſh. And theſe kinde of Dogs are fierce and eager by nature.

The third are deadly, for they fly upon a man without utterance of voyce, ſnatch at him, and catch him by the throat, and moſt cruelly bite out collops of fleſh. Fear theſe kinde of Curs, (if thou be wiſe and circumſpect about thine one ſafety) for they be ſtout and ſtubborn Dogs, and ſet upon a man at a ſuddain unawares. By theſe ſignes and tokens, by theſe notes and arguments our men diſcern the towardly Cur from the couragious Dog, the bold from the fearful, the butcherly from the gentle and tractable. Moreover they conjecture, that a Whelp of an ill kinde is not worth keeping and that no Dog can ſerve the ſundry uſes of men ſo aptly and conveniently as this ſort, of whom we have ſo largely written already. For if any be diſpoſed to draw the above named ſervices into a Table, what man more clearly, and with more vehemency of voyce giveth warning either of a waſtful Beaſt, or of a ſpoyling theef then this? who by his barking (as good as a burning Beacon) foreſheweth hazards at hand. What manner of Beaſt ſtronger? What ſervant to his Maſter more loving? What companion more truſty? What Watchman more vigilant? What revenger more conſtant? What Meſſenger more ſpeedy? What Water-bearer more painful? Finally, what Pack-horſe more patient? And thus much concerning *Engliſh* Dogs, firſt of the gentle kinde, ſecondly of the courſer kinde. Now it remaineth that we deliver unto you the Dogs of a Mungrel or Curriſh kinde, and then will we perform our task.

Containing CURS of the *Mungrel* and *Raſcal* ſort, and firſt of all the DOG called in *Latine*, *Admonitor*, and of us in *Engliſh*, *Wappe*, or *Warner*.

OF ſuch Dogs as keep not their kinde, of ſuch as are mingled out of ſundry ſorts, not imitating the conditions of ſome one certain ſpice, becauſe they reſemble no notable ſhape, nor exerciſe any worthy property of the true, perfect and gentable kinde, it is not neceſſary, that I write any more of them, but to baniſh them as unprofitable implements, out of the bounds of my Book, unprofitable I ſay, for any uſe that is commendable, except to entertain ſtrangers with barking in the day time, giving warning to them of the Houſe, that ſuch and ſuch be newly come, whereupon we call them admoniſhing Dogs, becauſe in that point they perform their Office.

Of the DOG called TURNESPIT, in *Latine*, *Veruverſator*.

THere is comprehended, under the Curs of the courſeſt kinde, a certain Dog in Kitchin-ſervice excellent. For when any meat is to be roaſted, they go into a wheel, which they turning round about with the weight of their bodies, ſo diligently look to their buſineſs, that no drudge nor ſcullion can do the feat more cunningly. Whom the popular ſort hereupon call Turn-ſpits, being the laſt of all thoſe which we have firſt mentioned.

Of the DOG called the DANCER, in *Latine*, *Saltator* or *Tympaniſta*.

THere be alſo Dogs among us of a Mungrel kinde, which are taught and exerciſed to dance in meaſure at the Muſical ſound of an inſtrument, as at the juſt ſtroke of the Drum; at the ſweet accent of the Cittern, and tuned ſtrings of the harmonious Harp, ſhewing many pretty tricks by the geſture of their bodies; as to ſtand bolt upright, to lye flat upon the ground, to turn round as a ring, holding their tails in their teeth, to beg for their meat, and ſundry ſuch properties, which they learn of their Vagabundical Maſters, whoſe inſtrument they are to gather gain withall in the City, Countrey, Town, and Village. As ſome which cary old Apes on their ſhoulders in coloured Jackets to move men to laughter for a little lucre.

Of other DOGS, a ſhort concluſion, wonderſully ingendred within the coaſt of this Countrey.

OF theſe there be three ſorts; the firſt bred of a Bitch and a Wolf, called in *Latine*, *Lyciſcus*; the ſecoud of a Bitch and a Fox, in *Latine*, *Lacena*; the third of a Bear and a Bandog, *Vrcanus*.

Of the firſt we have none naturally bred within the borders of *England*. The reaſon is for the want of Wolves, without whom no ſuch Dog can be ingendred. Again, it is delivered unto thee in this diſcourſe: how and by what means, by whoſe benefit, and within what circuit of time, this Countrey was clearly diſcharged of ravening Wolves, and none at all left, no, not the leaſt number, or to the beginning of a number, which is an *Vnarie*.

Of the ſecond ſort we are not utterly void of ſome, becauſe this our *Engliſh* ſoil is not free from Foxes, (for indeed we are not without a multitude of them, inſomuch as divers keep, foſter and feed them in their houſes among their Hounds and Dogs, either for ſome malady of minde, or for ſome ſickneſs of body) which peradventure the ſavour of that ſubtill Beaſt would either mitigate or expell.

The third which is bred of a Bear and a Bandog, we want not here in *England*, (A ſtrange and wonderful effect, that cruel enemies ſhould enter into the work of copulation, and bring forth ſo ſavage a Cur.) Undoubtedly it is even ſo as we have reported, for the fiery heat of their fleſh, or rather the pricking thorn; or moſt of all, the tickling luſt of lechery, beareth ſuch ſwing and ſway in them, that there is no contrariety for the time, but of conſtraint they muſt joyn to engender. And why ſhould not this be conſonant to truth? why ſhould not theſe Beaſts breed in this land, as well as in other forein Nations? For we read that Tygers and Dogs in *Hircania*, that Lyons and Dogs in *Arcadia*, and that Wolves and Dogs in *Francia* couple and procreate. In men and women alſo lightned with the Lantern of reaſon (but utterly void of vertue) that fooliſh, frantick, and fleſhly action (yet naturally ſeated in us) worketh ſo effectually, that many times it doth reconcile enemies, ſet foes at friendſhip, unanimity, and atonement, as *Moria* mentioneth. The *Vrcane* which is bred of a Bear and a Dog,

Is fierce, is fell, is ſtout and ſtrong,
And biteth ſore to fleſh and bone.
His furious force indureth long,
In rage he will be rul'd of none.

That I may uſe the words of the Poet *Gratius*. This Dog exceedeth all other in cruel conditions, his leering and fleering looks, his ſtern and ſavage viſage, maketh him in ſight fearful and terrible. He is violent in fighting, and whereſoever he ſet his tenterhook teeth, he taketh ſuch ſure and faſt hold, that a man may ſooner tear and rend him aſunder, then looſe him and ſeparate his chaps. He paſſeth not for the Wolf, the Bear, the Lyon, nor the Bull, and may worthily (as I think) be companion with *Alexanders* Dog which came out of *India*. But of theſe, thus much, and thus far may ſeem ſufficient.

A ſtart to *Out-landiſh* DOGS in this concluſion, not impertinent to the Authors purpoſe.

USe and cuſtome hath entertained others Dogs of an Out-landiſh kinde, but a few and the ſame being of a pretty bigneſs, I mean Iſland Dogs, curled and rough all over, which by reaſon of the length of their hair make ſhew neither of face nor of body: And yet theſe Curs, forſooth, becauſe they are ſo ſtrange, are greatly ſet by, eſteemed, taken up, and many times in the room of the Spaniel gentle or comforter. The nature of men is ſo moved, nay, rather maryed to novelties without all reaſon, wit, judgement or perſeverance, *Eromen allotrias, paroromen ſuggeneis.*

Out-landiſh toys we take with delight,
Things of our own Nation we have in deſpight.

Which fault remaineth not in us concerning Dogs only, but for Artificers alſo. And why? it is manifeſt that we diſdain and contemn our own Work-men, be they never ſo skilful, be they never ſo cunning, be they never ſo excellent. A beggerly Beaſt brought out of barbarous borders, from the uttermoſt Countreys Northward, &c. we ſtare at, we gaze at, we muſe, we marvail at, like an Aſs of *Cumanum*, like *Thales* with the brazen ſhanks, like the man in the Moon.

The which default *Hippocrates* marked when he was alive, as evidently appeareth in the beginning of his Book *Peri Agmon*, ſo entituled and named:

And we in our work entituled *De Ephemera Britannica*, to the people of *England* have more plentifully expreſſed. In this kinde look which is moſt blockiſh, and yet moſt waſpiſh, the ſame is moſt eſteemed, and not among Citizens only and jolly Gentlemen, but among luſty Lords alſo, and

Noblemen. Further I am not to wade in the foord of this diſcourſe, becauſe it was my purpoſe to ſatisfie your expectation with a ſhort treatiſe (moſt learned *Conrade*) not weariſome for me to write, nor tedious for you to peruſe. Among other things which you have received at my hands heretofore, I remember that I wrote a ſeveral deſcription of the *Getulian* Dog, becauſe there are but a few of them, and therefore very ſeldom ſeen. As touching Dogs of other kindes you your ſelf have taken earneſt pain in writing of them both lively, learnedly, and largely. But becauſe we have drawn this libel more at length then the former which I ſent you (and yet briefer then the nature of the thing might well bear) regarding your moſt earneſt and neceſſary ſtudies; I will conclude, making a rehearſal notwithſtanding (for memory ſake) of certain ſpecialities contained in the whole body of this my breviary. And becauſe you participate principal pleaſure in the knowledge of the common and uſual names of Dogs (as I gather by the courſe of your letters) I ſuppoſe it not amiſs to deliver unto you a ſhort table containing as well the *Latine* as the *Engliſh* names, and to render a reaſon of every particular appellation, to the intent that no ſcruple may remain in this point, but that every thing may be ſifted to the bare bottom.

A *Supplement* or *Addition*, containing a demonſtration of *DOGS* Names how they had their Original.

THe names contained in the general Table, forſomuch as they ſignifie nothing to you being a ſtranger, and ignorant of the *Engliſh* tongue, except they be interpreted: as we have given a reaſon before of the *Latine* words, ſo mean we to do no leſs of the *Engliſh*, that every thing may be manifeſt unto your underſtanding. Wherein I intend to obſerve the ſame order which I have followed before.

Sagax, in *Engliſh*, *Hund*, is derived of our *Engliſh* word hunt. One letter changed in another, namely T into D, as Hunt, Hund, whom if you conjecture to be ſo named of your Countrey word Hund, which ſignifieth the general name (*Dog*) becauſe of the ſimilitude and likeneſs of the words, I will not ſtand in contradiction (friend *Geſner*) for ſomuch as we retain among us at this day many *Dutch* words, which the *Saxons* left at ſuch time as they enjoyed this Countrey of *Britain*. Thus much alſo underſtand, that as in your language *Hand* is the common word, ſo in our natural tongue (*Dog*) is the univerſal, but Hund is particular and a ſpecial, for it ſignifieth ſuch a Dog only as ſerveth to hunt, and therefore it is called a Hund.

Of the Gaſe-hound.

The Gaſe-hound called in *Latine*, *Agaſeus*, hath his name of the ſharpneſs and ſtedfaſtneſs of his eye-ſight. By which vertue he compaſſeth that which otherwiſe he cannot by ſmelling attain. As we have made former relation, for to gaſe is earneſtly to view and behold, from whence floweth the derivation of this Dogs name.

Of the Gray-hound.

The Gray-hound called *Leporarius*, hath his name of this word Gre, which word ſoundeth, *Gradus* in *Latine*, in *Engliſh*, Degree. Becauſe among all Dogs theſe are the moſt principal, having the chiefeſt place, and being ſimply and abſolutely the beſt of the gentle kinde of Hounds.

Of the Levyner or the Lyemmer.

This Dog is called a *Levyner*, for his lightneſs, which in *Latine* ſoundeth *Levitas*. Or a Lyemmer, which word is borrowed of Lyemme, which the *Latiniſts* name *Lorum*: and wherefore we call him a Levyner of this word *Levitas*: (as we do many things beſides) why we derive and draw a thouſand of our terms out of the *Greek*, the *Latine*, the *Italian*, the *Dutch*, the *French*, and the *Spaniſh* tongue; (Out of which Fountains indeed, they had their Original iſſue.) How many words are buryed in the grave of forgetfulneſs; grown out of uſe; wreſted awry; and perverſly corrupted by divers defaults; we will declare at large in our Book entituled, *Symphonia vocum Britannicarum*.

Of the Tumbler.

Among Hounds the Tumbler called in *Latine*, *Vertagus*; which cometh of this word Tumbler, flowing firſt from the *French* Fountain. For as we ſay Tumble, ſo they *Tumbier*, reſerving our ſenſe and ſignification, which the *Latiniſts* comprehend under this word *Vertere*. So that we ſee thus much, that Tumbler cometh of *Tumbier*, the Vowel I, changed into the Liquid L, after the manner of our ſpeech. Contrary to the *French* and the *Italian* tongue: In which two Languages a Liquid before a Vowel for the moſt part is turned into another Vowel; as may be perceived in the example of theſe theſe two words, *Implere & plano*, for *Impiere & piano*, L, before E, changed into I, and L, before A, turned into I alſo. This I thought convenient for a taſt.

After ſuch as ſerve for hunting, orderly do follow ſuch as ſerve for hawking and fowling, among which the principal and chiefeſt is the Spaniel, called in *Latine*, *Hiſpaniolus*, borrowing his name of *Hiſpania*, wherein we *Engliſh* men not pronouncing the Aſpiration H, nor the Vowel I, for quickneſs and readineſs of ſpeech, ſay roundly a Spagnel.

Of

Of the Setter.

THe ſecond ſort is called a Setter, in *Latine*, *Index*. Of the word (*Set*) which ſiginifieth in *Engliſh* that which the *Latiniſts* mean by this word *Locum deſignare*, the reaſon is rehearſed before more largely, it ſhall not therefore need to make a new repetition.

Of the Water Spaniel or Finder.

THe Water Spaniel conſequently followeth, called in *Latine*, *Aquaticus*; in *Engliſh* a Water Spaniel, which name is compound of two ſimple words, namely Water, which in *Latine* ſoundeth *Aqua*, wherein he ſwimmeth, and *Spain*, *Hiſpania*, the Countrey from whence they came; not that *England* wanteth ſuch kinde of Dogs, (for they are naturally bred and ingendered in this Countrey) but becauſe they bear the general and common name of theſe Dogs ſince the time they were firſt brought over out of *Spain*. And we make a certain difference in this ſort of Dogs, either for ſomething which in their qualities is to be conſidered, as for an example in this kinde called the Spaniel, by the appoſition and putting to of this word Water, which two coupled together ſound Water Spaniel. He is called a Finder, in *Latine*, *Inquiſitor*; becauſe that by ſerious and ſecure ſeeking, he findeth ſuch things as be loſt, which word Finde in *Engliſh* is that which the *Latines* mean by this Verb *Invenire*. This Dog hath this name of his property, becauſe the principal point of his ſervice conſiſteth in the premiſes.

Now leaving the ſurview of hunting and hawking Dogs, it remaineth that we run over the reſidue, whereof ſome be called fine Dogs, ſome courſe, otherſome Mungrels or Raſcals. The firſt is Spaniel gentle called *Canis Melitæus*, becauſe it is a kinde of Dog accepted among Gentils, Nobles, Lords, Ladies, &c. who make much of them, vouchſafing to admit them ſo far into their company, that they will not only lull them in their laps, but kiſs them with their lips, and make them their pretty play-fellows. Such a one was *Gorgons* little puppy mentioned by *Theocritus* in *Syracuſis*, who taking his journey, ſtraightly charged and commanded his Maid to ſee to his Dog as charily and warily as to his childe: To call him in always that he wandred not abroad, as well as to rock the babe a ſleep, crying in the Cradle.

This Puppetly and pleaſant Cur, (which ſome frumpingly tearm Fyſting Hound) ſerves in a manner to no good uſe, except (as we have made former relation) to ſuccour and ſtrengthen qualing and qualming ſtomachs, to bewray bawdery, and filthy abhominable lewdneſs (which a little Dog of this kinde did in *Sicilia*) as *Ælianus* in his 7. Book of Beaſts, and 27. chapter recordeth.

Of Dogs under the courſer kinde, we will deal firſt with the Shepheards Dog, whom we call the Bandog, the Tydog, or the Maſtive, the firſt name is imputed to him for ſervice, *Quoniam paſtori famulatur*, becauſe he is at the Shepheards his Maſters commandment. The ſecond *a Ligamento* of the band or chain wherewith he is tyed. The third *a Sagina*, of the fatneſs of his body.

For this kinde of Dog which is uſually tyed, is mighty, groſs, and fat fed. I know this that *Auguſtinus Niphus* calleth this *Maſtinus*, (which we call *Maſtivus*) and that *Albertus* writeth how the *Lyciſcus* is ingendred by a Bear and a Wolf. Notwithſtanding the ſelf ſame Author taketh it for the moſt part *pro Moloſſo*, a Dog of ſuch a Countrey.

Of Mungrels and Raſcals ſomewhat is to be ſpoken: and among theſe, of the Wappe of Turnſpit, which name is made of two ſimple words, that is, of Turn, which in *Latine* ſoundeth *Vertere*, and of Spit which is *Veru*, or ſpede, for the *Engliſh* word inclineth cloſer to the *Italian* imitation, *Veruverſator*, Turnſpit. He is called alſo Waupe, of the natural noiſe of his voyce Wau, which he maketh in barking. But for the better and readier ſound, the vowel U, is changed into the conſonant P, ſo that for Waupe we ſay Wappe. And yet I wot well that *Nonius* borroweth his *Baubari* of the natural voyce Bau, as the *Grecians* do their *Bautein* of Wau.

Now when you underſtand this, that *Saltare* in *Latine* ſignifieth *Danſare* in *Engliſh*. And that our Dog is thereupon called a Dancer, and in the *Latine*, *Saltator*; you are ſo far taught as you were deſirous to learn: and now I ſuppoſe, there remaineth nothing, but that your requeſt is fully accompliſhed.

Thus (Friend *Geſner*) you have, not only the kindes of our Countrey Dogs, but their names alſo, as well in *Latine* as in *Engliſh*, their Offices, Services, Diverſities, Natures, and Properties, that you can demand no more of me in this matter. And albeit I have not ſatisfied your minde peradventure (who ſuſpecteſt all ſpeed in the performance of your requeſt imployed, to be meer delays) becauſe I ſtaid the ſetting forth of that unperfect pamphlet, which five years ago I ſent to you as a private friend for your own reading, and not to be printed and ſo made common, yet I hope (having like the Bear lickt over my young) I have waded over in this work to your contentation, which delay hath made ſomewhat better, and *Deuterai phrontides*, after wit more meet to be peruſed.

Of the diſeaſes of Dogs and their cures.

Blondus.

Now it is convenient to ſhut up this treatiſe of Dogs, with a recital of their ſeveral diſeaſes and cures thereof; for as all other creatures, ſo this beaſt is annoyed with many infirmities. Firſt, therefore if you give unto a Dog every ſeventh day, or twice in ſeven days broath or pottage, wherein Ivy is ſod, it will preſerve him ſound without any other medicine, for this herb hath the ſame operation in Dogs to make wholeſome their meat, that it hath in Sheep to clenſe their paſture. The ſmall fruits of Ellebor which are like to Onions, have power in them to purge the belly of Dogs: Other give them Goats-milk, or Salt beaten ſmall, or Sea-crabs beaten ſmall and put into water, or

Pliny.

Tardinus.

Albertus.

Staves-acre, and immediately after his purgation, ſweet Milk. If your Dog be obſtructed and ſtopped in the belly, which may be diſcerned by his trembling, ſighing, and removing from place to place, give unto him Oaten meal and water to eat, mingled together and made as thick as a Pulteſs, or leavened Oaten bread, and ſometime a little Whay to drink.

The Ancients have obſerved that Dogs are moſt annoyed with three diſeaſes, the ſwelling of the throat, the Gowt, and madneſs; but the later Writers have obſerved many noyſome infirmities in them. Firſt, they are oftentimes wounded by the teeth of each other, and alſo of wilde Beaſts: for cure whereof, *Blondus* out of *Maximus* writeth theſe remedies following: Firſt, let the ſinews, *fibres*, or griſtles of the wound be laid together, then ſow up the lips or upper ſkin of the wound with a needle and thred, and take of the hairs of the Dog which made the wound, and lay thereupon, untill the bleeding be ſtanched, and ſo leave it to the Dog to be licked; for nature hath ſo framed the Dogs tongue, that thereby in ſhort ſpace he cureth deep wounds.

Albertus. *Blondus.* *Plinius.*

And if he cannot touch the ſore with his tongue, then doth he wet his foot in his mouth, and ſo oftentimes put it upon the maim: or if neither of theſe can be performed by the Beaſt himſelf, then cure it by caſting upon it the aſhes of a Dogs head, or burned ſalt, mingled with liquid pitch poured thereupon. When a Dog returning from hunting is hurt about the ſnowt, by the venemous teeth of ſome wilde Beaſt, I have ſeen it cured by making inciſion about the wound, whereby the poyſoned bloud is evacuated, and afterward the ſore was anoynted with Oyl of Saint Johns-wort. Wood-worms cure a Dog bitten by Serpents. When he is troubled with Ulcers or rindes in his ſkin, pieces of Pot-ſheards beaten to powder and mingled with Vinegar and Turpentine, with the fat of a Gooſe; or elſe Water-wort with new Lard, applyed to the ſore, eaſeth the ſame: and if it ſwell, anoynt it with Butter.

Tardinus. *Albertus.* *Raſis.*

For the drawing forth of a thorn or ſplinter out of a Dogs foot, take Colts-foot and Lard, or the powder thereof burned in a new earthen pot; and either of theſe applyed to the foot, draweth forth the Thorn, and cureth the ſore: for by *Dioſcorides* it is ſaid, to have force to extract any point of a Spear out of the body of a man. For the Worms which breed in the Ulcers of their heels, take *Unguentum Egyptiacum*, and the juyce of peach-leaves: There are ſome very ſkilful Hunters which affirm, that if you hang about the Dogs neck ſticks of Citrine, as the wood dryeth, ſo will the Worms come forth and dy. Again, for this evill they waſh the wounds with water, then rub it with Pitch, Thyme, and the dung of an Oxe in Vinegar; afterward they apply unto it the powder of Ellebor. When a Dog is troubled with the Mangie, Itch, or Ring-worms, firſt let him blood in his fore-legs in the greateſt vein: afterward make an Ointment of Quick-ſilver, Brimſtone, Nettle-ſeed, and twice ſo much old Sewet or Butter, and therewithall anoint him, putting thereunto if you pleaſe decoction of Hops and Salt water.

Some do waſh Mangy Dogs in the Sea-water; and there is a Cave in *Sicily* (ſaith *Gratius*) that hath this force againſt the ſcabs of Dogs, if they be brought thither, and ſet in the running water which ſeemeth to be as thick as Oyl. Flegm or melancholy doth often engender theſe evils, and ſo after one Dog is infected, all the reſidue that accompany or lodge with him, are likewiſe poyſoned: for the avoiding thereof, you muſt give them Fumitory, Sorrel, and Whay ſod together; it is good alſo to waſh them in the Sea, or in Smiths-water, or in the decoction aforeſaid.

For the taking away of Warts from the feet of Dogs, or other members, firſt rub and friccaſe the Wart violently, and afterward anoint it with Salt, Oyl, Vinegar, and the powder of the rinde of a Gourd; or elſe lay unto it Aloes beaten with Muſtard-ſeed, to eat it off, and afterward lay unto it the little ſcories or iron chips, which fly off from the Smiths hot iron while he beateth it, mingled with Vinegar, and it ſhall perfectly remove them.

Blondus.

Againſt Tikes, Lyce, and Fleas anoint the Dogs with bitter Almonds, Staves-acre, or roots of Maple, or Cipers, or froth of Oyl, if it be old; and anoint alſo their ears with Salt-water, and bitter Almonds, then ſhall not the flies in the Summer time enter into them. If Bees or Waſps, or ſuch Beaſts ſting a Dog, lay to the ſore burned Rue, with Water; and if a greater Fly, as the Hornet, let the Water be warmed. A Dog ſhall be never infected with the Plague, if you put into his mouth in the time of any common Peſtilence, the powder of a Storks craw, or Ventricle, or any part thereof with Water: which thing ought to be regarded, (for no creature is ſo ſoon infected with the Plague as is a Dog and a Mule) and therefore they muſt either at the beginning receive medicine, or elſe be removed out of the air, according to the advice of *Gratius*:

> *Sed varii ritus, nec in omnibus una poteſtas;*
> *Diſce vices, & quæ tutela eſt proxima, tenta.*

Pliny. *Dioſcorides.*

Wolf-wort, and *Apocynon*, whoſe leaves are like the leaves of Ivie, and ſmell ſtrongly, will kill all Beaſts which are littered blinde; as Wolves, Foxes, Bears, and Dogs, if they eat thereof: So likewiſe will the root of *Chamæleon* and *Mezereon*, in Water and Oyl, it killeth Mice, Swine, and Dogs. *Ellebor*, and *Squilla*, and *Faba Lupina*, have the ſame operation. There is a Gourd (called *Zinziber* of the Water) becauſe the taſte thereof is like to Ginger, the Flower, Fruit, and Leaf thereof killeth Aſſes, Mules, Dogs, and many other four-footed Beaſts. The Nuts *Vomicæ*, are poyſon to Dogs, except their ear be cut preſently and made to bleed. It will cauſe them to leap ſtrangely up and down, and kill him within two hours after the taſting, if it be not prevented by the former remedy. *Theophraſtus Chryſippus* affirmeth, that the water wherein Sperage hath been ſod given to Dogs, killeth them: the fume of Silver or Lead hath the ſame operation.

Albertus. If a Dog grow lean, and not through want of meat, it is good to fill him twice or thrice with Butter, and if that do not recover him, then it is a ſign that the worm under his tongue annoyeth him, (which muſt be preſently pulled out by ſome Naul or Needle) and if that ſatisfie not; he cannot live, but will in ſhort time periſh. And it is to be noted, that Oaten bread leavened, will make a ſluggiſh Dog to become luſty, agile, and full of ſpirit. Blondus. Dogs are alſo many times bewitched, by the only ſight of Inchanters, even as Infants, Lambs, and other creatures, according to *Virgils* verſe;

Neſcio quis teneros oculus mihi faſcinat agnos.

For the bewitching ſpirit entereth by the eye into the heart of the party bewitched: for remedy whereof, they hang about the neck a chain of Corral, as for holy Herbs I hold them unprofitable.

To cure the watry eyes of Dogs, take warm water, and firſt waſh them therewith, and then make a plaiſter of meal and the white of an Egge, and ſo lay it thereunto. By reaſon of that ſaying, Ecleſ. 20. cap. *Bribes and gifts blinde the eyes of Iudges, even as a dumb Dog turneth away Correction.* Some Vincentius. have delivered, that green Crow-foot forced into the mouth of a Dog, maketh him dumb, and not able to bark: When a Dog becometh deaf, the Oyl of Roſes with new preſſed Wine infuſed into Tardinus. his ears, cureth him: and for the Worms in the ears, make a plaiſter of a beaten Spunge and the white of an Egge, and that ſhall cure it.

Pollux. The third kinde of Quinancy (called *Synanche*) killeth Dogs, becauſe it bloweth up their chaps, and Niphus. includeth their breath. The Cough is very noyſome to Dogs, wherefore their keepers muſt infuſe in-Blondus. to their Noſtrils two cups of Wine, with bruiſed ſweet Almonds: but *Tardinus* for this diſeaſe, preſcribed great Parſley ſod with Oyl, Honey, and Wine, and ſo given to the Dog. For the ſhortneſs of the breath, bore him through the ear, and if there be any help, that will prevail.

If a bone ſtick in the mouth of a Dog, hold up his head backward, and pour Ale into his mouth untill he cough, and ſo ſhall he be eaſed. When a Dog hath ſurfeited, and falleth to loath his meat, he eateth the herb *Canaria*, and is relieved (both againſt his ſurfeit, and alſo the bitings of Serpents.) For the Worms in the belly, he eateth Wheat in the ſtalk. The Gowt maketh the Dogs legs grow crooked, and it is never ſo cured, but that after a courſe or two they grow lame again. When his skin flyeth from his nails, take meal and water, and binde them thereunto for a remedy; and theſe are for the moſt part, thoſe diſeaſes wherewithall Dogs are infected, and the other are either cured by heat, or by eating of graſs: and ſo for this part, I conclude both the ſickneſs and cure of Dogs, with the ſaying of *Gratius*:

Mille tenent peſtes, curaque potentia major.

Of the bitings of mad Dogs and their cures.

Concerning the madneſs of Dogs, and their venemous bitings, we are now to ſpeak: and firſt of all, no reaſonable man ought to doubt, why the teeth of a mad Dog ſhould do more harm then of a ſound and healthy one: becauſe in rage and anger, the teeth of every Beaſt and creature, receive venome and poyſon from the head (as it is well obſerved by *Æginета*) and ſo at that time faſtning their teeth, they do more harm then at other times. Againſt the ſimple biting of a Dog, it is ſufficient but to uſe the urine of a Dog, for there is not much venome in thoſe wounds; and the urine alſo will draw out the prickles of a Hedge-hog, becauſe ſuch wounds have in them but little poyſon. Alſo (as *Actius* preſcribeth) it is very ſoveraign in ſuch wounds, firſt of all to cover and rub the ſore with the palm of ones hand, and then pour into it Vinegar and *Nitre*, ſo as it may deſcend to the bottom of the wound, and afterward lay unto it a new ſpunge wetted in the ſame Vinegar and *Nitre*, and let it be ſo continued for the ſpace of three days, and by the working thereof it ſhall be whole.

Alſo it is generally to be obſerved in all the bitings of men by Dogs, that firſt of all it is requiſite, that the wound be well rubbed over by the palm of the hand with Vinegar, then pour into the wounds Vinegar mixed with water or with *Nitre*, laying alſo a ſpunge thereupon, and ſo binde it upon the place, having firſt wetted the cloaths wherewithall you binde it with the ſaid Vinegar mixed, ſo let it remain bound up three days together, and afterward follow the common courſe of curing, as in every vulgar wounds, or elſe, lay thereunto Pellitory of the Wall, mingled and beaten with Salt, changing it every day, untill the cruſt or upper skin fall away.

It is alſo good ſometimes, the holes being ſmall, to wet Lint in Vinegar, and to purge the wound with powder of Aniſe-ſeed, or Cumin; laying the Lint upon the Aniſe for two or three days. The ſame being thus purged, take a medicine of the equall parts of Hony, Turpentine, Butter, Gooſe-greaſe, Marrow of a Hart, or Calf, melted betwixt the teeth of a man, and lay it thereunto, for it alſo cureth the bitings of men: but if the ſore be inflamed, then lay unto it Lentils ſod with the parings of Apples, and dryed, or the crums of bread with the juyce of Beets, and a little Oyl of Roſes, made like a plaiſter.

Divers Authors have alſo preſcribed theſe outward medicines againſt the bitings of Dogs in general, namely Vinegar ſpunged, the Lees of Vinegar, with *Nigella Romana*, *Venus* Hair, Alabaſter, Brine with Lint, Garlick mixed with Honey, and taken into the body, Lees of Wine, Almonds both ſweet and bitter mingled with Honey, dryed Aniſe-ſeeds burned, the leaves of black Hore-hound, or Archangel beaten with Salt, Scallions with Honey and Pepper of the caſe, the juyce of Onyons with Rue and Honey, or raw Onyons with Hony and Vinegar, but ſod ones with Honey and Wine, (if they be green) let them ly to the wound three days : the aſhes of Vine-trees with Oyl, aſhes of a Fig-tree with a Sear-cloth, beſide infinite other elaborate medicines, drawn from Trees, Fruits, Fields, Gardens, and all other creatures ; as if Nature had only ſtroven to provide ſundry ready cures for this evill above all other.

Leaving therefore the ſimple bitings of Dogs, let us proceed to the madneſs of Dogs and their bitings, wherein the greater danger muſt be conſidered, with greater circumſpection of remedies. Firſt therefore, the Ancients have derived *Rabiem*, of *Raviem*, madneſs, of the hoarſneſs of voyce, (becauſe a Dog at that time hath no perfect voyce.) But it is more probable, that *Rabies* cometh of *Rapiendo*, becauſe when a Dog beginneth to be oppreſſed herewith, he biteth, ſnatcheth, runneth to and fro, and is carryed from home and Maſter, to his own perdition : this by the *Græcians* is called *Lytta*, and *Cynolyſſos*.

By this evill, not only Dogs periſh, but all other creatures (except a Gooſe) bitten by them : and a man doth not eſcape without great perill. For *Albertus* relateth a ſtory, of a man whoſe arm was bitten by a mad Dog, and after twelve years the ſore brake forth again, and he dyed within two days ; and the reaſon hereof was (as in all likelihood that of *Cælius*) that when one and the ſame nature infecteth each other, as Dogs do Dogs, and men do men, then by reaſon of their ſimilitude and natural ſympathy, they receive the conſuming poyſon with all ſpeed : but if another nature infect that, betwixt whom in inclination and paſſion, there is a diſſimilitude and antipathy, (as is betwixt a Dog and a Man) then will the poyſon receive greater oppoſition, and be ſo much the longer before it receive predominant operation, becauſe the firſt overcometh Nature by treaſon, againſt which there is no reſiſtance ; and the ſecond by open force and proclamation of War, againſt which all the ſtrength and force of nature is combined and oppoſed.

Hereof alſo it came to paſs, that the Noble Lawyer *Baldus*, playing with his Dog at *Trent*, was bitten by him in his lip, and neglecting the matter (becauſe he never ſuſpected the Dogs madneſs) after four moneths the poyſon wrought upou him, and he periſhed miſerably. Thoſe Beaſts which have teeth like ſaws, (as Dogs, Wolves, and Foxes) go mad by nature, without the bitings of others, but thoſe which have no ſuch teeth (as Aſſes and Mules,) fall not mad at any time untill they be bitten by other.

Mathæolus. A Hiſtory of the death of *Baldus.*

Michal Epheſius.

Alſo it hath been obſerved, that ſometimes a mad Dog hath bitten, and there hath followed no harm at all, whereof this was the reaſon, becauſe poyſon is not equally in all his teeth ; and therefore biting with the purer and wholeſomer, the wound became not perillous.

Aug. Niphus.

A man bitten with a mad Dog, falleth mad preſently when he cometh under the ſhadow of a Corn-tree ; as it is affirmed by moſt Phyſitians, for that ſhadow ſetteth the poyſon on fire : but a man falling mad, of all creatures avoideth a Dog, and a Dog moſt of all falleth upon men. There are many things which ingender madneſs in Dogs, as hot wheaten bread dipped in Bean-water, melancholy bred within them, and not purged by *Canaria*, or other herbs, the menſtruous pollutions of Women, and the pain of his teeth. Their madneſs is moſt dangerous in the Dog-days, for then they both kill and periſh mortally ; for at that time their ſpittle or fome, falling upon mans body, breedeth great danger ; and that if a man tread upon the Urine of a mad Dog, he ſhall feel pain by it if he have a ſore about him : from whence it came to paſs, that a ſtone bitten by ſuch a Dog, was a common proverb of diſcord. Alſo it is obſerved, that if a wound be dreſſed in the preſence of man or woman, which hath been bitten by a mad Dog, that the pain thereof wil be encreaſed: and which is more, that abortment will follow upon Beaſts with young, or Egges covered by the Hen, by their preſence : But for remedy, they waſh their hands and ſprinckle themſelves, or the Beaſts with that water, whereby the evill is to be cured.

Ponzettus.

Pliny. Dog-days moſt perillous for mad Dogs.

Pliny.

If the gall of a mad Dog, about the bigneſs of a Lentill ſeed be eaten, it killeth within ſeven days, or elſe doth no harm at all, if it paſs ſeven days without operation. When a mad Dog had ſuddenly tore in pieces a garment about ones body, the Taylor or Botcher took the ſame to mend, and forgetting himſelf, put one ſide of the breach into his mouth to ſtretch it out to the other, and fell mad immediately. Men thus affected, fear all waters, their virile member continually ſtandeth, they ſuffer many Convulſions, and oftentimes bark like Dogs.

Bertrutius.

There was a certain Maſon at *Zurick*, who had his finger grievouſly bitten with a mad Dog about *Iuly*, whereunto he laid Garlick, Rue, and Oyl of Scorpions, and ſo it ſeemed to be healed, wherefore he took no counſel of any Phyſitian. About *Auguſt* following, he was taken with a Feaver, being firſt very cold, then very hot, and ſo continued ſweating for a day or two, and could not endure the cold air. He thirſted much, yet when water or drink was brought him, he was ſo afraid thereof that he could not drink : his ſweat was cold, and when he felt any cold air, he cryed out for fear it had been water : thus he remained trembling, and offering to vomit at the ſight of water, many times howling, and ſo periſhed after two days ended.

When a Dog is mad it may be known by theſe ſignes, for he will neither eat nor drink, he looketh awry and more ſadly then ordinary ; his body is lean, he caſteth forth thick fleam out of his noſtrils or mouth : He breatheth gaping, and his tongue hangeth out of his mouth. His ears is limber and weak, his tail hangeth downward : his pace is heavy and ſluggiſh untill he run, and then it is more raſh, intemperate and uncertain. Sometimes running, and preſently after ſtanding ſtill

Signes to know a mad Dog.

Bertrurius.
Ponzettus.

again: he is very thirſty, but yet abſtaineth from drink, he barketh not, and knoweth no man, biteing both ſtrangers and friends. His head hangeth downward; he is fearful, and runneth into ſecret places from his whelps or fellows, who often bark at him, and will not eat of bread upon which his bloud hath fallen. His eyes grow very red; he many times dyeth for fear of water: ſome diſcern it by laying Nuts or grains of Corn to the bitten place, and afterward take them away and caſt them to Hens or Pullen, who for hunger will eat them, and if after the eating the fowl live, the Dog will not be mad; but if it dye, then for certainty the Dog will fall mad. The which paſſions do alſo agree with them that are bitten by him; and it is not to be forgotten, that the bitings of the female bring more danger then the males.

The bodies of them that are thus wounded grow very dry, and are preſſed with inward burning Feavers, if by Muſick and delightful ſports they be not kept waking; many times they dye ſuddenly, or elſe recover for a ſmall time, and then fall into a relapſed malady.

Some give this to be the cauſe of their fear of water, becauſe their body growing dry, ſeemeth to forget all participation with humidity: but *Rufus* affirmeth, this cometh from melancholy, wherewithall theſe perſons are moſt commonly affected: which agreeth with an imagination they have, that they ſee Dogs in the water, and indeed it cannot be but their own countenance, which in theſe paſſions is very red, doth wonderfully afflict them, both in the water, and in all looking glaſſes.

Ætius.

When a certain Philoſopher (being bitten by a mad Dog) entred into a Bath, and a ſtrong apparition of a Dog preſented it ſelf unto him therein, he ſtrove againſt this imagination with a ſingular confident courage to the contrary, ſaying within himſelf; *Quid Cani commune eſt cum Balneo?* what hath a Dog to do in a Bath? and ſo went in and overcame his diſeaſe: which thing had ſeldom chanced, that a man hath recovered this malady after he fell into fear and trembling, except **Eudemus** and **Themiſo**, who obeying the requeſt of a friend of his, entred likewiſe into the water, and after many torments was recovered.

To conclude, ſome men in this extremity ſuffer moſt fearful dreams, profuſion of ſeed, hoarſneſs of voyce, ſhortneſs of breath, retention of urine, which alſo changeth colour, being ſometimes black, ſometimes like milk, ſometime thick, ſometime thin as water, rumbling in the belly, by reaſon of crudity, redneſs of the whole body, diſtention of nerves, heavineſs of minde, love of darkneſs, and ſuch like. Yet doth not this operation appear preſently upon the hurt, but ſometimes at nine days, ſometimes at forty days, ſometimes at half a year, or a year, or ſeven, or twelve year, as hath been already ſaid.

The cure of mad Dogs either for preventing or recovering.
Pliny.

For the cure of theſe Dogs, and firſt of all for the preventing of madneſs, there are ſundry invented obſervations. Firſt, it is good to ſhut them up, and make them to faſt for one day, then purge them with **Hellebor**, and being purged, nouriſh them with bread of Barley-meal. Other take them when they be young whelps, and take out of their tongue a certain little worm, which the *Græcians* call **Lytta**; after which time they never grow mad, or fall to vomiting, as *Gratius* noted in theſe verſes;

Namque ſubit nodis qua lingua tenacibus hæret
Vermiculum dixere, mala atque incondita peſtis, &c.
Iam teneris elementa mali, cauſaſque recidunt.

Pliny.

But immediately it being taken forth, they rub the tongue with Salt and Oyl. **Columella** teacheth that Shepheards of his time, took their Dogs tails, and pulled out a certain nerve or ſinew, which cometh from the Articles of the Back-bone into their tails, whereby they not only kept the tail from growing deformed and over-long, but alſo conſtantly believed, that their Dogs could never afterward fall mad: whereunto *Pliny* agreeth, calling it a caſtration or gelding of the tail, adding, that it muſt be done before the Dog be forty days old. Some again ſay, that if a Dog taſte of a Womans milk which ſhe giveth by the birth of a Boy, he will never fall mad. *Nemeſian* aſcribeth the cure hereof to *Caſtoreum* dryed and put into milk, but this is to be underſtood of them that are already mad, whoſe elegant verſes of the cauſe, beginning, and cure of a mad Dog, I have thought good here to expreſs:

Exhalat ſeu terra ſinus, ſeu noxius aer
Cauſa mali; ſeu cum gelidus non ſufficit humor,
Torrida per venas concreſcunt ſemina flammæ.

Whatſoever it be, he thus warranteth the cure.

Tunc viroſa tibi ſumes, multumque domabis
Caſtorea, adtritu ſilicis lenteſcere coges.
Ex ebore huc trito pulvis lectove feratur
Admiſcenſq; diu facies concreſcere utrumque.
Mox lactis liquidos ſenſim ſuperadde fluores,
Ut non cunctantes hauſtus infundere cornu
Inſerto poſſis, furiaſque repellere triſtes.

Armetia a King of *Valentia*, preſcribeth this form for the cure of this evill: let the Dog be put into the water, ſo as the hinder-legs do only touch the ground, and his fore-legs be tyed up like hands over his head, and then being taken again out of the water, let his hair be ſhaved off, that he may be pieled untill he bleed: then anoint him with Oyl of Beets, and if this do not cure him within ſeven days, then let him be knocked on the head, or hanged out of the way.

Albertus.

When a young male Dog ſuffereth madneſs, ſhut him up with a Bitch; or if a young Bitch be alſo oppreſſed, ſhut her up with a Dog, and the one of them will cure the madneſs of the other.

Blondus.

But the better part of this labor, is more needful to be employed about the curing of men, or other creatures which are bitten by Dogs, then in curing or preventing that natural infirmity. Wherefore it is to be remembred, that all other poyſoned wounds are cured by inciſion and circumciſing of the fleſh, and by drawing plaiſters, which extract the venom out of the fleſh, and comfort nature; and by Cupping-glaſſes, or burning Irons, (as *Cœlius* affirmeth) upon occaſion of the miraculous fiction of the Temple door Key of S. *Bellinus*, neer *Rhodigium*; for it was believed, that if a mad man could hold that Key in his hand red hot, he ſhould be delivered from his fits for ever.

The cure of a man or beaſt bitten by a mad Dog.

There was ſuch another charm or incantation among the *Apuleians*, made in form of a prayer againſt all bitings of mad Dogs, and other poyſons, unto an obſcure Saint (called *Vithus*) which was to be ſaid three Saterdays in the evening, nine times together, which I have here ſet down for no other cauſe but to ſhew their extream folly.

Alme Vithe pellicane
Oram qui tenes Appulam,
Littuſque Polygnanicum,
Qui morſus rabidos levas,
Iraſque canum mitigas,
Tu ſancte rabiem aſperam
Rictuſque canis luridos,
Tu ſævum prohibe luem.
I procul hinc rabies, procul hinc furor omnis abeſto.

A fooliſh charm and prayer to *Vithus*

But to come to the cure of ſuch as have been bitten by mad Dogs: Firſt I will ſet down ſome compound medicines to be outwardly applyed to the body: Secondly, ſome ſimple or uncompounded medicines: In the third place ſuch compounded and uncompounded potions, as are to be taken inwardly againſt this poyſon.

For the outward compound remedies, a plaiſter made of *Opponax* and Pitch, is much commended, which *Menippus* uſed, taking a pound of Pitch of *Brutias*, and four ounces of *Opponax* (as *Ætius* and *Actuarius* do preſcribe) adding withall, that the *Opponax* muſt be diſſolved in Vinegar, and afterward the Pitch and that Vinegar muſt be boyled together, and when the Vinegar is conſumed, then put in the *Opponax*, and of both together make like taynters or ſplints, and thruſt them into the wound, ſo let them remain many days together, and in the mean time drink an Antidote of Sea-crabs and Vinegar, (for Vinegar is alway pretious in this confection.) Other uſe *Baſilica*, Onyons, Rue, Salt, ruſt of Iron, White bread, ſeeds of Horehound, and Triacle: but the other plaiſter is moſt forcible to be applyed outwardly, above all medicines in the world.

Dioſcorides.

For the ſimple and uncompounded medicines to be taken againſt this ſore, are many: As Gooſegreaſe, Garlike, the root of wilde Roſes drunk; bitter Almonds, leaves of Chickweed, or Pimpernel, the old skin of a Snake pounded with a male-Sea-crab, Betony, Cabbage leaves, or ſtalks, with Parſneps and Vinegar, Lime and Sewet, powder of Sea-crabs with Hony; powder of the ſhels of Sea-crabs, the hairs of a Dog laid upon the wound, the head of the Dog which did bite, mixed with a little *Euphorbium*; the hair of a Man with Vinegar, dung of Goats with Wine, Walnuts with Hony and Salt, powder of Fig-tree in a Sear-cloth, Fitches in Wine, *Euphorbium*; warm Horſe-dung, raw Beans chewed in the mouth, Fig-tree-leaves, green Figs with Vinegar, fennel ſtalks, *Gentiana*, dung of Pullen, the liver of a Buck-Goat, young Swallows burned to powder, alſo their dung; the urine of a Man, an *Hyenæs* skin, Flower-deluce with Honey, a Sea-hearb called *Kakille*, *Silphum* with Salt, the fleſh and ſhels of Snayls, Leek-ſeeds with Salt, Mints, the tail of a Field-mouſe cut off from her alive, and ſhe ſuffered to live, roots of Burs, with Salt of the Sea-Plantain, the tongue of a Ram with Salt, the fleſh of all Sea-fiſhes, the fat of a Sea-calf and Vervine; beſide many other ſuperſtitious Amulets which are uſed to be bound to the arms, necks, and breaſts, as the Canine-tooth bound up in a leaf and tyed to the arm; a Worm bred in the dung of Dogs hanged about the neck; the root of *Gentian* in an *Hyænaes* skin, or young Wolfs skin, and ſuch like; whereof I know no reaſon beſide the opinion of men.

The inward compound potions or remedies againſt the bitings of Dogs may be ſuch as theſe. Take Sea-crabs, and burn them with twigs of white Vines, and ſave their aſhes, then put to them the powder of *Gentian* root well cleanſed, and ſmall beaten, and as oft as need requireth take two ſpoonfuls of the firſt, and one of the ſecond, and put them into a cup of pure and unmixed Wine, and ſo drink it for four days together, being well beaten and ſtirred, ſo as the Wine be as thick as a Cawdle; and there is nothing more forcible then Sea-crabs, *Hiera*, *Diaſcincum*, powder of Walnuts in warm rain Water, Triacle, *Caſtoreum*, Pills, Spurge-ſeed, and a decoction of *Indian* thorn with Vervine given in water. Theſe may ſerve for ſeveral compound inward remedies againſt theſe poyſons, and now follow the ſimple.

Firſt eating of Garlike in our meat, drinking of Wormwood, Rams fleſh burned and put into Wine ſo drunk. There is an Herb called *Alyſſon*, by reaſon of the power it hath againſt this evill, which being bruiſed and drunk, cureth it. The liver of a Boar dryed and drunk in Wine, hath the ſame operation Jews lime drunk in water, Leeks and Onyons in meat, Dogs bloud, the head, the vein under the tongue (commonly ſuppoſed to be a worm) and the liver of the Dog which hath done the hurt, are alſo preſcribed for a remedy of this evill: but eſpecially the liver or rennet of a young Puppey, the rinde of a wilde Fig-tree, a dram of *Caſtoreum*, with Oyl of Roſes, Centaury, or *Chameleon*; the root of a wilde Roſe; (called *Cynorrhodon* and *Cynosbaton*) *Ellebor*; the brain of a Hen drunk in ſome liquor, Sorrel, Honey, Mints, and Plantaine: but *Pimpinella Germanica* is given to all Cattel which are bitten by a mad Dog. Beſides many other ſuch like, which for brevity ſake I omit, concluding againſt all ſuperſtitious curing by Inchantments or ſuppoſed Miracles, ſuch as is in a certain Church of S. *Lambert*, in a City of *Picardy*, where the Maſs Prieſts when a man is brought unto them having this evill, they cut a croſs in his forehead, and lay upon the wound a piece of S. *Lamberts* ſtole burning, (which they ſay (though falſly) is reſerved to this day withour diminution) then do they ſow up the wound again, and lay another plaiſter upon it, preſcribing him a dyet; which is to drink water, and to eat hard Egs, but if the party amend not within forty days, they binde him hand and foot in his bed, and laying another bed upon him, there ſtrangle him, as they think without all ſin) and for preventing of much harm that may come by his life, if he ſhould bite another. This ſtory is related by *Alyſius*, and it is worth the noting, how murther accompanieth ſuperſtitious humane inventions, and the vain preſumptuous confidence of Croſs-worſhippers: and thus much of the madneſs of Dogs, and the cure thereof in men and beaſts.

In the next place, the concluſion of this tedious diſcourſe followeth, which is the natural medicines ariſing out of the bodies of Dogs, and ſo we will tye them up for this time.

The natural medicines.

Whereas the inward parts of men are troubled with many evils, it is delivered for truth, that if little *Melitæan* Dogs, or young ſucking Puppies, be laid to the breaſt of a childe or man that hath infectious paſſions or pains in his entrails, the pain will depart from the man into the beaſt; for which cauſe they burned them when they were dead. *Serenus* doth expreſs this very elegantly, ſaying;

Quin etiam catulum lactentem apponere membris
Convenit, omne malum tranſcurrere fertur in illum.
Cui tamen extincto munus debetur humandi,
Humanos quia contactus mala tanta ſequuntur,
Et junctum vitium ducit de conjuge conjux.

Amatus.
Hippocrates.
Furnerius.

If a Whelp be cut aſunder alive, and laid upon the head of a mad melancholike woman, it ſhall cure her, and it hath the ſame power againſt the Spleen. If a woman grow barren after ſhe hath born children, let her eat young Whelp-fleſh, and *Polypus* fiſh ſod in Wine and drink the broath, and ſhe ſhall have eaſe of all infirmities in her ſtomach and womb. Water diſtilled out of Whelps, cauſeth that pieled or ſhaven places ſhall never have more hair grow upon them.

With the fat of whelps, bowelled and ſod till the fleſh come from the bones, and then taken and put into another Veſſel, and the weak, reſolute, or paralytike members being therewith anointed, they are much eaſed if not recovered. *Alyſius* ſaith, he made experience of Puppies ſod alive in Oyl, whereby he cured his Gowty legd Horſes, and therefore it cannot chuſe but be much more profitable for a man.

The skin of a Dog held with the five fingers, ſtayeth Diſtillations; it hath the ſame operation in gloves and ſtockins, and it will alſo eaſe both Ach in the belly, head, and feet, and therefore it is uſed to be worn in the ſhoes againſt the Gowt.

Pliny.

The fleſh of mad Dogs is ſalted, and given in meat to them which are bitten by mad Dogs for a ſingular remedy. The bloud is commended againſt all intoxicating poyſons and pains in the ſmall guts, and it cureth ſcabs. The fat is uſed againſt deafneſs of the ears, the Gowt, Nits in the head, and incontinency of urine, given with Alum. A plaiſter made of the Marrow of a Dog and old Wine, is good againſt the falling of the fundament. The hair of a black Dog eaſeth the Falling ſickneſs, the Brains of a Dog in Lint and Wool laid to a mans broken bones for fourteen days together, doth conſolidate and joyn them together again, which thing cauſed *Serenus* to make theſe excellent verſes:

Infandum dictu cunctis procul abſit amicis,
Sed fortuna potens omen convertat in hoſtes,
Vis indigna novo ſi parſerit oſſa fragore,
Conveniet cerebrum blandi Canis addere fractis,
Lintea deinde ſuperque inductu nectere lanas
Sæpius & ſuccos conſpergere pinguis olivi,
Bis ſeptem credunt revale ſcere cuncta diebus.

The brain-pan or skull of a Dog clove aſunder, is applyed to heal the pain in the eyes; that is, if the right eye be grieved, thereunto apply the right ſide of the skull, if the left eye, the left ſide.

The vertues of a Dogs head made into powder are both many and unſpeakable, by it is the biting of mad Dogs cured; it cureth ſpots and bunches in the head; and a plaiſter thereof made with Oyl of Roſes, healeth the running in the head: it cureth alſo all tumors in privy parts, and in the ſeat, the chippings in the fingers, and many other diſeaſes.

The powder of the teeth of Dogs, maketh Childrens teeth to come forth with ſpeed and eaſe, and if their gums be rubd with a Dogs tooth, it maketh them to have the ſharper teeth: and the powder of theſe Dogs teeth rubbed upon the gums of young or old, eaſeth Tooth-ach, and abateth ſwelling in the gums. The tongue of a Dog is moſt wholeſome both for the curing of his own wounds by licking, as alſo of any other creatures. The Rennet of a Puppey drunk with Wine, diſſolveth the Colick in the ſame hour wherein it is drunk: and the Vomit of a Dog laid upon the belly of a Hydropick man, cauſeth water to come forth at his ſtool. The gall healeth all wheals and bliſters after they be pricked with a Needle, and mingled with Honey it cureth pain in the eyes, and taketh away white ſpots from them: likewiſe infuſed into the ears, openeth all ſtoppings, and cureth all inward pains in them.

Raſis.
Sextus.
Pliny.
Æſculapius.

The Spleen drunk in Urine, cureth the Spleenetick; the milt being taken from the Dog alive, hath the ſame vertue to help the milt of man. The skin of Bitches wherein they conceive their Puppies (which never touched the earth) is precious againſt difficulty in Childe-birth, and it draweth the Infant out of the womb. The milk of a Bitches firſt whelping, is an antidote againſt poyſon, and the ſame cauſeth hair never to come again, if it be rubbed upon the place where hairs are newly pulled off: Alſo infuſed into the eyes, driveth away the whiteneſs of them. Likewiſe there is no better thing to anoint the gums of young children withall, before they have teeth, for it maketh them to come forth with eaſe: it eaſeth likewiſe the pain of the ears, and with all ſpeed healeth burnt mouths by any hot meat: *Ora ambuſta cibo ſanabis lacte Canino.*

Dioſcorides.

The urine of a Dog taketh away ſpots and warts, and being mingled with Salt of *Nitre*, wonderfully eaſeth the Kings Evill. The dung of Dogs (called by the Apothecaries *Album Græcum*) becauſe the white is beſt, being ingendred by eating of bones, and therefore hath no ill ſavour; *Galen* affirmeth, that his Maſters in Phyſick, uſed it againſt old ſores, Bloody flixes, and the Quinſie; and it is very profitable to ſtanch the bloud of Dogs; and alſo againſt the inflamations in the breaſt of Women mingled with Turpentine. It was well preſcribed by *Avicen*, to expell congealed bloud out of the ſtomach and bladder, being taken thereof ſo much in powder as will lye upon a Golden Noble.

Of the *Ethiopian* EAL.

There is bred in *Ethiopia* a certain ſtrange Beaſt about the bigneſs of a Sea-horſe, being of colour black or browniſh: it hath the cheeks of a Boar, the tail of an Elephant, and horns above a cubit long, which are moveable upon his head at his own pleaſure like ears; now ſtanding one way, and anon moving another way, as he needeth in fighting with other Beaſts, for they ſtand not ſtiffe, but bend flexibly; and when he fighteth, he alway ſtretcheth out the one, and holdeth in the other, of purpoſe as it may ſeem, that if one of them be blunted and broken, then he may defend himſelf with the other. It may well be compared to a Sea-horſe, for above all other places it loveth beſt the waters.

Pliny.
Solinus.

Of the ELEPHANT.

There is no creature among all the Beaſts of the world, which hath ſo great and ample demonſtration of the power and wiſdom of Almighty God as the Elephant: both for proportion of body and diſpoſition of ſpirit; and it is admirable to behold the induſtry of our ancient fore-fathers, and noble deſire to benefit us their poſterity, by ſearching into the qualities of every Beaſt, to diſcover what benefits or harms may come by them to mankinde: having never been afraid either of the wildeſt, but they tamed them; the fierceſt, but they ruled them; and the greateſt, but they alſo ſet upon them. Witneſs for this part the Elephant, being like a living Mountain in quantity and outward appearance, yet by them ſo handled, as no little Dog became more ſerviceable and tractable.

The great uſe of the conſideration of an Elephant.

Among all the *Europæans* the firſt poſſeſſor of Elephants, was *Alexander Magnus*, and after him *Antigonus*, and before the *Macedonians* came into *Aſia*, no people of the world; except the *Africans* and the *Indians*, had ever ſeen Elephants. When *Fabritius* was ſent by the *Romans* to King *Pyrrhus* in Ambaſſage, *Pyrrhus* offered to him a great ſum of money, to prevent the War, but he refuſed private gain; and preferred the ſervice of his Countrey: the next day he brought him into his preſence, and thinking to terrifie him, placed behinde him a great Elephant, ſhadowed with cloth of Arras; the cloth was drawn, and the huge Beaſt inſtantly laid his trunk upon the head of *Fabritius*, ſending forth a terrible and direful voyce: whereat *Fabritius* laughing, perceiving the policy of the King, gently made this ſpeech;

The firſt man in *Europe* poſſeſſor of Elephants.
Pauſanias.
Plutarch.

Neque heri aurum, neque hodie beſtia me permovit.

I was neither tempted with thy Gold yeſterday, nor terrified with the ſight of this Beaſt to day: and ſo afterward *Pyrrhus* was overcome in War by the *Romans*, and *Manlius Curius Dentatus* did firſt of all bring Elephants in Triumph to *Rome*, calling them *Lucanæ Boves*, Oxen of the Wood, about

Eutropius.

the 472. year of the City; and afterward in the year of *Romes* building 502. when *Metellus* was high Prieſt, and overthrew the *Carthaginians* in *Sicily*, there were 142 Elephants brought in Ships to *Rome* and led in triumph, which *Lucius Piſo* afterward, to take away from the people opinions of the fear of them, cauſed them to be brought to the ſtage to open view and handling, and ſo ſlain; which thing *Pompey* did alſo by the ſlaughter of five hundred Lions and Elephants together; ſo that in the time of *Gordianus*, it was no wonder to ſee thirty and two of them at one time.

Julius Capit.

Of the ſeveral names in divers languages.

The original of the *Cæſars*.

An Elephant is by the *Hebrews* called *Behemah*, by way of excellency, as the *Latins* for the ſame cauſe call him *Bellua*, the *Chaldeans* for the ſame word, Deut. 14. tranſlate *Beira*; the *Arabians*, *Bebitz*; the *Perſians*, *Behad*; and the *Septuagint*, *Ktene*; but the *Grecians* vulgarly *Elephas*, not *Quaſi Elebas*, becauſe they joyn copulation in the water, but rather from the *Hebrew* word *Dephil*; ſignifying the Ivory tooth of an Elephant (as *Munſter* well obſerveth.) The *Hebrews* alſo uſe the word *Schen* for an Elephants tooth. Moreover *Heſychius* called an Elephant in the *Greek* tongue *Periſſas*; the *Latins* do indifferently uſe *Elephas* and *Elephantus*; and it is ſaid that *Elephantus* in the *Punick* tongue, ſignifieth *Cæſar*: whereupon when the Grandfather of *Julius Cæſar* had ſlain an Elephant, he had the name of *Cæſar* put upon him.

The *Italians* call this beaſt *Leofante*, or *Lionfante*; the *French*, *Elephante*; the *Germans*, *Helfant*; the *Illyrians*, *Slon*. We read but of three appellative names of Elephants; that is of one, called by *Alexander* the great *Ajax*, becauſe he had read that the buckler of great *Ajax* was covered with an Elephants skin, about whoſe neck he put a Golden collar, and ſo ſent him away with liberty. *Antiochus* one of *Alexanders* ſucceſſors had two Elephants, one of them he likewiſe called *Ajax*, in imitation of *Alexander*, and the other *Patroclus*, of which two this ſtory is reported by *Antipater*. That when *Antiochus* came to a certain ford or deep water, *Ajax* which was alway the Captain of the reſidue, having ſounded the depth thereof, refuſed to paſſe over, and turned back again, then the King ſpake to the Elephants and pronounced, that he which would paſſe over ſhould have principality over the reſidue: whereupon *Patroclus* gave the adventure, and paſſed over ſafely, and received from the King the ſilver trappings and all other prerogatives of principality; the other ſeeing it (which had alway been chief till that time) preferred death before ignominy and diſgrace, and ſo would never after eat meat but famiſhed for ſorrow.

Countries of the breed of Elephants.
Diodorus.
Ælianus.
Philoſtratus.
Solinus.

They are bred in the hot Eaſtern Countries, for by reaſon they can endure no cold, they keep only in the Eaſt and South. Among all, the *Indian* Elephants are greateſt, ſtrongeſt, and talleſt, and there are among them of two ſorts, one greater (which are called *Praſii*) the other ſmaller (called *Taxilæ*) They be alſo bred in *Africa*, in *Lybia*, much greater then a *Nyſæan* Horſe, and yet every way inferiour to the *Indian*; for which cauſe, if an *African* Elephant do but ſee an *Indian*, he trembleth, and laboureth by all means to get out of his ſight, as being guilty of their own weakneſs.

Vertomannus.
Leo Afer.
Paul Venetus.

There are Elephants alſo in the Iſle *Taprobane*, and in *Sumatra* in *Africa*. They are bred in *Lybia*, in *Æthiopia*, among the *Troglodytæ*, and in the Mountain *Atlas*, *Syrtes*, *Zames*, and *Sala*, the ſeven Mountains of *Tingitania*, and in the Countrey of *Baſman*, ſubject to the great *Cham*. Some Authors affirm, that the *African* Elephants are much greater then the *Indian*, but with no greater reaſon then *Columella* writeth, that there be as great beaſts found in *Italy* as Elephants are: whereunto no ſound Author ever yeelded.

The height and ſtature of Elephants.

Of all earthly creatures an Elephant is the greateſt: for in *India* they are nine cubits high, and five cubits broad; in *Africa* fourteen or fifteen full ſpans, which is about eleven foot high and proportionable in breadth, which cauſed *Ælianus* to write, that one Elephant is as big as three Bugils; and among theſe the Males are ever greater then the Females. In the Kingdom of *Melinda* in *Africk*, there were two young ones not above ſix monthes old, whereof the leaſt was as great as the greateſt Ox, but his fleſh was as much as you ſhall finde in two Oxen; the other was much grater.

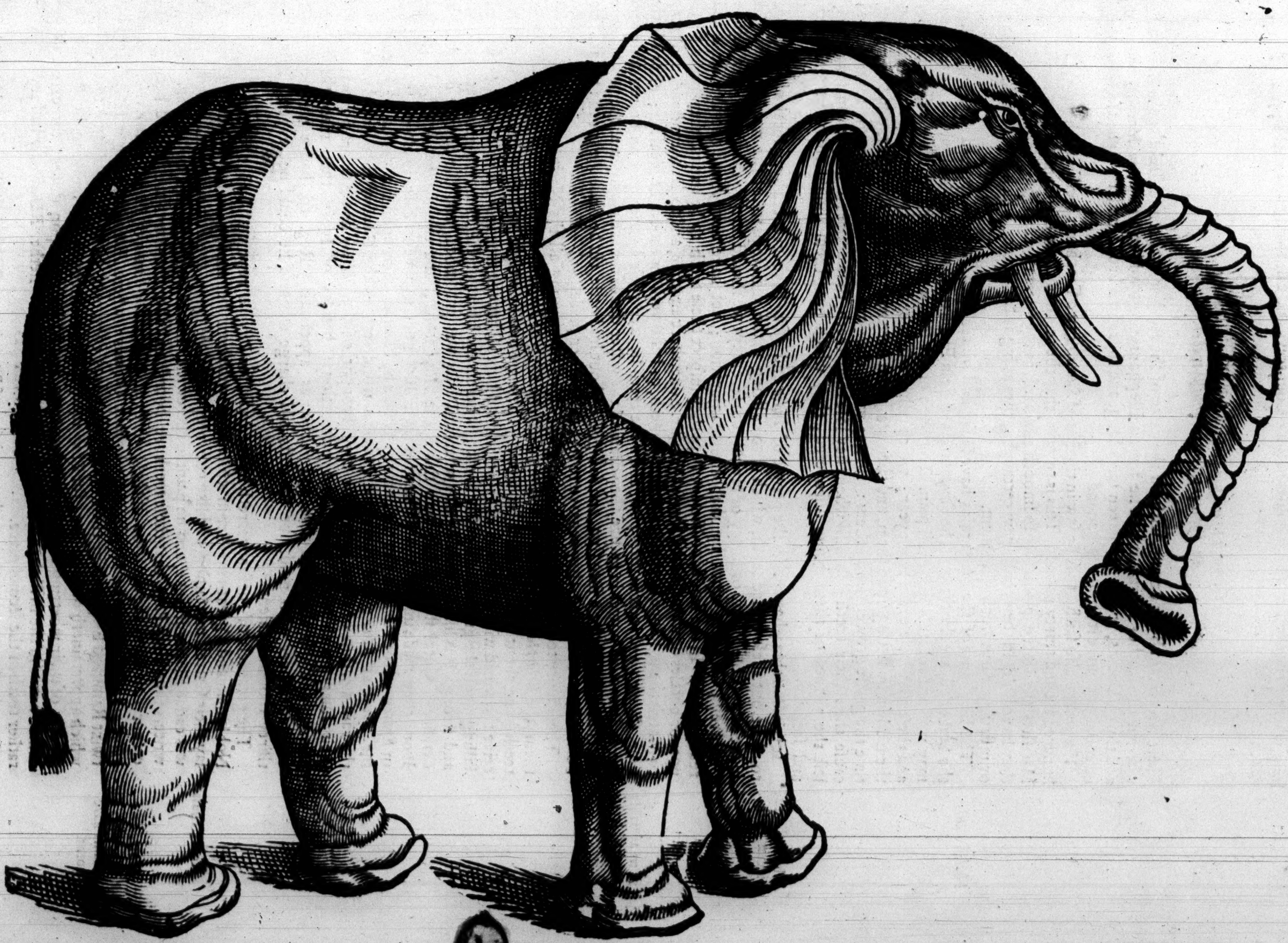
Vertomannus.
The colour and ſeveral parts.
Of the uſe of his skin.
Pliny.

Their colour is for the moſt part mouſe-colour, or black; and there was one all white in *Ethiopia*: The skin looketh pieled and ſcabby; it is moſt hard on the back, but ſofter underneath the belly, having no covering of hair or griſtles, nor yet help by his tail to drive away the flies, for that evill doth this beaſt feel in his great body, but alway hath creviſes in his skin, which by their ſavour do invite the little flies to a continual feaſt, but when by ſtretching forth they have received the ſwarmes, by ſhrinking together again, they incloſe the flies, and ſo kill them: ſo that theſe creviſes in his skin, are unto him in ſtead of a main, tail, and hair: yet there are ſome few hairs which grow ſcattering upon his hide, whereof ſome have been brought out of *America* into *Germany*, which were two palms long, but not ſo ſtiffe as Swines.

Gillius.

Pliny.
Vartomannus.
Of their teeth.
Ælianus.

Their skin is ſo hard and ſtiffe, that a ſharpe ſword or iron cannot pierce it. Their head is very great, and the head of a man may eaſily enter into their mouth, as a finger into the mouth of a Dog; but yet their ears and eyes are not equivalent to the reſidue of their proportion: for they are ſmall like the wings of a Bat or a Dragon, thoſe of the *Ethiopian Sambri* want ears altogether. Their eyes are like the eyes of Swine, but very red; they have teeth of either ſide four, wherewith they grind their meat like meal, and they have alſo two other which hang forth beyond the reſidue, in the males downward, and theſe are the greater and crooked; but in the females upward, and they are the ſmaller and ſtraight: the one of them they keep alwayes ſharp, to revenge injuries, and with the other they root up plants and trees, for their meat; ſo that nature hath armed both ſexes with



Gillius.
Pliny.

with theſe for their chiefeſt defence; and with theſe the females are calved at the firſt, and indued from the mothers belly, and appear ſo ſoon as they come forth; the males not ſo quickly, but rather after the manner of Bores and Sea-horſes, they hang out of their mouthes, and grow to be ten foot long, whereof they make poſts of houſes in ſome Countreys, and call them *Ebora*, that is, young Ivory; which cauſed *Martial* to write thus;

Grandia taurorum portant qui corpora, quæris
An Lybicas poſſint ſuſtinuiſſe trabes.

There is a certain Book extant, without the name of the Author, written of *Judea* or the *Holy land*, wherein the Author affirmeth that he ſaw an Elephants tooth ſold to a *Venetian* Merchant for ſix and thirty Ducats, it being fourteen ſpans long, and four ſpans broad, and it weighed ſo heavy, that he could not move it from the ground.

Vartomanus alſo ſaith, that he ſaw in the Iſle of *Sumatra*, two Elephants teeth, which weighed three hundred ſix and thirty pounds. This is certain, that the teeth of thoſe Elephants which live in the Mariſhes and watry places, are ſo ſmooth and hard, as they ſeem intractable, and in ſome places they have holes in them, and again certain bunches as big as hail-ſtones, which are ſo hard, as no art or inſtrument can work upon them.

Philoſtratus.

The Elephants of the Mountains have leſſer and whiter teeth, fit to be applyed to any work, but the beſt of all, are the teeth of the *Campeſtrial* and field Elephants, which are whiteſt and ſofteſt, and may well be handled without all pain. The teeth of the female are more pretious then of the male, and theſe they loſe every tenth year; which falling off, they bury and cover in the earth, preſſing them down by ſitting upon them, and then heal them over with earth by their feet, and ſo in ſhort time the graſſe groweth upon them: for, as when they are hunted they know it is for no other cauſe then their teeth; ſo alſo when they loſe their teeth, they deſire to keep them from men, leſt the virtues of them being diſcovered, they which bear them ſhould enjoy the leſſe peace and ſecurity.

The finding of hidden teeth.

Ælianus.

It is admirable what deviſes the people of *India* and *Africa* have invented by natural obſervation, to finde out theſe buried teeth, which unto us living in the remote parts of the world, we would judge impoſſible by any ordinary or lawful courſe, except we ſhould turn up the earth of a whole Countrey, or go to work by diabolical conjuration; yet have they found out this facile and ready courſe. In the woods or fields where they ſuſpect theſe teeth to be buried, they bring forth pots or bottles of water, and diſperſe them, here one, there another, and ſo let them ſtand, and tarry to watch them, ſo one ſleepeth, another ſingeth, or beſtoweth his time as he pleaſeth; after a little time, they go and look in their pots, and if the teeth lie near their bottles, by an unſpeakable and ſecret attractive power in nature, they draw all the water out of them that are neer them, which the watchman taketh for a ſure ſign, and ſo diggeth about his bottle, till he finde the tooth: but if their bottles be not emptied, they remove to ſeek in another place.

A wonderful natural ſecret.

Theſe Ivory teeth have been alway of great eſtimation among all the Nations that ever knew them, the *Ethiopians* payed for a tribute unto the King of *Perſia* every third year twenty of theſe teeth hung about with gold and Jet-wood. Theſe are ſold by weight, and there be many which deceive the world with the bones of Fiſhes in ſtead hereof, but the true Ivory is paler and heavier, and falling upon the ground will eaſily break, whereas the bones of Fiſhes are more tenacious, light and ſtrong. It is like to the *Chernites* wherein *Darius* was entombed, and the Marble called *Lapis Coraliticus*, Coral ſtone: like unto this is the *Alagi* ſtone, and the *Pæderos* Jewel. With this Ivory they made images and ſtatues for their Idol gods, as one for *Pallas* in *Athens*, for *Eſculapius* in *Epidaurus*, for *Venus* under the name of *Urania* by *Phidias*, whereupon ſhe was called *Elephantina*, for *Apollo* at *Rome*: and therefore *Pauſanias* wondereth at the *Grecians* that ſpared no coſt for the vain worſhip of their gods, for they brought of the *Indians* and *Ethiopians* Ivory to make their Images with more pomp and oſtentation: beſides of Ivory they make the hafts of knives, and alſo the beſt combs, and *Solomon* as appeareth 3 Reg. 10. had a throne of Ivory covered all over with gold, for the coſts and charge whereof he could not expend leſſe then thirty thouſand talents.

Rob. Cenalis.

The greatneſs of theſe appeareth by their uſe, for *Polybius* reporteth by the relation of *Galuſſa* a Nobleman and a great traveller in *Africa*, that with them they made poſts for houſes, and racks to lay their Cattels meat upon, and likewiſe folds to encloſe them. *Apelles* made an Ink of Ivory, which was called Elephants inke, and he painted therewith. It hath been affirmed by *Ælianus* and ſome writers following *Pliny*, that theſe teeth are horns, and that Elephants are horned beaſts, which errour roſe upon the occaſion of theſe words of *Pliny*; *Elephantos & arietes candore tantum cornibus aſſimilatis, in Santonum littore reciprocatos deſtituit Oceanus*: where *Ælianus* finding a reſemblance betwixt Rams and Elephants in their white horns, was contented to apply that name to them both, which appertaineth only to one; for *Pliny* himſelf *lib.* 18. ſheweth his meaning by another like ſpeech, of their whetting their horns upon trees, and *Rhinocerotes* upon ſtones: for except he had named horns in the firſt place it might have been queſtioned whether *Rhinocerotes* had any horns, but rather teeth in the ſecond place.

Pliny.
Whether Elephants have horns.

But whatſoever were the words or opinion of *Pliny*, it is moſt certain, that after *Herodotus* and other ancient writers, it is ſafer to call theſe teeth then horns, and I will briefly ſet down the reaſons of *Philoſtratus*, that will have them to be teeth ; and afterward of *Grapaldus*, *Ælianus*, and *Pauſanias*, that would make them horns, and ſo leave the Reader to conſider whether opinion he thinketh moſt agreeable to truth. Firſt, that they are not horns, it is alleadged that horns fall off and grow every year again, eſpecially of Harts, and grow forth of their heads; but teeth which are called *Fannæ* or *Gang-teeth*, ſtanding out of the mouth, fall off together, and are given for weapon and defence to beaſts, and ſuch are an Elephants. Again, a horn hath a certain line or circle neer the root, which is covered every year, but this cometh up like a ſtony ſubſtance, without all circle or cover, and therefore it cannot be a horn. Moreover, thoſe creatures are ſaid to have horns that have cloven hoofs, this hath no cloven hoof, but only five diſtinct fingers upon a foot. Laſtly, all horned beaſts have an empty hollowneſs in their horns (except Harts) but this is ſound and full thoroughout, except a little paſſage in the middle like a hole into a tooth : and thus ſay they which will have them called teeth.

Now on the contrary, thoſe which will have them horns, maake theſe arguments. Firſt, as the Elks have their horns grow out of their eye-lids, the *Rhinocerotes* or *Ethiopian* Buls out of their noſe, ſo as it is not unnatural for the Elephant to have his horns grow out of his mouth. Again, horns fall off and come again in old beaſts, but teeth do not ſo, and therefore theſe are horns and not teeth ; the power of fire cannot alter teeth, but theſe teeth break if you go about to change their porportion or figure, but horns of Oxen and Elephants may be ſtretched, bended, altered, ſtraightned, and applyed to what faſhion ſoever you will. Again, teeth grow out of the gums and cheek-bone, as it is apparent, but horns grow out of the ſcull and temples, and ſo do the Elephants, as by obſervation every man may diſcern. Laſtly, as nature hath given another ſhape and greater proportion of body to Elephants then to any other beaſts, ſo alſo it is not unreaſonable that it vary in the placing of his horns, for they grow downward, and the very mole and quantity of his body is ſufficient to arme him againſt the fear of death. Thus they argument for the horns of Elephants.

The Poets have a prety reſemblance of dreams, comparing true dreams to horns, and falſe dreams to Ivory, becauſe falſhood is ever more burniſhed, then naked and ragged truth. And beſides the eye of man is tranſlucent, and containeth in it a horny ſubſtance, and by the eye we alway receive the beſt aſſurance, but by the mouth (ſignified by teeth) are many falſhoods vented : and for that horns turn upward to heaven, the fountain of truth, but the teeth of an Elephant grow downward towards the earth the mother of error. And for this cauſe *Aeneas* by *Virgil* and *Homer*, is ſaid to come in at the horny gate of *Somnus*, and to go forth at the Ivory : *Virgils* Verſes are theſe :

Sunt geminæ Somni portæ, quarum altera fertur
Cornea, qua veris facilis datur exitus umbris.
Altera candenti perfecta nitens Elephanto,
Sed falſa ad cœlum mittunt inſomnia manes.
His ubi dum natum Anchiſes, unaque Sibyllam
Proſequitur dictis, portaque emittit eburna.

And here we will leave, and proſecute no further this diſcourſe of their horns and teeth, but proceed to the other outward parts of this beaſt.

The tongue is very ſmall though broad, his trunck called *Proboſcs* and *Promuſcis*, is a large hollow thing hanging from his noſe like skin to the groundward ; and when he feedeth it lyeth open, like the skin upon the bill of a Turkey-cock, to draw in both his meat and drink, uſing it for a hand, and therefore improperly it is called a hand. For by it he receiveth of his keeper whatſoever he giveth him, with it he overthroweth trees, and whereſoever he ſwimmeth, through it he draweth breath. It is crooked, griſtly, and inflexible at the root next to the noſe : within it hath two paſſages, one into the head and body by which he breatheth, and the other into his mouth, whereby he receiveth his meat : and herein is the work of God moſt wonderful, not only in giving unto it ſuch a divers proportion and anatomy, but alſo giving him reaſon to know this benefit of it, that ſo long as he is in the water and holdeth up that trunck, he cannot periſh.

Ariſtotle.
Ælianus.
Gillius.

With this he fighteth in war, and is able to take up a ſmall piece of money from the earth : with it he hath been ſeen to pull down the top of a tree, which twenty four men with a rope could not make to bend. With it he driveth away his Hunters when he is chaſed, for he can draw up therein a great quantity of water, and ſhoot it forth again, to the amazement and overthrow of them that perſecute him. The *Moors* ſay that he hath two hearts, one wherewithal he is incenſed, and another whereby he is pacified.

Vertomannus.

But the truth is, as *Ariſtotle* in the diſſection of the heart obſerved, there is a double ventricle and bone in the heart of an Elephant. He hath a Liver without any apparent gall, but that ſide of the Liver being cut, whereon the gall ſhould lie, a certain humour cometh forth like a gall. Wherefore *Ælianus* ſaith, he hath his gall in his maw-gut, which is ſo full of ſinews, that one would think he had four bellies ; in this receiveth he his meat, having no other receptacle for it. His intrails are like unto a Swines, but much greater.

His Liver four times ſo great as an Oxes, and ſo all the reſidue except the Milt. He hath two pappes a little beſide his breſt under his ſhoulders, and not between his hinder legs or loins, they

Ariſtotle.

are very ſmall and cannot be ſeen on the ſide The reaſons hereof are given, firſt that he hath but two pappes, becauſe he bringeth forth but one at a time, and they ſtand under his ſhoulders like an Apes, becauſe he hath no hoofs but diſtinct feet like a mans, and alſo becauſe from the breaſt floweth more aboundance of milke.

Cælius.
Gillius.

The genital part is like a Horſes, but leſſer then the proportion of his body affordeth: the ſtones are not outwardly ſeen, becauſe they cleave to his reins But the female hath her genital betwixt her thighes: the forelegs are much longer then the hinder legs, and the feet be greater. His legs are of equall quantity, both above and beneath the knees, and it hath ancle bones very low. The articles do not aſcend ſo high as in other creatures, but kept low neer the earth. He bendeth his hinder legs like a mans when he ſitteth, but by reaſon of his great weight he is not able to bend on both ſides together, but either leaneth to the right hand or to the left, and ſo ſleepeth: It is falſe that they have no joints or articles in their legs, for when they pleaſe they can uſe, bend, and move them, but after they grow old, they uſe not to lie down or ſtrain them, by reaſon of their great weight, but take their reſt leaning to a tree: and if they did not bend their legs, they could never go any ordinary and ſtayed pace. Their feet are round like a Horſes, but ſo as they reach from the middle every way two ſpans length, and are as broad as a buſhel, having five diſtinct toes upon each foot, the which toes are very little cloven, to the intent that the foot may be ſtronger, and yet parted, that when he treadeth upon ſoft ground, the weight of his body preſſe not down the leg too deep. He hath no nails upon his toes, his tail is like an Oxes tail, having a little hair at the end, and the reſidue thereof peeled and without hair: He hath not any briſtly hairs to cover his back. And thus much for their ſeveral parts and their uſes.

Their inward natural parts.
Ælianus.
Tzetzes.
The places of their abode.
Pliny.
Leo Afer.

There is not any creature ſo capable of underſtanding as an Elephant, and therefore it is requiſite to tarry ſomewhat the longer in expreſſing the ſeveral properties, and natural qualities thereof, which ſundry and variable inclinations, cannot chooſe but bring great delight to the Reader. They have a wonderful love to their own Countrey, ſo as although they be never ſo well delighted with divers meats and joyes in other places, yet in memory thereof they ſend forth tears, and they love alſo the waters, rivers, and mariſhes, ſo as they are not unfitly called *Riparii*, ſuch as live by the rivers ſides: although they cannot ſwim by reaſon of their great and heavie bodies, untill they be taught. Alſo they never live ſolitary, but in great flocks, except they be ſick or watch their young ones, and for either of theſe they remain adventurous unto death, the eldeſt leadeth the herd, and the ſecond driveth them forward, if they meet any man they give him way, and go out of his ſight.

Feſtus.
Philomelæ author.

Their voice is called by the word *Barrire*, that is, to bray, and thereupon the Elephants themſelves are called *Barri*; for his voice cometh out of his mouth and noſtrils together, like as when a man ſpeaketh breathing, wherefore *Ariſtotle* calleth it Raucity, or hoarſneſs, like the low ſound of a Trumpet, this ſound is very terrible in battails as ſhall be afterward declared.

The meat of wilde Elephants.
Pliny.
Solinus.
Ælianus.
Hermolaus.
Ælianus.
Simocratus.
A ſecret.
Pliny.
A ſecret in a Countrey of *India.*
Ælianus.

They live upon the fruits of Plants and roots, and with their truncks and heads, overthrow the tops of trees, and eat the boughs and bodies of them, and many times upon the leaves of trees he devoureth Chamæleons, whereby he is poiſoned and dyeth, if he eat not immediately a wilde Olive. They eat earth often without harm, but if they eat it ſeldom, it is hurtful and procureth pain in their bellies, ſo alſo they eat ſtones. They are ſo loving to their fellows, that they will not eat their meat alone, but having found a prey, they go and invite the reſidue to their feaſts and chear, more like to reaſonable civil men, then unreaſonable brute beaſt. There are certain noble Melons in *Ethiopia*, which the Elephants being ſharp ſmelling beaſts, do winde a great way off, and by the conduct of their noſes come to thoſe Gardens of Melons, and there eat and devour them. When they are tamed they will eat Barlie either whole or ground: of whole at one time is given them nine *Macedonian* Buſhels, but of Meal ſix, and of drink either wine or water, thirty *Macedonian* pints at a time, that is, fourteen gallons; but this is obſerved, that they drink not wine except in war, when they are to fight, but water at all times, whereof they will not taſt, except it be muddy and not clear, for they avoid clear water, loathing to ſee their own ſhadow therein; and therefore when the *Indians* are to paſſe the water with their Elephants, they chuſe dark and cloudy nights wherein the Moon affordeth no light. If they perceive but a Mouſe run over their meat, they will not eat thereof, for there is in them a great hatred of this creature. Alſo they will eat dryed Figs, Grapes, Onions, Bulruſhes, Palmes, and Ivy leaves: There is a Region in *India*, called *Phalacrus*, which ſignifieth Balde, becauſe of an herb growing therein, which cauſeth every living thing that eateth thereof, to loſe both horn and hair, and therefore no man can be more induſtrious or wary to avoid thoſe places, then is an Elephant, and to forbear every green thing growing in that place when he paſſeth thorough it.

Their love to ſweet flowers.
Ælianus.

It will forbear drink eight dayes together, and drink wine to drunkenneſs like an Ape. It is delighted above meaſure with ſweet ſavours, ointments, and ſmelling flowers, for which cauſe their keepers will in the Summer time lead them into the medowes of flowers, where they of themſelves will by the quickneſs of their ſmelling, chuſe out and gather the ſweeteſt flowers, and put them into a basket if their keeper have any; which being filled, like dainty and neat men, they alſo deſire to waſh, and ſo will go and ſeek out water to waſh themſelves, and of their own accord return back again to the basket of flowers, which if they find not, they will bray and call for them. Afterward being led into their ſtable, they will not eat meat untill they take of their flowers and dreſſe the brims of their mangers therewith, and likewiſe ſtrew their room or ſtanding place, pleaſing themſelves with their meat, becauſe of the ſavour of the flowers ſtuck about their cratch, like dainty fed perſons which ſet their diſhes with green herbs, and put them into their cups of wine.

Their pace is very ſlow, for a childe may overtake them by reaſon of their high and large bodies (except in their feare) and for that cauſe cannot ſwim: as alſo by reaſon that the toes of their feet are very ſhort and ſmally divided. When they are brought into a Ship, they have a bridge made of wood, and covered with earth, and green boughs are ſet on either ſide, ſo that they imagine they go upon the land untill they enter into the Ship, becauſe the boughs keep them from ſight of the Sea. They are moſt chaſt, and keep true unto their males without all inconſtant love or ſeparation, admitting no adulteries amongſt them, and like men which taſt of *Venus* not for any corporal luſt, but for deſire of heirs and ſucceſſors in their families; ſo do Elephants without all unchaſt and unlawful luſt, take their venereal complements, for the continuation of their kinde, and never above thrice in all their dayes, either male or female ſuffer carnall copulation (but the female only twice.) Yet is their rage great when the female provoketh them, and although they fight not among themſelves for their females, (except very ſeldom) yet do they ſo burn in this fury, that many times they overthrow trees and houſes in *India* by their tuskes, and running their head like a Ram againſt them, wherefore then they keep them low and down by ſubtraction of their meat, and alſo bring ſome ſtranger to beat them. There was a certain cunning Hunter ſent into *Mauritania*, by the *Roman* Emperor, to hunt and take Elephants; on a day he ſaw a goodly young Elephant in copulation with another, and inſtantly a third approached with a direful braying, as if he would have eaten up all the company, and as it afterward appeared, he was an arrival to the female, which we ſaw in copulation with the other male: when he approached neer, both of them ſet themſelves to combat, which they performed like ſome unreſiſtable waves of the Sea, or as the hils which are ſhaken together by an earthquake, wherein each one charged the other moſt furiouſly for their love, to the terror and admiration of all the beholders, and ſo at laſt became both diſarmed of their teeth and horns by their often blowes, before one had overcome the other, and ſo at laſt by the hunters were parted aſunder, being ever afterward quiet from ſuch contentions about their females for copulation.

Gillius.
The ſhipping of Elephants.
Ælianus.
Ælianus.

The *Indians* ſeparate the ſtables of the females far aſunder from the males, becauſe at that time they overthrow their houſes. They are modeſt and ſhamefaſt in this action, for they ſeek the Deſerts, Woods, and ſecret places for procreation, and ſometimes the waters, becauſe the waters do ſupport the male in that action, whereby he aſcendeth and deſcendeth from the back of the female with more eaſe: and once it was ſeen, that in *Virgea* (a Countrey of the *Coraſcens*) two Elephants did engender out of *India*, otherwiſe they couple not out of their own Countries. When they go to copulation, they turn their heads towards the Eaſt, but whether in remembrance of Paradiſe, or for the *Mandragoras*, or for any other cauſe I cannot tell: the female ſitteth while ſhe is covered. They begin to engender, the male at ſix, ten, twelve, fifteen or twenty year old, the female not before ten years old. They couple but five dayes in two years, and never after the female is filled till ſhe have been clear one whole year; and after the ſecond copulation, he never more toucheth his female. At that time the male breatheth forth at his noſe a certain fat humour like a menſtruous thing, but the female hath them not till her place of conception be opened: and alway the day after her filling, ſhe waſheth herſelf before ſhe return to the flock.

The place and manner of their copulation.
Pliny.
Albertus.
Solinus.
The time of copulation.
Arrianus.

The time of their going with young is according to ſome, two years, and according to other, three; the occaſion of this diverſity is, becauſe their time of copulation cannot certainly be known, becauſe of their ſecrecy, for the greater bodies that beaſts have, they are the leſſe fruitful. She is delivered in great pain, leaning upon her hinder legs. They never bring forth but one at a time, and that is not much greater then a great Cow-calfe (of three monthes old) which ſhe nouriſheth ſix or eight year. As ſoon as it is Calved, it ſeeth and goeth, and ſucketh with the mouth, not with the trunck, and ſo groweth to a great ſtature.

Ariſtotle.
The time of their going with young.
Diodorus.
Pogius.
Ælianus.

The females when they have calved are moſt fierce, for fear of their young ones, but if a man come and touch them, they are not angry, for it ſeemeth they underſtand that he toucheth them not for any deſire to take or harm them, but rather to ſtroke and admire them. Sometimes they go into the water to the belly, and there calve for fear of the Dragon: the male never forſaketh her, but keepeth with her for the like fear of the Dragon, and feed and defend their young ones with ſingular love and conſtancy unto death; as appeareth by the example of one, that heard the braying of her calf fallen into a ditch, and not able to ariſe, the female ran unto it, and for haſt fell down upon it, ſo cruſhing it to death, and breaking her own neck with one and the ſame violent love.

The love of the male to the female, and of both to the Calf.
Tzetzes.

As they live in herds, ſo when they are to paſſe over a river or water, they ſend over the leaſt or youngeſt firſt, becauſe their great bodies together ſhould not cauſe the deep water to ſwell or riſe above their height: the other ſtand on the bank and obſerve how deep he wadeth, and ſo make account that the greater may with more aſſurance follow after the younger and ſmaller, then they the elder and taller; and the females carry over their Calves upon their ſnowts, and long eminent teeth binding them faſt with their truncks, (like as with ropes or male girts, that they may not fall) being ſometime holpen by the male; wherein appeareth an admirable point of natural wiſdom, both in the cariage of their young, and in ſending of the leſſer foremoſt, not only for the reaſon aforeſaid, but alſo becauſe they being hunted and proſecuted, it is requiſite that the greateſt

Plutarch.
Ælianus.
Philoſtratus.

and ſtrongeſt come in the rear and hindmoſt part, for the ſafegard of the weaker, againſt the fury of their perſecutors, being better able to fight then the foremoſt, whom in natural love and policy, they ſet fartheſt from the danger.

The bringing of Elephants out of Ships.

A ſecret, if true.

Mutius which had been thrice Conſul affirmeth, that he ſaw Elephants brought on ſhore at *Puteoli* in *Italy*: they were cauſed to go out of the Ship backward, all along the bridge that was made for them, that ſo the ſight of the Sea might terrifie them, and cauſe them more willingly to come on land, and that they might not be terrified with the length of the bridge from the continent. *Pliny* and *Solinus* affirm, that they will not go on ſhipboard, untill their keeper by ſome intelligible ſigne of oath, make promiſe unto them of their return back again.

Ariſtotle.
Of their fighting.

They ſometimes, as hath been ſaid, fight one againſt another, and when the weaker is overcome, he is ſo much abaſed and caſt down in minde, that ever after he feareth the voice of the conquerour.

Gillius.
Ælianus.
Cœlius.
Zoroaſtres.
Their fear of Rams, Swine, and other beaſts.
Volaterranus.

The cruelty of the females to their wounded Calves.
Solinus.
Stat. Seboſi.

Ælianus.

They are never ſo fierce, violent, or wilde, but the ſight of a Ram tameth and diſmayeth them, for they fear his horns; for which cauſe the *Egyptians* picture an Elephant and a Ram, to ſignifie a fooliſh King that runneth away for a fearfull ſight in the field. And not only a Ram, but alſo the gruntling clamour or cry of Hogs: by which means the *Romans* overthrew the *Carthaginians* and *Pyrrhus* which truſted overmuch to their Elephants. When *Antipater* beſieged the *Megarians* very ſtraitly with many Elephants, the Citizens took certain Swine and anointed them with pitch, then ſet them on fire and turned them out among the Elephants, who crying horribly by reaſon of the fire on their bodies, ſo diſtempered the Elephants, that all the wit of the *Macedonians* could not reſtrain them from madneſs, fury, and flying upon their own company, only becauſe of the cry of the Swine. And to take away that fear from Elephants, they bring up with them when they are tamed, young Pigges and Swine ever ſince that time. When Elephants are chaſed in hunting, if the Lions ſee them, they run from them like Hinde-calves from the Dogs of Hunters, and yet *Iphicrates* ſayeth, that among the *Heſperian* or weſtern *Ethiopians*, Lions ſet upon the young Calves of Elephants and wound them: but at the ſight of the mothers, which come with ſpeed to them, when they hear them cry, the Lions run away, and when the mothers finde their young ones imbrued in their own bloud, they themſelves are ſo inraged that they kill them, and ſo retire from them, after which time the Lions return and eat their fleſh. They will not indure the ſavour of a Mouſe, but refuſe the meat which they have run over: in the river *Ganges* of *India*, there are blew Wormes of ſixty cubits long having two armes; theſe when the Elephants come to drink in that river, take their trunks in their hands and pull them off. There are Dragons among the *Ethiopians*, which are thirty yards or paces long, theſe have no name among the inhabitants but Elephant-killers. And among the *Indians* alſo there is as an inbred and native hateful hoſtility between Dragons and Elephants: for which cauſe the Dragons being not ignorant that the Elephants feed upon the fruits and leaves of green trees, do ſecretly convey themſelves into them or to the tops of rocks: covering their hinder part with leaves, and letting his head and fore part hang down like a rope, on a ſuddain when the Elephant cometh to crop the top of the tree, ſhe leapeth into his face, and diggeth out his eyes, and becauſe that revenge of malice is too little to ſatisfie a Serpent, ſhe twineth her gable like body about the throat of the amazed Elephant, and ſo ſtrangleth him to death.

Again they marke the footſteps of the Elephant when he goeth to feed, and ſo with their tails, net in and entangle his legs and feet: when the Elephant perceiveth and feeleth them, he putteth down his trunck to remove and untie their knots and gins; then one of them thruſteth his poiſoned ſtinging head into his Noſtrils, and ſo ſtops up his breath, the other prick and gore his tender belly-parts. Some again meet him and flie upon his eyes and pull them forth, ſo that at the laſt he muſt yeeld to their rage, and fall down upon them, killing them in his death by his fall, whom he could not reſiſt or overcome being alive: and this muſt be underſtood, that forſomuch as Elephants go together by flocks and herds, the ſubtil Dragons let the foremoſt paſſe, and ſet upon the hindmoſt, that ſo they may not be oppreſſed with multitude.

Alſo it is reported that the bloud of an Elephant is the coldeſt blood in the world, and that Dragons in the ſcorching heat of Summer, cannot get any thing to cool them, except this bloud; for which cauſe they hide themſelves in rivers and brooks whither the Elephants come to drink, and when he putteth down his trunck they take hold thereof, and inſtantly in great numbers leap up unto his ear, which is naked, bare and without defence: whereout they ſuck the blood of the Elephant untill he fall down dead, and ſo they periſh both together.

Of *Cinnabaris* or the beſt red colour.

Of this blood cometh that ancient *Cinnabaris*, made by commixture of the bloud of Elephants and Dragons both together, which alone is able, and nothing but it, to make the beſt repreſentation of blood in painting. Some have corrupted it with Goats-blood, and call it *Milton*, and *Mimum*, and *Monocroma*: it hath a moſt rare and ſingular vertue againſt all poiſons, beſide the unmatchable property aforeſaid.

Theſe Serpents or Dragons are bred in *Taprobana*, in whoſe heads are many pretious ſtones, with ſuch naturall ſeals or figurative impreſſions, as if they were framed by the hand of man, for *Podiſippus* and *Tzetzes* affirm, that they have ſeen one of them taken out of a Dragons head, having upon it the lively and artificial ſtampe of a Chariot.

The fight of Elephants.
Pliny.

Elephants are enemies to wilde Buls, and the *Rhinocerots*, for in the games of *Pompey*, when an Elephant and a *Rhinoceros* were brought together, the *Rhinoceros* ran inſtantly and whet his horn upon a ſtone, and ſo prepared himſelf to fight, ſtriking moſt of all at the belly of the Elephant, becauſe he knew that it was the tendereſt and moſt penetrable part of the body.

The *Rhinoceros* was as long as the Elephant, but the legs thereof were much ſhorter, and as the *Rhinocerotes* ſharpen their horns upon the ſtones, ſo do the Elephants their teeth upon trees: the ſharpneſs of either yeeldeth not to any ſteel. Eſpecially the *Rhinocerot* teareth and pricketh the legs of the Elephant. They fight in the woods for no other cauſe, but for the meat they live upon, but if the *Rhinocerot* get not the advantage of the Elephants belly, but ſet upon him in ſome other part of his body, he is ſoon put to the worſt, by the ſharpneſs of the Ivory tooth which pierceth through his more then buffe-hard skin (not to be pierced with any dart) with great facility, being ſet on with the ſtrength of ſo able an adverſary. The Tygre alſo feareth not an Elephant, but is fiercer and ſtronger, for he leapeth upon his head and teareth out his throat, but the Gryphins which overcome almoſt all beaſts, are not able to ſtand with the Lions or Elephants.

Ælianus.
Oppianus.
Strabo.

Euſtathius.

The females are far more ſtrong, chearful, and couragious then the males, and alſo they are apt to bear the greater burthens; but in War the male is more graceful and acceptable, becauſe he is taller, giving more aſſured enſignes of victory and fortitude: for their ſtrength is admirable, as may be conjectured by that which is formerly recited of their trunck, as *Vartoman* affirmeth, that he ſaw three Elephants with their only heads, drive a great Ship out of the Sea-water where it was faſtened unto the ſhore. When he is moſt loaded he goeth ſureſt, for he can carry a wooden Tower on his back with thirty men therein, and their ſufficient food and warlike inſtruments.

Vartomannus.
The conditions & courage of male and female.
Gillius.

The King of *India* was wont to go to war with 30000 Elephants of war, and beſide theſe he had alſo followed him 3000 of the chiefeſt and ſtrongeſt in *India*, which at his command would overthrow Trees, Houſes, Wals, or any ſuch thing ſtanding againſt him: and indeed upon theſe were the *Indians* wont to fight, for the defence of their Coaſt and Countrey. The fartheſt region of that continent is called *Partalis*, inhabited by the *Gangarides* and *Calingæ*, the King whereof was wont to have ſeven hundred Elephants to watch his Army, and there was no mean Prince in all *India* which was not Lord of many Elephants. The King of *Palibotræ* kept in ſtipend, eight thouſand every day, and beyond his Territory was the King of *Modubæ* and *Molindæ*, which had four hundred Elephants. Theſe fight with men, and overthrow all that come within their reach, both with their truncks and teeth.

Albertus.
The ſtrength and burthen of an Elephant.

Pliny.
The keepers & maintainers of Elephants.
Solinus.

There were certain officers and guiders of theſe Elephants, which were called *Elephantarchæ*, who were the governors of ſixteen Elephants, and they which did inſtitute and teach them Martial diſcipline, were called *Elephantagogi*. The Military Elephant did carry four perſons on his bare back, one fighting on the right hand, another fighting on the left hand, a third which ſtood fighting backward from the Elephants head, and a fourth in the middle of theſe holding the rains and guiding the beaſt to the deſcretion of the Souldiers, even as the Pilot in a Ship guideth the ſtern, wherein was required an equall knowledge and dexterity, for they underſtand any language quickly; for when the *Indian* which ruled them ſaid, Strike here on the right hand, or elſe on the left, or refrain and ſtand ſtill, no reaſonable man could yeeld readier obedience. They did faſten by iron chains, firſt of all upon the Elephant that was to bear ten, fifteen, twenty, or thirty men, on either ſide two panniers of iron bound underneath their belly, and upon them the like panniers of wood hollow, wherein they place their men at armes, and covered them over with ſmall boards, for the trunck of the Elephant was covered with a mail for defence, and upon that a broad ſword, and two cubits long: this (as alſo the wooden Caſtle or panniers aforeſaid) were faſtened firſt to the neck, and then to the rump of the Elephant. Being thus armed, they entred the battel, and they ſhewed unto the beaſt to make them more fierce, wine, red liquor made of Rice, and white cloth, for at the ſight of any of theſe, his courage and rage increaſeth above all meaſure; then at the ſound of the Trumpet he beginneth with teeth to ſtrike, tear, beat, ſpoil, take up into the air, caſt down again, ſtamp upon men under feet, ovethrow with his trunck, and make way for his riders to pierce with Spear, Shield, and Sword; ſo that his horrible voice, his wonderful body, his terrible force, his admirable skill, his ready and inclinable obedience, and his ſtrange and ſeldom ſeen ſhape, produced in a main battel no mean accidents and overturns. For this cauſe we read how that *Pyrrhus* firſt of all produced Elephants againſt the *Romaus* in *Lucania*: afterward *Aſdrubal* in *Africa*, *Antiochus* in the Eaſt, and *Jugurtha* in *Numidia*.

Pollux.
The inſtruction of Elephants for war.
Ælianus.

Againſt this new kinds of Caſtle-fighting, and Souldier-bearing beaſts, on the contrary they invented new kinds of ſtratagems, as is before ſet down, and alſo new inſtruments of war, for a *Centurion* in *Lucania* with a new deviſed ſharp Sword cut off the trunck of this beaſt, again other invented, that two armed Horſes ſhould draw a Chariot, and in the ſame armed men with Javelins and ſharp Spears, the ſpeedy Horſes ſhould with all force run upon the Elephants, and the ſpear-men directing their courſe and weapons, ſome upon the beaſt, other upon the riders, did not only wound the beaſt, but alſo by celerity of the Horſes, eſcape all danger.

The fight againſt Elephants.

Other again ſent againſt him armed Souldiers, having their Armour made full of ſharp pricks or piercing piked Nailes, ſo that when the beaſt did ſtrike at them with his trunck, he received grievous wounds by his own blowes. Again there were certain young men Souldiers, armed with light armour, which being mounted upon ſwift Horſes, could caſt Darts with ſingular facility, and without the reach of the beaſt, many times wounding him with long Spears, and ſo by example of the Horſe-men, the Foot-men, grew more bold, and with piles in the earth annoyed the belly of the beaſt, and utterly vanquiſhing it and the rider. Again, they deviſed ſlings to caſt ſtones, whereby they beat off the riders, and many times overthrew the Caſtle-bearer, as it were by ſome violent ſtroke of a Cannon ſhot; neither was there ever any more eaſie way to diſaſter theſe monſter-ſeeming Souldiers, then by caſting of ſtones; and laſtly they would ſuffer their Elephants and their riders by poor hopes and appearances of fear, to enter into the midſt among them, and ſo begirt and incloſe them, that they took the Elephants alive; and alſo more ſhooters of Darts caryed in Chariots with the ſtrong courſe of horſes, did ſo annoy them, that whereas their bodies were great and unweildy, not nimble to ſtir out of place, it became more eaſie to kill an Elephant then a Horſe, becauſe many ſhooters at one time could pierce ſo fair a mark with unreſiſtible weapons. And theſe things are related by *Vegetius*.

Games of Elephants.

At the laſt the fight with Elephants turned into a publick game or paſtime, both to ſee them fought withall by men, and alſo among themſelves. When certain priſoners of the *Romans* were taken by *Annibal*, he firſt conſtrained them to skirmiſh among themſelves, and ſo ſlew one another except only one; and he was by the like commandement forced to fight with an Elephant, but upon condition of liberty if he eſcaped alive: and thereupon joyned combate, and ſlew the Elephant, to the great grief and amazement of all the *Carthaginians*; but going home, according to agreement, *Annibal* fearing that by this fact thoſe great beaſts would grow into contempt, ſent certain Horſemen to kill him by the way.

Feneſtella.

Their trunck or hand is moſt eaſie to be cut off; for ſo it happened in the ædility or temple-office of *Claudius*, *Antonius* and *Poſthumus* being Conſuls, and afterward in the *Circus*, when the *Luculli* were the commons officers. And when *Pompey* was Conſul the ſecond time, there were 17 or 20 which at one time fought within the *Circus*, at the dedication of the Temple of *Venus* the *Victoria*, where the *Getulians* fought with them with Spears and Darts; for there happened an admirable accident, one of the Souldiers who having a hurt in his feet did creep upon his knees betwixt the legs of the Elephants, and caſt up the Darts over his head into the beaſts belly, which fell down round about him, to the great pleaſure of the beholders, ſo that many of the Elephants periſhed rather by Art then the ſtrength of the Souldier. No leſſe was the Miracle of another ſlain with one ſtroke, for a pile ran into his temples through his eye, and there ſtuck ſo faſt, that it could not be pulled forth again; which thing was afterward aſſayed by *Julius Cæſar*, and in the third time of his Conſulſhip, there were twenty Elephants, which in the Games fought with five hundred men, and ſo many with Towers on their backs, bearing threeſcore men in every Tower.

To conclude, Elephants are afraid of fire, and *Martial* made this *Epigram* of a Bull ſlain by an Elephant, which was wont to domineer in all their triuphant games, wherewithal I will conclude this diſcourſe.

Qui modo per totam flammis ſtimulatus arenam
Suſtulerat raptas Taurus in aſtra pilas,
Occubuit tandem cornuto ardore petitus,
Dum facilem tolli ſic Elephanta putat.

The taking of Elephants.
Pliny.
Strabo.

In the next place it is good to relate the ſtory of the taking and taming of Elephants, for in *Lybia* about the *Troglodytæ*, the hunting and taking of Elephants have given many names to ſeverall Towns, as *Elephantina*, and *Elephantis*, *Epitheræ*, *Philothera*, and the hunting of Elephants by *Ptolemais*, by the Port *Saba*, the City *Daraba*, and *Lycha*. In *Africk* they take them in great ditches, whereinto when they are fallen, the people preſently with boughs, mattocks, leaves, and digging down of high raiſed places, take them out again, and ſo turn them into a valley wrought by the labour of man, moſt firmely walled on both ſides, where with famine they tame him; for when he would gently take a bough at the hand of a man, they adjudged him tamed, and grew familiar with him, leading him away without all ſcruple.

Pliny.

But the *Indians* uſe a more ingenious and ſpeedy means to tame them, which is this; firſt, they dig alſo a great ditch, and place ſuch meat therein as the beaſt loveth, who winding it, and coming thereunto, for deſire thereof falleth into the foſſe or ditch: being ſo fallen in, and not able to come forth again, one cometh to him with Whips, beating him very grievouſly for a good ſpace, to the great grief of the beaſt, who through his incloſing can neither run away nor help himſelf; then cometh another during this time of puniſhment, and blameth the firſt man for beating the beaſt, who departeth preſently as one afraid of his rebuke, the other pitieth the beaſt, and ſtroaketh him, and ſo goeth away; then cometh the whipper again, and ſcourgeth the Elephant as before and that more grievouſly to his greater torment for a good ſpace together: whereupon the time fulfilled, the other cometh again and fighteth with the whipper, and forcibly ſeemeth to drive him away, and relieve the poor beaſt; and this they do ſucceſſively three or four times; ſo at the laſt, the Elephant groweth to know and love his deliverer, who by that means draweth him out and leadeth him away quietly: While this thing is doing, the ſmiter and whipper uſeth a ſtrange and unwonted kind of habit, ſo as he may never be known by the Elephant after he is tamed, for fear of revenge: of which you ſhall hear more afterward, in the farther diſcourſe and opening the nature of this beaſt.

Albertus.

Arrianus and *Strabo* relate another way whereby the *Indians* take their Elephants, which becauſe they write upon their own eye ſight, of the things they knew aſſuredly, I have thought good to expreſſe the deviſe; Four or five Hunters firſt of all chuſe out ſome plain place, without Trees or Hils, but declining, by the ſpace of ſome four or five furlongs; this they dig like a wide ditch as aforeſaid, and with the earth they take up, they raiſe wals about it like a trench, and in the ſides of the trench they make certain dens with holes, to convey in light to the Watch-men, whom they place therein, to give notice and obſerve when the Elephants are incloſed; then make they a narrow bridge covered with earth at the farther end of the trench, that the beaſts may dread no fallacy; and for the more ſpeedy effecting and compaſſing their deſire, they alſo include in the trench three or four tame female Elephants, to entiſe and draw into them the wilde ones.

Now theſe beaſts in the day time feed not ſo boldly as in the night, and therefore they cannot eaſily be deceived or taken in the light; but in the night great flocks of them follow the Captain (as we have already ſhewed) and ſo coming neer this trench, partly by the voice, and partly by the ſavour and ſmell of the females, they are drawn into the trench; then the Watchmen with all ſpeed, pull down the bridge, and other of them go into the next Townes to call for help, who upon the firſt notice thereof, come to the place mounted upon the beſt and ſtrongeſt tame Elephants, and ſo compaſſe them about, giving meat in their preſence to the tame, but beſieging the incloſed, they keep them from all meat and food, until they be ſo weakned that they dare enter in among them, but in this manner, they turn in their tame Elephants, and go under their bellies, and ſo when they come near the wilde Elephants, they ſpeedily convey themſelves under his belly, and lay unavoidable fetters upon their feet: then provoke they the tame ones to beat and fight with the wilde, who by reaſon of the manacles upon their feet are eaſily overthrown and fall to the ground; being on the ground, they put halters upon their necks made of raw Oxe hides, and ſo bind them to the tame and domeſtical Elephants: And while they lie on the ground, they get upon them, and to the intent that their Riders may be without danger of harm by them, they cut the skin of their necks round about in a circle, with a ſharp ſword, and upon the wound they tie and faſten a rope, that ſo the pain may conſtrain the beaſt to be quiet, ſo that by this they begin to feel their own weakneſs, and leave off their wildeneſs, betaking themſelves to the mercy of their new Maſters.

But thus raiſed from the earth again, and yoaked by the necks and legs to the tamed Elephants, they are ſafely led home into ſtables, where they are faſtened to great pillars by their necks, and if they refuſe to eat their meat, with Tymbrels, Cymbals, Harpes, and other muſical inſtruments, they are ſo entiſed from ſullen wildeneſs, that they forget their firſt natures, and yeeld all loving obedience to men, as to their victorious conquerors and unreſiſtible Maſters.

Ælianus.

Theſe beaſts by their ſagacity and natural inſtinct, do ſometime foreſee their own peril, and diſcover the trains and ſecret intentions of the Hunters, ſo as they cannot be drawn into the ditches and foſſes by any allurements; but preſaging their own misfortunes, turn back again upon their Hunters, even through the midſt of them, and ſo ſeek to ſave themſelves by flight, overthrowing their enemies that dare approach unto them. At which time there is a fierce fight, to the great ſlaughter many times both of men and beaſts; for the men to ſtay his flight, bend their ſpears, and charge their darts and arrowes, to ſtrike the Elephant directly on the face, and if the beaſt perceive that he hath overthrown any man, inſtantly he maketh to him, taketh him in his teeth, lifting him up into the air, and caſting him down again, ſtampeth upon him, wounding him many times with his teeth or horns, whereby he putteth him to cruel torments, and leaveth him not till he be dead.

And when they invade or ſet upon a man, they ſpread forth their broad ears, (which are faſhioned like the winges of Oſtriches) as the ſails of a ſhip, and drawing up their trunck under their teeth their noſes ſtand forth like the beak of ſome ſhip, and ſo ruſh they with unreſiſtible violence upon the weak bodies of men, overturning them in no other ſort, then a mighty great Hulk or man of war, the little Oares or Whirries in the Sea.

And as the Trumpets in war give the ſignes of fighting, ſo do theſe ſend forth ſuch terrible yelling and roaring clamors, as bringeth no mean aſtoniſhment to his perſecutors: beſide the lamentable and mournful voices of men, by them wounded and fallen to the earth; ſome having their knees and bones broken, other their eyes trod out of their head, other their noſes preſſed flat to their faces, and their whole viſages ſo disfigured and disfavoured in a moment, that their neereſt friends, kindred and acquaintance cannot know them. Theſe alſo fil the ſpacious air with direful cries, that are heard a great way off, into the Towns and Cities adjoyning, having no other means to eſcape out of the way, and from the teeth of the beaſt, except he ſtrike his tooth into ſome root and there it ſtick faſt untill the poor overthrown man can creep aſide and ſave himſelf by flight.

In this conflict, ſometime the Elephants, and ſometimes men are the conquerors, by bringing upon the beaſts divers terrors and manacles, out of which they are not very eaſily delivered: for men alſo have their trumpets, and ſo make the woods and fields ring with them, the ratling of their Armour and Shields, and their own howling and whooping, kindling fires on the earth, caſting both fire-brands and burning Torches into the face of the Elephant, by all which the huge beaſt is not a little diſgraced and terrified. So that being bereft of their wits, they turn back and run into the ditch which they ſo carefully avoided before.

But if their rage proceed undeterred, and men be forced to yeeld unto them, forth they go into the woods, making the trees to bend unto them as a Dog or an Ox doth the ſtanding corn at harveſt: breaking off their tops and branches, which hinder their courſe and flight, as another beaſt would crop off the ears of corn; but where they are taller then the woods, there they ſtrain every joynt and member in them to get ground and overgo their Hunters; which they may perform and attain more eaſily, becauſe of their cuſtomary aboad in thoſe places: and when they are eſcaped out of the ſight of their followers, and make account that they are freed from further perſecution, then caſt they off all fear, and compound their diſtracted ſenſes into a remembrance of meat, and ſo gather their food from Palms, Trees or buſhes; afterward betaking themſelves to reſt and quietneſs.

But if their Hunters come again into their ſight, they alſo again take them to their heels, untill they have gotten more ground from them, and then they reſt again; and if the Sun decline, and light of day fail the Hunters, and darkneſs make an end of the chaſe; then do they compaſſe in the beaſts way, and ſet the wood a fire, (for Elephants fear fire as much as Lions:) So that by all this it appeareth, that the fabulous tales of *Gabinius* the *Roman* writer of Elephants, are not to be believed, when he affirmeth, that Elephants will fight againſt and reſiſt the violence of fire.

The *Troglodytæ* hunt and take Elephants after another manner, for they climbe up into the trees, and there ſit till the flocks of Elephants paſſe by, and upon the laſt, the Watch-man ſuddenly leapeth (with great courage) taking hold upon his tail and ſo ſliding down to his legs, and with a ſharp Axe which he hath hanging at his back cutteth the nerves and ſinews of his legs with ſo great celerity, that the beaſt cannot turn about to relieve it ſelf, before ſhe be wounded and made unable to revenge her harm, or prevent her taking: and ſometimes ſhe falleth down on the wounded ſide, and cruſheth the Hunter watch-man to death, or elſe with her force in running, daſheth out his brains againſt a tree.

Pliny.

Strabo.

Other wayes of taking Elephants.

The Elephant-eaters (called *Elephantophagi*) do obſerve the like policy, for by ſtealth and ſecretly they ſet upon the hindmoſt, or elſe the wandring ſolitary Elephant, and cut his ſinews, which cauſeth the beaſt to fall down, whom preſently they behead, and afterward they eat the hinder parts of this beaſt ſo caſt down and taken.

Other among the aforeſaid *Troglodytæ*, uſe a more eaſie, cunning and leſſe perillous kinde of taking Elephants; for they ſet on the ground very ſtrong charged bent-bowes, which are kept by many of their ſtrongeſt young men, and ſo when the flocks of Elephants paſſe by, they ſhoot their ſharp arrowes dipped in the gall of Serpents, and wound ſome one of them, and follow him by the bloud, untill he be unable to make reſiſtance. There are three at every bow, two which hold it, and one that draweth the ſtring. Other again, watch the trees whereunto the beaſt leaneth when he ſleepeth, neer ſome waters, and the ſame they cut half aſunder, whereunto when he declineth his body, the tree is overturned and the beaſt alſo, and being unable to riſe again becauſe of the ſhort nerves and no flexions in his legs, there he lyeth till the Watch-man come and cut off his head.

Ariſtotle deſcribeth another manner of taking Elephants in this ſort; The Hunter (ſaith he) getteth up upon a tamed Elephant, and followeth the wilde one till he have overtaken it, then commandeth he the tame beaſt to ſtrike the other, and ſo continueth chaſing and beating him, till he have wearyed him and broken his untameable nature. Then doth the rider leap upon the wearyed and tyred Elephant, and with a ſharp pointed Sickle doth govern him after the tame one, and ſo in ſhort ſpace he groweth gentle. And ſome of them when the rider alighteth from their backs, grow wilde and fierce again; for which cauſe they binde their forelegs with ſtrong bands, and by this means they take both great and ſmall, old and young ones; but as the old ones are more wilde and obſtinate, and ſo difficult to be taken, ſo the younger keep ſo much with the elder, that a like impoſſibility or difficulty interpoſeth it ſelf from apprehending them.

Gillius.

In the *Caſpian* lake, there are certain fiſhes (called *Oxyrinchi* out of whom is made ſuch a firme glew, that it will not be diſſolved in ten dayes after it hath taken hold, for which cauſe they uſe it in the taking of Elephants.

There are in the Iſland *Zeira* many Elephants, whom they take on this manner: In the Mountains they make certain cloyſters in the earth, having two great trees ſtanding at the mouth of the cloyſters, and in thoſe trees they hang up a great par-cullis gate, within that cloyſter they place a tame female Elephant at the time of their uſual copulation: the wilde Elephants do ſpeedily wind her, and make to her, and ſo at the laſt having found the way betwixt the two trees, enter into her; ſometime twenty, and ſometime thirty at a time: then are there two men in the ſaid trees, which cut the rope whereby the gate hangeth, ſo it falleth down and includeth the Elephants, where they ſuffer them alone for ſix or ſeven dayes without meat, whereby they are ſo infeebled and famiſhed, that they are not able to ſtand upon their legs.

Then two or three ſtrong men enter in among them, and with great ſtaves and clubs, belabour and cudgel them, till by that means they grow tame, and gentle; and although an Elephant be a monſtrous great beaſt and very ſubtil, yet by theſe and ſuch like means do the inhabitants of *India* and *Ethiopia*, take many of them with a very ſmall labour to their great advantage.

The ſubtilty of Elephants againſt their hunters.

Againſt theſe ſleights of men, may be opoſed the ſubtil and cautelous evaſions of the beaſt, avoiding all the footſteps of men, if they ſmell them upon any herb or leaf, and for their fight with the Hunters, they obſerve this order. Firſt of all, they ſet them foremoſt which have the leaſt teeth, that ſo they may not be afraid of combate, and when they are weary, by breaking down of trees they eſcape and flie away. But for their hunting, they know that they are not hunted in *India* for no other cauſe, then for their teeth, and therefore to diſcourage the Hunters, they ſet them which have the worſt teeth before, and reſerve the ſtrongeſt for the ſecond encounter: for their wiſdom or natural diſcretion is herein to be admired, that they will ſo diſpoſe themſelves in all their battails when they are in chaſe, that ever they fight by courſe, and incloſe the youngeſt from perill, ſo that lying under the belly of their Dams they can ſcarce be ſeen: and when one of them flyeth they all flie away, to their uſual reſting places, ſtriving which of them ſhall go foremoſt: And if at any time they come to a wide and deep Ditch, which they cannot paſſe over without a bridge, then one of them deſcendeth, and goeth down into the Ditch, and ſtandeth tranſverſe or croſſe the ſame, by his great body filling up the empty parts, and the reſidue paſſe over upon his back as upon a bridge.

Afterward when they are all over, they tarry and help their fellow out of the Ditch or Trench again, by this ſleight or deviſe, one of them putteth down to him his leg, and the other in the Ditch windeth his trunck about the ſame, the reſidue ſtanders by caſt in bundles of ſprigs with their mouthes, which the Elephant warily and ſpeedily putteth under his feet, and ſo raiſeth himſelf out of the Trench again, and departeth with his fellowes.

Ælianus.
Tzetzes.
Plutarch.

But if they fall in and cannot finde any help or means to come forth, they lay aſide their natural wilde diſpoſition, and are contented to take meat and drink at the hands of men, whoſe preſence before they abhorred; and being delivered they think no more upon their former condition, but in forgetfulneſs thereof, remain obedient to their deliverers.

The art of taming Elephants.
Ælianus.

Being thus taken, as it hath been ſaid, it is alſo expedient to expreſs by what art and means they are cicuratted and tamed. Firſt of all therefore when they are taken, they are faſtened to ſome Tree or Pillar in the earth, ſo as they can neither kick backward nor leap forward, and there hunger, thirſt, and famine, like two moſt ſtrong and forcible Riders abate their natural wildeneſs, ſtrength, fear and hatred of men: Afterward when their keepers perceive by their dejection of minde, that they begin to be mollified and altered, then they give unto them meat out of their hands, upon whom the beaſt doth caſt a far more favorable and cheerful eye, conſidering their own bondage, and ſo at the laſt neceſſity frameth them unto a contented and tractable courſe and inclination.

But the *Indians* by great labour and induſtry take their young Calves at their watering places, and ſo lead them away, inticing them by many allurements of meat to love and obey them, ſo as they grow to underſtand the *Indian* language, but the elder *Indian* Elephants do very hardly and ſeldom grow tame, becauſe of their remembrance of their former liberty, by any bands and oppreſſion; nevertheleſs by inſtrumental muſick, joyned with ſome of their Countrey ſongs and ditties, they abate their fierceneſs, and bring down their high untractable ſtomachs, ſo as without all bands they remain quiet, peaceable and obedient, taking their meat which is layed before them.

Pliny and *Solinus* preſcribe the juyce of Barly to be given to them for their mitification, whereunto alſo agreeth *Dioſcorides* (calling that kind of drink *Zythus*) and the reaſon hereof is, becauſe of the tart ſharpneſs in Barly water if it ſtand a little while; and therefore alſo they preſcribe Vinegar and aſhes to rub the beaſts mouth, for it hath power in it to pierce ſtones, all ſharp things penetrate deep into his fleſh, and alter his nature; the invention whereof is attributed to *Democritus*.

Plutarch.

Being thus tamed, they grow into civill and familiar uſes, for *Cæſar* aſcended into the *Capitol* betwixt four hundred Elephants, carrying at either ſide burning Torches, and *Heliogabalus* brought four Waggons drawn with Elephants in *Vaticanum*, and men commonly ride upon them, for *Apollonius* ſaw neer the River *Indus*, a Boy of thirteen year old riding alone upon an Elephant, ſpurring and pricking him as freely as any man will do a lean horſe.

Philoſtratus.

The taking up of their riders.
Vartomannus.
Gillius.
Nearchus.
Strabo.
Elephants for the plow.

They are taught to bend one of their hinder legs to take up the Rider, who alſo muſt receive help from ſome other preſent ſtanders by, or elſe it is impoſſible to mount on the back of ſo high a Palfrey. They which are not accuſtomed to ride upon theſe beaſts, are affected with vomiting and caſting, like men when they firſt of all take the Sea. They are ruled without bridle or rains, only by a long crooked piece of wood bending like a Sickle, and nailed with ſharp nails, no man can ſit more ſafely and more ſoftly upon a Horſe or Mule then they do which ride upon the Elephants. The *Indians* with their leſſer Elephants (which they call baſtard Elephants) plow their ground and corn.

The price of Elephants.

The common price of Elephants is at the leaſt five hundred Nobles, and ſometimes two thouſand. The *Indian* women are moſt chaſt and continent, yet for an Elephant they take a great pride to be hired for whores, for they imagine that the fame and received opinion of their beauty doth countervail and cover the ſhameful loſſe of their honeſty (as *Arrianus* writeth in his book of *Indians*.)

Their obedience and tractable gentleneſs.

Since the time that Elephants have been tamed, their natures and diſpoſitions have been the better obſerved and diſcovered; for they willingly obey their keepers, learning all feats of Armes, to take up ſtones and caſt them, and to ſwim; ſo that *Strabo* affirmeth, there was no poſſeſſion or wealth comparable to a Chariot or Waggon of Elephants.

Pliny. Their learning in letters.

Mutianus which was thrice Conſul, affirmed to *Pliny*, that he ſaw an Elephant which learned the *Greek* letters, and was able with his tongue to write theſe words, *Autos egoo Tadegrapſa laphura te kelt' anetheca*; that is, I wrote theſe things and dedicated the *Celtican* ſpoils: but in theſe actions of writing, the hand of the teacher muſt be alſo preſent to teach him how to frame the letters, and then, as *Ælianus* ſaith, they will write upon Tables, and follow the true proportion of the Characters expreſſed before their face, whereupon they look as attentively as any *Grammarian*. In *India* they are taught many ſports, as to Dance and leap, which cauſed *Martial* to write thus;

Turpes eſſeda quod trahunt biſontes,
Et molles dare juſſa quod choreas
Nigro bellua nil legat magiſtro,
Quis ſpectacula non putet deorum?

When the Prizes of *Germanicus Ceſar* were played, there were many Elephants which acted ſtrange feats or parts, four of them went upon Ropes and over the Tables of meat, whereon they ſet their feet ſo warily that they never touched any of the gheſts, the boardes or ſtanding cups being fully furniſhed. And alſo they learned to dance after Pipes by meaſure, ſometime dancing ſoftly, and ſometime apace, and then again leaping upright, according to the number ſung or played upon the inſtrument; and they are apt to learn, remember, meditate, and conceive ſuch things as a man can hardly perform.

Their induſtrious care to perform the things they are taught, appeareth herein, becauſe when they are ſecret and alone by themſelves, they will practiſe leaping, dancing, and other ſtrange feats, which they could not learn ſuddenly in the preſence of their Maſters: as *Pliny* affirmeth for certain truth of an Elephant which was dull and hard of underſtanding, his keeper found him in the night practiſing thoſe things which he had taught him with many ſtripes the day before, and could not prevail by reaſon of the beaſts ſlow conceit.

Plutarch.

There was an Elephant playing upon a Cymbal, and others of his fellowes dancing about him, for there was faſtened to either of both of his forelegs one Cymbal, and another hanged to his trunck, the beaſt would obſerve juſt time, and ſtrike upon one, and then the other, to the admiration of all the beholders. There was a certain banquet prepared for Elephants upon a low bed in a parlour ſet with divers diſhes and pots of Wine, whereinto were admitted twelve, ſix males, apparelled like men, and ſix females apparelled like women: when they ſaw it, they ſat down with great modeſty, taking here and there like diſcreet temperate gheſts, neither ravening upon one diſh or other, and when they ſhould drink, they took the cup receiving in the liquor very mannerly, and for ſport and feſtivity would through their truncks ſquirt or caſt a little of their drink upon their attendants; ſo that this beaſt is not only of an admirable greatneſs, but of a more wonderful meekneſs and docibility.

Ælianus.

Ariſtotle. The reverence of Elephants to Kings.

They are ſaid to diſcern betwixt Kings and common perſons, for they adore and bend unto them, pointing to their Crowns, which cauſed *Martial* to write this *Tetraſtichon*;

Quod pius & ſupplex Elephas te Cæſar odorat,
Hic modo qui tauro tam metuendus erat,
Non facit hoc juſſus, nulloque docente magiſtro:
Crede mihi, numen ſentit & ille tuum.

Three kinds of Elephants.

The King of *Indians* was watched with four and twenty Elephants, who were taught to forbear ſleep, and to come in their turns at certain hours, and ſo were they moſt faithful, careful and invincible. And as there be of them three kinds, the *Paluſtrians* or Mariſhie Elephants are hair-brained and inconſtant, the Elephants of the Mountains are ſubtil and evill natured, lying in wait to deſtroy and devoure, but the *Campeſtrial* Elephants are meek, gentle, docible, and apt to imitate men. In theſe is the underſtanding of their Countrey language, of obedience to Princes, government, and offices; the love and pleaſure of glory and praiſe: and alſo that which is not alway in men; namely, equity, wiſdom, and probity.

The religion of Elephants.

Pliny.

Solinus.

Ælianus.

They have alſo a kind of Religion, for they worſhip, reverence, and obſerve the courſe of the Sun, Moon, and Stars; for when the Moon ſhineth, they go to the Waters wherein ſhe is apparent; and when the Sun ariſeth they ſalute and reverence his face: and it is obſerved in *Ethiopia*, that when the Moon is changed untill her prime and appearance, theſe beaſts by a ſecret motion of nature, take boughs from off the trees they feed upon, and firſt of all lift them up to heaven, and then look upon the Moon, which they do many times together, as it were in ſupplication to her. In like manner they reverence the Sun riſing, holding up their trunck or hand to heaven, in congratulation of her riſing.

Elephants ſacrificed, and what followed thereupon.

Iuba was wont to ſay, that this beaſt was acceptable to thoſe Gods which ruled Sea and Land, becauſe of their reverence to Sun and Moon, and therefore *Ptolomeus Philopator*, offered four Elephants in a ſacrifice (to recover the quietneſs of his minde) thinking that the Gods would have been well pleaſed therewith, but finding that his fearful dreams and viſions departed not from him, but rather his diſquietneſs increaſed, fearing that the gods were angry with him for that action, he made four Elephants of Braſs, and dedicated them to the Sun, that ſo by this deed he might purchaſe pardon for the former offence.

Ælianus.
Plutarch.

This Religion of theirs, alſo appeareth before their death, for when they feel any mortal wounds, or other natural ſignes of their later end, either they take up the duſt, or elſe ſome green herb, and lift it up to Heaven in token of their innocency and imploration of their own weakneſs: and in like manner do they when they eat any herb by natural inſtinct to cure their diſeaſes: firſt they lift it up to the Heavens (as it were to pray for a divine bleſſing upon it) and then devoure it.

Tzetzes.
Plinius.
Ælianus.

I cannot omit their care, to bury and cover the dead carkaſes of their companions, or any other of their kinde; for finding them dead, they paſs not by them till they have lamented their common miſery, by caſting duſt and earth on them, and alſo green boughs, in token of ſacrifice, holding it execrable to do otherwiſe: and they know by a natural inſtinct ſome aſſured fore-tokens of their own death. Beſides when they wax old and unfit to gather their own meat, or fight for themſelves, the younger of them feed, nouriſh, and defend them, yea they raiſe them out of Ditches and Trenches into which they are fallen, exempting them from all labour and perill, and interpoſing their own bodies for their protection: neither do they forſake them in ſickneſs, or in their wounds, but ſtand to them, pulling out Darts of their bodies, and helping both like skilful Chirurgions to cure wounds, and alſo like faithful friends to ſupply their wants.

Tzetzes.

Again, how much they love their young, which is a natural part, of religion we have ſhewed before. *Antipater* ſuppoſeth that they have a kinde of divination or divine underſtanding of law and equity, for when King *Bocchus* had condemned thirty men to be torn and trod in pieces by Elephants, and tying them hand and foot to blocks or pieces of wood, caſt them among thirty Elephants, his ſervants and Officers could not by all their wit, skill, or provocation, make the Beaſts touch one of them: ſo that it was apparent, they ſcorned and diſdained to ſerve any mans cruel diſpoſition, or to be the miniſters of tyranny and murther. They moreover have not only an obſervation of chaſtity among themſelves, but alſo are revengers of whoredom and adulterers in other, as may appear by theſe examples in Hiſtory.

Plinius.
Their underſtanding of juſtice and equity.

Ælianus.

A certaian Elephant ſeeing his Maſter abſent, and another man in bed with his Miſtreſs, he went unto the bed and ſlew them both. The like was done at *Rome*, where the Elephant having ſlain both the adulterer and adultereſs, he covered them with the bed-clothes untill his Keeper returned home, and then by ſignes drew him into his lodging place, where he uncovered the Adulterers, and ſhewed him his bloudy tooth that took revenge upon them both for ſuch a villany: whereat the Maſter wondering, was the more pacified, becauſe of the manifeſt-committed iniquity. And not only thus deal they againſt the woman, but they alſo ſpare not to revenge the adultery of men; yea of their own Keeper: for there was a rich man which had marryed a wife not very amiable or lovely, but like himſelf for wealth, riches, and poſſeſſions, which he having gained, firſt of all ſet his heart to love another, more fitting his luſtful fancy, and being deſirous to marry her, ſtrangled his rich ill-favoured Wife, and buryed her not far from the Elephants ſtable, and ſo marryed with the other, and brought her home to his houſe: the Elephant abhorring ſuch deteſtable murther, brought the new marryed Wife to the place where the other was buryed; and with his teeth digged up the ground and ſhewed her the naked body of her predeceſſor, intimating thereby unto her ſecretly, how unworthily ſhe had marryed with a man, murtherer of his former wife.

The revenge of adulteries by Elephants.

Their love and concord with all mankinde is moſt notorious, eſpecially to their Keepers and Women: for if through wrath they be incenſed againſt their Keepers, they kill them, and afterward by way of repentance, they conſume themſelves with mourning: And for the manifeſting of this point *Arrianus* telleth a notable ſtory of an *Indian*, who had brought up from a foal a white Elephant, both loving it, and being beloved of it again, he was thereupon carryed with great admiration. The King hearing of this white Elephant, ſent unto the man for it, requiring it to be given to him for a preſent, whereat the man was much grieved, that another man ſhould poſſeſs that which he had ſo tenderly educated and loved, fitting him to his bow and purpoſes, and therefore like a rival in his Elephants love, reſolved to deny the King, and to ſhift for himſelf in ſome other place: whereupon he fled into a Deſert region with his Elephant, and the King underſtanding thereof, grew offended with him, ſent meſſengers after him to take away the Elephant, and withal to bring the man back again, to receive puniſhment for his contempt.

Their love to their keepers and all men that harm them not.

When they came to the place where he remained, and began to take order for their apprehenſion, the man aſcended into a ſteep place, and there kept the Kings meſſengers off from him by caſting of ſtones, and ſo alſo did the Beaſt, like as one that had received ſome injury by them, at laſt, they got neer the *Indian*, and caſt him down, but the Elephant made upon them, killing ſome of them, and defending his Maſter and nouriſher, put the reſidue to flight, and then taking up his Maſter with his trunk, carryed him ſafe into his lodging, which thing is worthy to be remembred, as a noble underſtanding part both of a loving friend and faithful ſervant.

The like may be ſaid of the Elephant of *Porus*, carrying his wounded Maſter the King in the battel he fought with *Alexander*, for the Beaſt drew the Darts gently out of his Maſters body without all pain, and did not caſt him untill he perceived him to be dead, and without bloud and breath, and then did firſt of all bend his own body as near the earth as he could, that if his Maſter had any life

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Their love to their Keepers and all men that harm them not.

left in him, he might not receive any harm in his alighting or falling down. Generally, as is already ſaid, they love all men after they be tamed, for if they meet a man erring out of his way, they gently bring him into the right again, yet being wilde are they afraid of the foot-ſteps of men if they winde their treadings before they ſee their perſons, and when they finde an herb that yeeldeth a ſuſpicion of a mans preſence, they ſmell thereunto one by one; and if all agree in one ſavour, the laſt Beaſt lifteth up his voyce and cryeth out for a token and watch-word to make them all fly away.

Cicero affirmeth that they come ſo near to a mans diſpoſition, that their ſmall Company or Nation ſeemeth to over-go or equall moſt men in ſenſe and underſtanding.

Their love of beautiful women.

Plutarch.

At the ſight of a beautiful woman they leave off all rage and grow meek and gentle; and therefore *Ælianus* ſaith, that there was an Elephant in *Egypt*, which was in love with a woman that ſold Corrals, the ſelf ſame woman was wooed by *Ariſtophanes*; and therefore it was not likely, that ſhe was choſen of the Elephant without ſingular admiration of her beauty, wherein *Ariſtophanes* might ſay as never man could; that he had an Elephant for his rivall; and this alſo did the Elephant manifeſt unto the man: for on a day in the market, he brought her certain Apples, and put them into her boſom, holding his trunk a great while therein, handling and playing with her breaſts. Another likewiſe loved a *Syrian* woman, with whoſe aſpect he was ſuddenly taken, and in admiration of her face ſtroked the ſame with his trunk, with teſtification of farther love: the Woman likewiſe failed not to frame for the Elephant amorous devices with Beads and Corrals, Silver, and ſuch things as are grateful to theſe brute Beaſts, ſo ſhe enjoyed his labour and dilgence to her great profit, and he her love and kindeneſs without all offence to his contentment, which cauſed *Horat.* to write this verſe:

Quid tibi vis mulier nigris digniſſima barris?

At laſt, the woman dyed, whom the Elephant miſſing, like a lover diſtracted betwixt love and ſorrow fell beſide himſelf and ſo periſhed. Neither ought any man to marvel at ſuch a paſſion in this Beaſt, who hath ſuch a memory as is attributed unto him, and underſtanding of his charge and buſineſs,as may appear by manifold examples: for *Antipater* affirmeth that he ſaw an Elephant that knew again, and took acquaintaince of his Maſter which had nouriſhed him in his youth,after many years abſence.

Their revenge of harms and obſervation of the meaſure of their meat.

When they are hurt by any man, they ſeldom forget a revenge, and ſo alſo they remember on the contrary to recompenſe all benefits, as it hath been manifeſted already. They obſerve things done both in weight and meaſure, eſpecially in their own meat. *Agnon* writeth that an Elephant was kept in a great mans houſe in *Syria*, having a man appointed to be his Overſeer, who did dayly defraud the Beaſt of his allowance: but on a day as his Maſter looked on, he brought the whole meaſure and gave it to him: the Beaſt ſeeing the ſame, and remembring how he had ſerved him in times times paſt, in the preſence of his Maſter exactly divided the Corn into two parts, and ſo laid one of them aſide: by this fact ſhewing the fraud of the ſervant to his Maſter. The like ſtory is related by *Plutarch* and *Ælianus*, of another Elephant, diſcovering to his Maſter the falſhood and privy theft of an unjuſt ſervant.

Strabo.

Gillius.

About *Lycha* in *Africk* there are certain ſprings of water, which if at any time they dry up, by the teeth of Elephants they are opened and recovered again. They are moſt gentle and meek, never fighting or ſtriking Man or Beaſt, except they be provoked, and then being angred, they will take up a man in their trunk and caſt him into the air like an arrow,ſo as many times he is dead before he come to the ground. *Plutarch* affirmeth, that in *Rome*, a boy pricking the trunck of an Elephant with a goad,the Beaſt caught him,and lift him up into the air to ſhoot him away and kill him: but the people and ſtanders by ſeeing it, made ſo great a noiſe and cry thereat, that the Beaſt ſet him down again fair and ſoftly without any harm to him at all; as if he thought it ſufficient to have put him in fear of ſuch a death.

Gillius.
Philoſtratus.
Their mourning in ſecret.
Ariſtotle.
The length of their life.

In the night time they ſeem to lament with ſighs and tears their captivity and bondage, but if any come to that ſpeed, like unto modeſt perſons they refrain ſuddenly, and are aſhmed to be found either murmuring or ſorrowing. They live to a long age, even to 200 or 300 years; if ſickneſs or wounds prevent not their life: and ſome but to a 120 years; they are in their beſt ſtrength of body at threeſcore, for then beginneth their youth.

Arrianus.
Ælianus.

Iuba King of *Lybia* writeth, that he hath ſeen tame Elephants which have deſcended from the Father to the ſon, (by way of inheritance) many generations: and that *Ptolemæus Philadelphus* had an Elephant, which continued alive many Ages, and another of *Seleucus Nicanor*, which remained alive to the laſt overthrow of all the *Antiochi*.

The Inhabitants of *Taxila* in *India* affirm, that they had an Elephant at the leaſt three hundred and fifty years old, for they ſaid it was the ſame that fought ſo faithfully with *Alexander* for King *Porus*, for which cauſe *Alexander* cald him *Aiax*, and did afterward dedicate him to the Sun, and put certain golden chains about his teeth with this inſcription upon them: *Alexander filius Iovis Aiacem Soli*: *Alexander* the ſon of *Iupiter* conſecrateth this *Aiax* to the *Sun*. The like ſtory is related by *Iuba*, concerning the age of an Elephant, which had the impreſſion of a Tower on his teeth and was taken in *Atlas* 400 years after the ſame was engraven.

Of the eating Elephants.
Strabo.

There are certain people in the world which eat Elephants, and are therefore called of the *Nomades* (*Elephantophagi*) Elephant-eaters, as is already declared: there are of theſe which dwell in

Daraba, neer the Wood *Eumenes*, beyond the City *Saba*, where there is a place (called the hunting of Elephants. The *Troglodytæ* live alſo hereupon, the people of *Africk* cald *Aſachæ*, which live in Mountains, do likewiſe eat the fleſh of Elephants, and the *Adiabaræ* or *Megabari*. The *Nomades* have Cities running upon Charriots, and the people next under their Territory, cut Elephants in pieces, and both ſell and eat them.

Pliny.
Solinus.

Some uſe the hard fleſh of the back, and other commend above all the delicates of the world the reins of the Elephants; ſo that it is a wonder that *Ælianus* would write, that there was nothing in an Elephant good for meat, except the trunck, the lips, and the marrow of his horns, or teeth. The skin of this Beaſt is exceeding hard, not to be pierced by any dart; whereupon came the Proverb, *Culicem haud curat Elephas Indicus*, the *Indian* Elephant careth not for the biting of a Gnat, to ſignifie a ſufficient ability to reſiſt all evill, and that Noble mindes muſt not revenge ſmall injuries.

Vartomannus.

It cannot be but in ſuch huge and vaſt bodies there ſhould alſo be nouriſhed ſome diſeaſes, and that many (as *Strabo* ſaith) wherefore firſt of all there is no creature in the world leſs able to endure cold or Winter, for their impatiency of cold bringeth inflamation. Alſo in Summer, when the ſame is hotteſt, they cool one another by caſting durty and filthy water upon each other, or elſe run into the rougheſt Woods of greateſt ſhadow. It hath been ſhewed already, that they devour Chamæleons, and thereof periſh, except they eat a wilde Olive.

The diſeaſes of Elephants.
Ariſtotle.
Ælianus.
Solinus.

When they ſuffer inflamation and are bound in the belly, either black Wine, or nothing will cure them. When they drink a Leach they are grievouſly pained: for their wounds by darts or otherwiſe, they are cured by Swines-fleſh, or Dittany, or by Oyl, or by the flower of the Olive. They fall mad ſometime, for which I know no other cure, but to tye them up faſt in Iron chains. When they are tyred for want of ſleep, they are recovered by rubbing their ſhoulders with Salt, Oyl and Water. Cows milk warmed and infuſed into their eyes, cureth all evils in them, and they preſently like reaſonable men acknowledge the benefit of the medicine.

The medicinal vertues in this Beaſt are by Authors obſerved to be theſe: The bloud of an Elephant and the aſhes of a Weaſil, cure the great Leproſie: and the ſame bloud is profitable againſt all Rhumatick fluxes, and the *Sciatica*. The fleſh dryed and cold, or heavy fat and cold is abominable: for if it be ſod and ſteeped in Vinegar with Fennel-ſeed, and given to a Woman with childe, it maketh her preſently ſuffer abortment. But if a man taſte thereof ſalted and ſteeped with the ſeed aforeſaid, it cureth an old cough. The fat is a good Antidote either by Ointment or Perfume: it cureth alſo the pain in the head.

The medicines in Elephants.
Marcellus.
Iſidorus.
Raſis.
Albertus.

The Ivory or tooth is cold and dry in the firſt degree, and the whole ſubſtance thereof corroborateth the heart and helpeth conception; it is often adulterated by Fiſhes and Dogs bones burnt, and by white Marble. There is a *Spodium* made of Ivory in this manner; Take a pound of Ivory cut into pieces, and put into a raw new earthen pot, covering and glewing the cover with lome round about, and ſo let it burn till the pot be throughly hardned: afterward take off the pot, and beat your Ivory into ſmall powder, and being ſo beaten, ſiſt it, then put it into a glaſs, and pour upon it two pound of diſtilled Roſe-water, and let it dry. Thirdly, beat it unto powder again, and ſiſt it the ſecond time, and put into it again ſo much Roſe-water as at the firſt, then let it dry, and put thereunto as much Camphire as will ly upon three or four ſingle Groats, and work it all together upon a Marble ſtone into little Cakes, and ſo lay them up where the air may not corrupt [illegible] them. The vertue hereof is very pretious againſt ſpitting of bloud, and the Bloudy-flix; and alſo it is given for refrigeration without danger of binding or aſtriction.

After a man is delivered from the Lethargy, Peſtilence, or ſudden forgetfulneſs, let him be purged and take the powder of Ivory and *Hiera-*[illegible], drunk out of ſweet water: This powder with Hony-Attick, taketh away the ſpots in the face: the ſame with wilde Mints drunk with water, reſiſteth and avoideth the Leproſie at the beginning. The powder of Ivory burnt and drunk with Goats-bloud, doth wonderfully cure all the pains, and expell the little ſtones in the reins and bladder: Combes made of Ivory are moſt wholeſome, the touching of the trunk cureth the Headach: The Liver is profitable againſt the Falling-evill, the ſame vertue hath the gall (if he have any) againſt the Falling-evill.

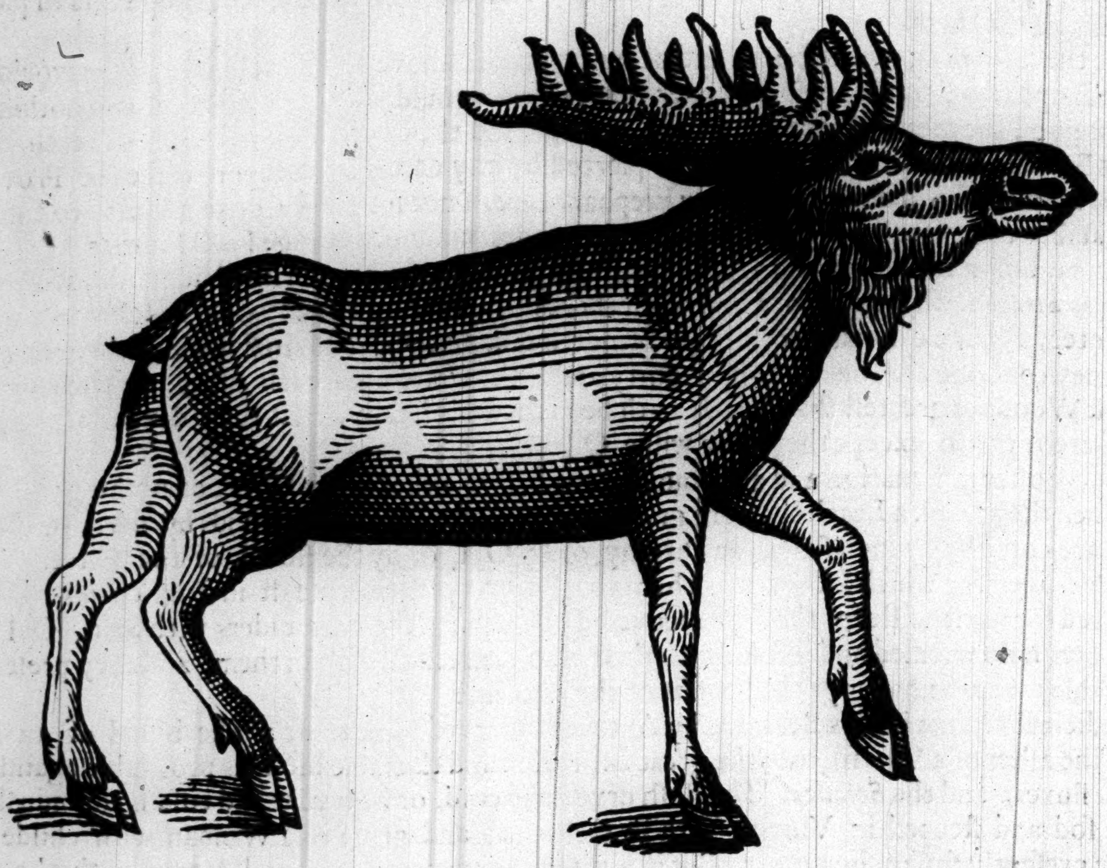
The ſame by anointing, cureth a lowſie skin, and taketh away that power which breedeth theſe vermine: the ſame perfumed eaſeth Agues, helpeth a woman in travail, and driveth Gnats or marſh-flies out of a houſe.

Of the ELK.

AS the Elphant laſt handled, could not live in any Countrey of the world, but in the hot Eaſtern, and Southern Regions; ſo the Elk on the contrary is moſt impatient of all heat, and keepeth not but in the Northern and cold Countreys: for *Polonia* and the Countreys under that Climate will not preſerve an Elk alive, as it hath been often tryed by experience: for which cauſe, they are not found but in the colder Northern Regions, as *Ruſſia*, *Pruſſia*, *Hungaria*, and *Illyria*, in the Wood *Hercynia*, and among the *Boruſſian-Scythians*, but moſt plentiful in *Scandinavia*, (which *Pauſanias* calleth the *Celtes*) for all the Ancients called the Kingdoms of *Germany*, and the North, *Celtarum Regiones*, Countreys inhabited by the *Celts*.

The place of their abode.
Bonarus baro Balizce.
Countries breeding Elks.

The Figure of the *ELK* with *Horns.*

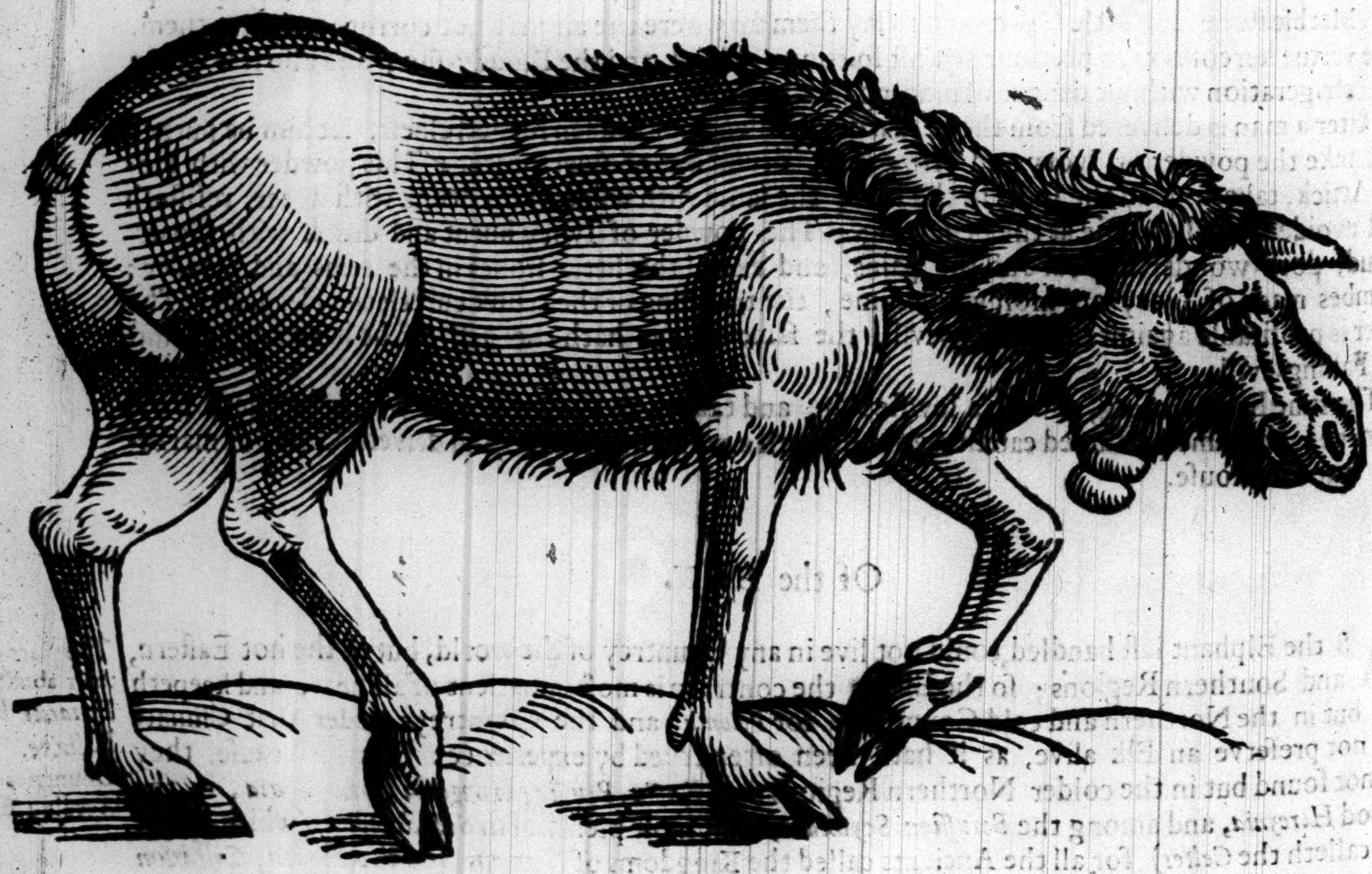


The name of this Beaſt.

An Elk the ſame that *Machlis.*

This Beaſt is called in *Greek*, *Alke*; and in *Latine*, *Alces*, or *Alce*; which was a name of one of *Actæons* Dogs in *Ovid*: the *Turks*, *Valachians*, the *Hungarians*, *Iajus*; the *Illyrians* and *Polonians*, *Los*; in the ſingular, and plurally, *Loſſie*, for many Elks. *Albertus Magnus* calleth it *Alches* and *Aloy*, and afterward *Equicervus*, a Horſe-Hart. The *Germans*, *Elch*, *Ellend*, and *Elent*, by a *Metathesis* of *Alke*, or *Alce*: and for my part I take it to be the ſame Beaſt which *Pliny* calleth *Machlis*, for there is nothing attributed to an Elk which alſo doth not belong to *Machlis*.

The *ELK* without *Horns.*



I finde

Cæſars deſcription of an Elk.

I finde not any unreconcileable difference among Authors concerning this Beaſt, except in *Cæſar*, *lib. 6.* of his Commentaries, who by the relation of other, (not by his own ſight) writeth that there are Elks in the *Hercynian* Wood, like unto Goats in their ſpotted skins, who have no horns, nor joints in their legs to bend withall, but ſleep by leaning unto trees like Elephants, becauſe when they are down on the ground, they can never riſe again. But the truth is, that they are like to Roes or Harts, becauſe Goats have no ſpotted skins, but Deer have, and there may eaſily be a ſlip from *Capres*, a Roe, to *Capra*, a Goat: and *Cæſar* himſelf confeſſeth, that the ſimilitude is in their ſpotted skins, which are not competible in Goats, but in Roes.

And whereas he writeth that they have no Horns, the error of this relator may be this, that either he had only ſeen a young one before the horns came forth, or elſe an old one, that had lately loſt his horns; and by this I ſuppoſe that the authority of *Cæſar* is ſufficiently anſwered, ſo as we may proceed to the deſcription of this Beaſt collected out of the ancient Writers, *Pauſanias*, *Vopiſcus*, *Cæſar*, and *Solinus*, *Pliny*, and the later Writers conſenting with them in all things, (excepting *Cæſar* in the two things aforeſaid) *Albertus Magnus*, *Mathæus*, *Michuanus*, *Seb. Munſter*, *Eraſmus*, *Stella*, *Iohannes*, *Bonarus*, Baron of *Balizce* a *Polonian*, *Johannes Kentmannus*, *Jo. Pontanus*, *Antonius Schnebergeius*, *Chriſtophorus Wirſungus*, and that moſt worthy learned man *Georgius Joachimus* of *Rhætia*, and *Bacron Sigiſmund*.

Of the quantity and ſtature.
Bonarus.

Pauſanias ſuppoſeth it to be a Beaſt betwixt a Hart and a Camel, and *Albertus*, betwixt a Hart and a Horſe; who therefore, as it hath been ſaid, calleth it *Equi-cervus*, a Horſe-Hart; but I rather by the horns afterward deſcribed, and by the foot which *Bonarus* had, do take and hold it to be as big every way as two Harts, and greater then a Horſe, becauſe of the labour and qualities attributed thereunto: whereunto alſo agreeth *Albertus*.

The taming of Elks and their labour.
Albertus.

In *Swedia* and *Riga* they are tamed, and put into Coaches or Charriots to draw men through great ſnows, and upon the ice in the Winter time they alſo are moſt ſwift, and will run more miles in one day, then a Horſe can at three. They were wont to be preſents for Princes, becauſe of their ſingular ſtrength and ſwiftneſs; for which cauſe *Alciatus* relateth in an emblem, the anſwer of *Alexander* to one that asked him a queſtion about celerity; whether haſte doth not alway make waſte: which *Alexander* denyed by the example of the Elk in theſe Verſes:

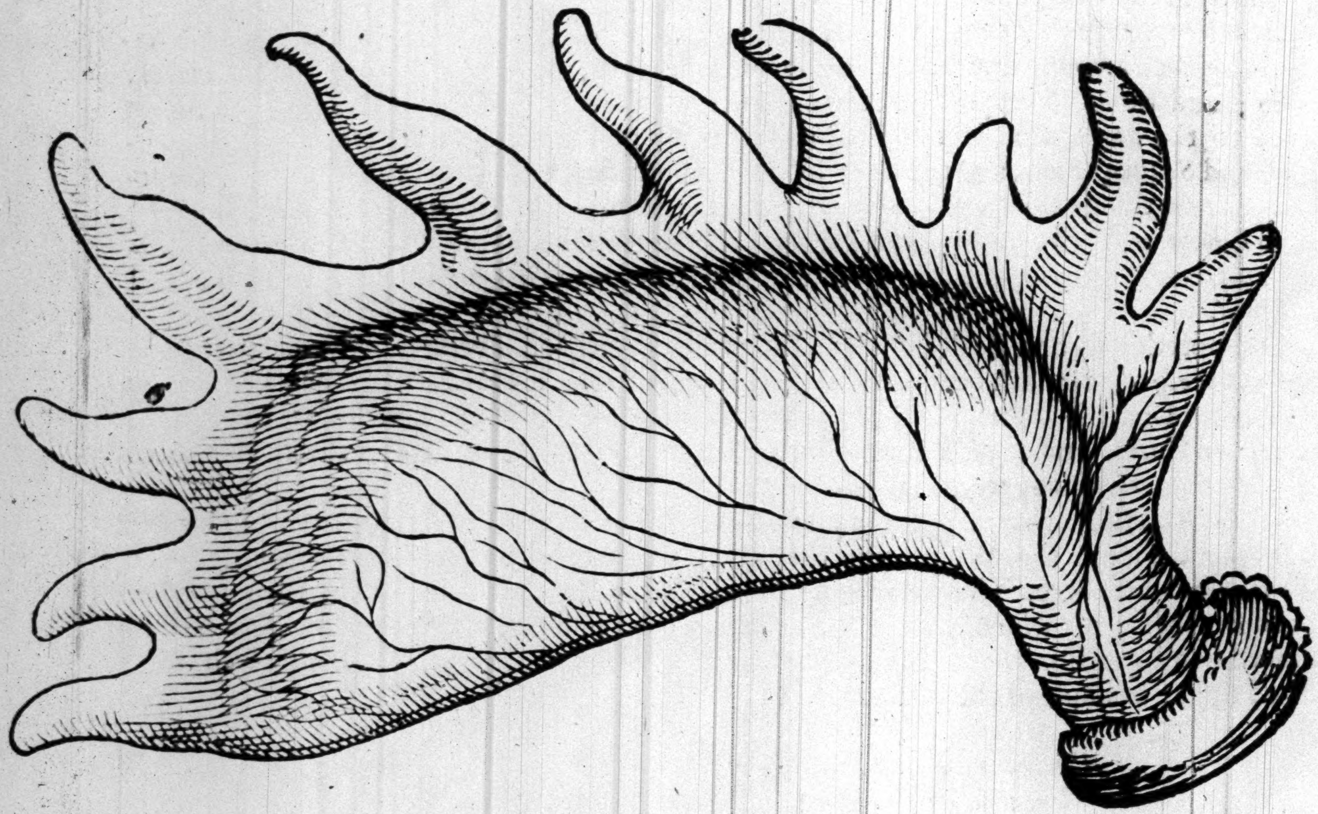
Alciatæ gentis inſignia ſuſtinet Alce,
Unguibus & [meeden] fert [anaballomenos]
Conſtat Alexandrum ſic reſpondiſſe roganti,
Qui tot obiviſſet tempore geſta brevi,
Nunquam inquit differre volens, quod & indicat Alce,
Fortior hæc dubites, ocyor anne ſiet?

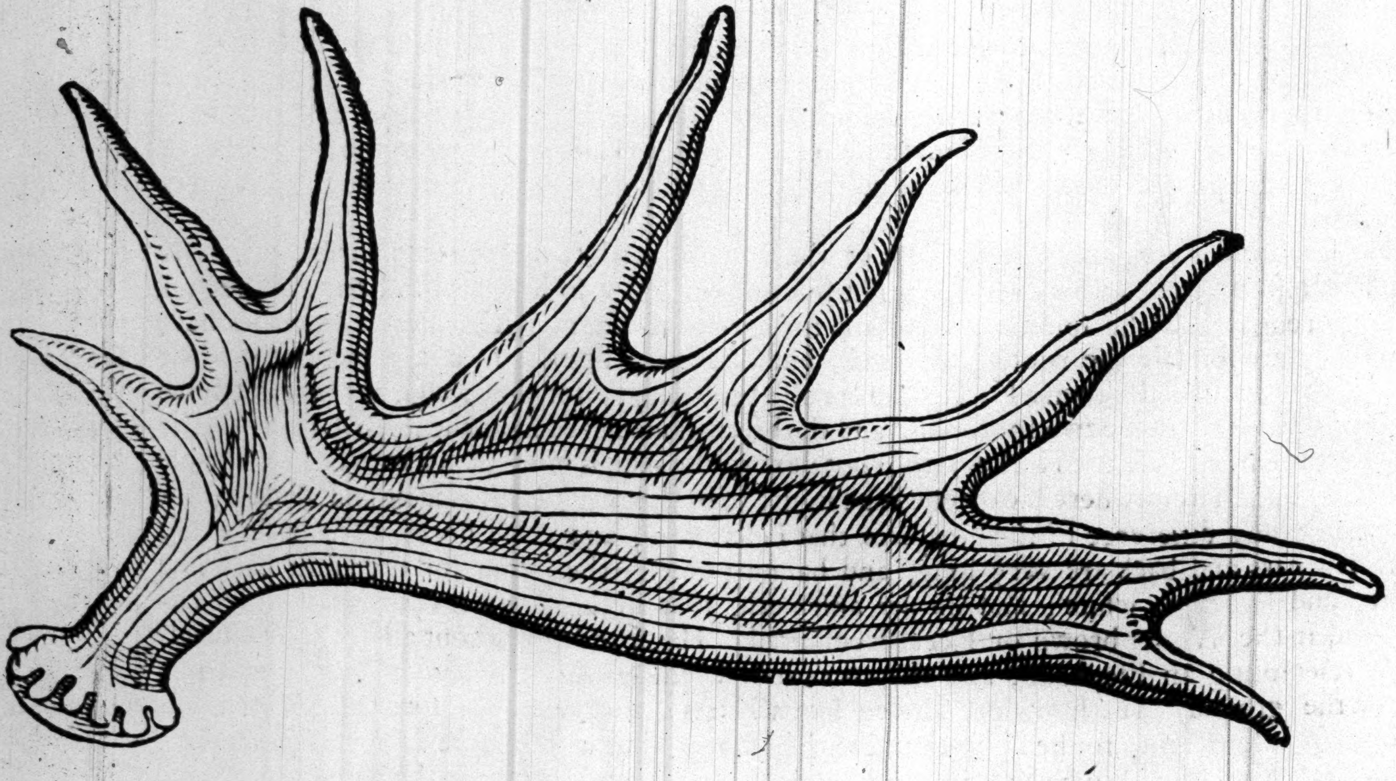
Of his parts and manner of feeding.
Pliny.

Pliny affirmeth (in my opinion) very truly that this Beaſt is like an Oxe, except in his hair, which is more like to a Hart, his upper lip is ſo great, and hangeth over the neather ſo far, that he cannot eat going forward, becauſe it doubleth under his mouth, but as he eateth he goeth backward like a Sea-crab, and ſo gathereth up the graſs that lay under his feet. His mane is divers both upon the top of his neck, and alſo underneath his throat it buncheth like a beard or curled lock of hair, howbeit, they are alway maned on the top of the neck. Their neck is very ſhort, and doth not anſwer to the proportion of the reſidue of his body, and therefore I have expreſſed both figures of the Elks.

Munſter.
Kentmannus.
Pontanus.
Sigiſmundus. Baro.
Of the colour.
The manner of their fight.
The place of his abode.
The name of this beaſt in the *German* tongue, and the true ſignification thereof.
The ſickneſs of Elks.

Their fore-head is very broad, two ſpans at the leaſt: it hath two very large horns, which we have here alſo expreſſed, both for the right ſide and the left: ſo as they bend toward the back in the plain edge, and the ſpires or pikes ſtand forward to the face: both males and females have horns, they are ſolid at the root, and round, but afterward branched, and grow out of their eye-lids, they are broader then a Harts, and are alſo very heavy, for they weigh at the leaſt twelve pounds, and are not above two foot long, and the breadth meaſured from the longeſt ſpire to the other oppoſite ſide, about ten inches: the root next to the skin, is more then a man can well griple in his hand, and therefore here is expreſſed the figure of both horns, both in male and female; for there is not any difference in their natures that I can learn, and theſe horns they loſe every year. His ears and back are very long, and hanging down, the colour for the moſt part like a Hart, and ſometime white; and *Munſter* affirmeth, that in the Summer they are of ruſſet colour, and in the Winter brown or blackiſh coloured. His fore-legs without all joynts to bend, herein reſembling an Elephant, and therefore it ſleepeth leaning to Poſts or Trees, and not lying on the ground. His hoofs are cloven like a Harts, and with the fore-feet he pierceth the Dogs that hunt him, for he fighteth not with his horns, but with his fore-legs. It is a melancholick Beaſt, and fearful to be ſeen, having an ambling pace, and keeping in the wet, watry, and marſhy places, delighting in nothing but in moiſture. The fleſh is fat and ſweet, but ingrateful to the palate, and engendereth melancholy. The *Germans* call this Beaſt *Ellend*, which in their language ſignifieth miſerable or wretched, and in truth if the report thereof be not falſe, it is in a moſt miſerable and wretched caſe, for every day throughout the year it hath the Falling-ſickneſs, and continueth in the pangs thereof, untill the hoof of his right fore-foot touch his left ear, which comes not to paſs but by the extream torments of the body, for whileſt the members are reached and ſtretched with many ſtrains and Convulſions (as it falleth out in that ſickneſs) by chance the aforeſaid foot rubbeth the ſaid ear, and immediately thereupon the Beaſt is delivered from his pangs: whereby we are to admire the works of our Creator, which having laid ſo heavy an infirmity upon this poor Beaſt, wherewith he is dayly tormented, yet hath he alſo provided a remedy for that evill in the hoof of his own foot, making the torments of the diſeaſe to be the Apothecary for applying the remedy to the place of cure.





Their fight with Wolves.

They live in heards and flocks together in *Scandivania*, and when the waters are frozen up, the wilde Mountain Wolves ſet upon them in great multitudes together, whom they receive in battel upon the Ice, fighting moſt fiercely and cruelly till one part be vanquiſhed: In the mean time the Husbandmen of the Couutry obſerve this combate, & when they ſee one ſide go to the wall, they perſecute them & take the victors part, for it is indifferent to take either the one ſide or the other; but moſt commonly the Elks are conquerers by reaſon of their fore-feet, for with them they pierce the Wolves or Dogs skins, as with any ſharp pointed Spear or Javelin.

Some have been of opinion that theſe are wilde Aſſes, but they are led hereinto with no reaſon, except becauſe they are uſed for travel and burthen as is before ſaid, for there is no proportion or reſemblance of body betwixt them: beſides, they have cloven hoofs, for the moſt part, although *Sigiſmundus Baro* affirm, that there are ſome of this kinde which have their hoofs whole and undivided. Being wilde it is a moſt fearful creature, and rather deſireth to ly hid in ſecret, then to fly, except perſued by Hunters; and there is no danger in hunting of this Beaſt, except a man come right before him, for on his ſides he may ſafely ſtrike and wound him; but if the Beaſt faſten his fore-feet on him, he cannot eſcape without death. Notwithſtanding it is a Beaſt (as hath been ſaid) as great as two Harts, yet is it above meaſure fearful, and if it receive any ſmall wound, or ſhot, inſtantly it falleth down and yeeldeth to death, as *Bonarus* hunting with *Sigiſmund* the ſecond King of *Polonia* in the Woods of *Lituania* tryed with his own hand, for with his hunting Spear he pierced one a very little way in the skin in the preſence of the King, who preſently fell down dead.

Their manner to hunt them without danger.

Their admirable fear and puſillanimity.

The ancient manner of taking Elks.

In ſome Countries of ancient time (ſaith *Pauſanias*) they took them on this manner. They having found out the field or hil where the Beaſts are lodged, they compaſs it in by the ſpace of a thouſand paces round in circle with welts and toils invented for that purpoſe, then do they draw in their nets round like a purſe, and ſo incloſe the Beaſts by multitude who commonly ſmelling his Hunters, hideth himſelf in ſome deep ditch or cave of the earth; for the nature of this Beaſt hath framed to it ſelf a moſt ſharp ſagacity, or quick ſent of ſmelling, being not herein inferiour to any of the beſt Dogs in the world, becauſe it can a great way off diſcover the Hunters, and many times while men are abroad in hunting of other Beaſts, this is ſuddenly ſtarted out of her lodging place, and ſo diſcovered, chaſed, and taken.

Other again take it by the ſame means that they take Elephants, for when they have found the trees whereunto they lean, they ſo cut and ſaw them, that when the Beaſt cometh, he overthroweth them, and falleth down with them, and ſo is taken alive.

Vopiſcus.

We read that there were Elks in the triumph of *Aurelian* at *Rome*, and in the games dedicated by *Apollo* and *Diana*, and celebrated by *Valerius Publicola*, were many Elephants, Elks, and Tygers. Likewiſe there were ten Elks at *Rome* under *Gordianus*. When they are chaſed eagerly, and can finde no place to reſt themſelves in and lie ſecret, they run to the waters, and therein ſtand, taking up water into their mouths, and within ſhort ſpace do ſo heat it, that being ſquirted or ſhot out of them upon the Dogs, the heat thereof ſo oppreſſeth and ſcaldeth them, that they dare not once approach or come nigh her any more.

Their reſiſtance in the waters.

Munſter.

The medicine in an Elk.

The greateſt vertue of medicine that I can learn or finde to be in this Beaſt, is in the hoof, for that worn in a Ring, it reſiſteth and freeth a man from the Falling evill, the Cramp, and cureth the fits or pangs, if it be put on when he is in his foming extremity: alſo ſcraped into powder and put into Wine and drunk, it is uſed in *Polonia* againſt the ſame evill. In like ſort they mingle with Triacle, and apply it to the heart, or elſe hang it about their neck for an Amulet to touch their skin againſt that diſeaſe: and becauſe that both in ancient time, and alſo now adays, this Beaſt is ſeldom ſeen, and more ſeldom taken, the hoof thereof being ſo often approved for the uſes before ſaid, the rarity (I ſay thereof) maketh it to be ſold very dear, which would be (if they could be found or taken) in more plentiful manner.

Some Mounte-banks ſell in ſtead thereof a Bugles hoof, but it may eaſily be deſcribed by ſcraping, for (it is ſaid) it ſmelleth very ſweet, whereas a Bugles ſavoureth very ill and ſtrong. It is obſerved alſo, that it hath not this vertue except it be cut off from the Beaſt while he is yet alive, and that in the months of *Auguſt* and *September*, at what time theſe Elks are moſt of all annoyed with the Falling-ſickneſs, and then it hath ſtrongeſt vertue to cure it in others.

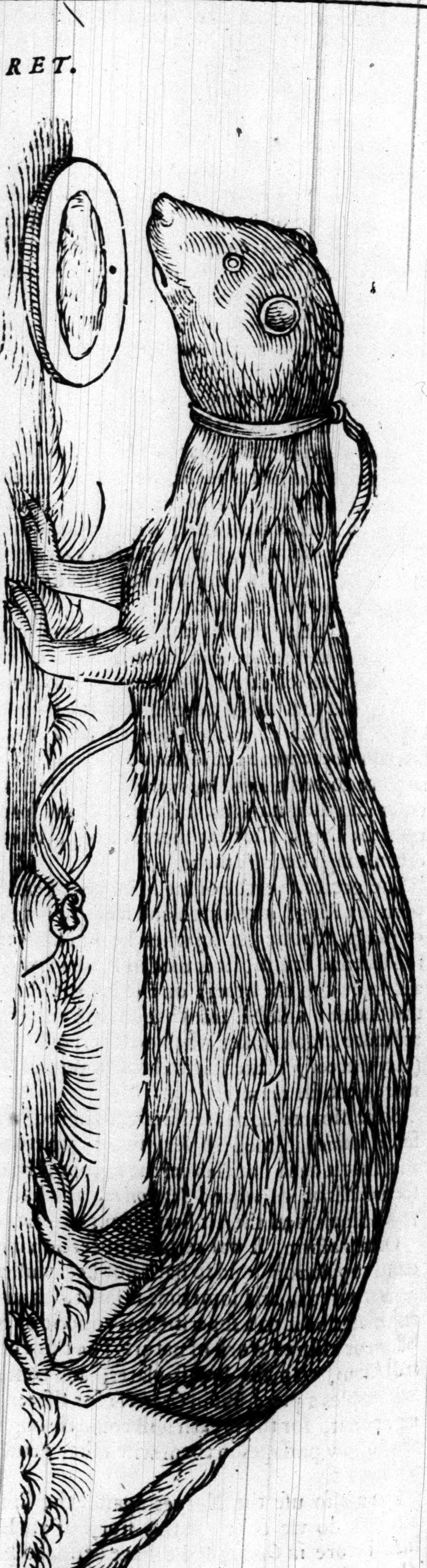
Others affirm, it wanteth his operation if it be cut off from a young one, which never taſted of carnal copulation, and ſo hath not been dulled thereby: but howſoever, this is certain, that ſometimes it cureth, and ſometime it faileth, and as there can be given no good reaſon of the cure, ſo I rather aſcribe it to a ſuperſtitious conceit or belief of the party that weareth it, rather then to any hidden or aſſured work of nature. The skins of this Beaſt are dreſſed by Tawyers, with the fat of fiſhes and Alum, to make breaſt-plates; and to ſhelter one from rain, and they ſell them for three or four Nobles a piece; but in *Cracovia* for fifteen Florens. It may be diſcerned from a Harts skin by blowing upon it, for the breath will come through like as in a Buffe, and the hairs alſo of this Beaſt have alſo hollow paſſages in them when they grow upon the back of the Beaſt, or elſe ſoon after the skin is taken off.

The uſe of their skins.

At Schnebergerus.

Some alſo uſe the Nerves againſt the Crampe, binding the offended member therewith, and herewith do we conclude this ſtory of an Elk, referring the reader to the fable of *Acida* related before in *Cacus*, if he have deſire to know it for the affinity betwixt the name thereof, and *Alces* an Elk.

Of the FERRET.



The names in *Greek.*

I Take it to be moſt true without all exception, that the *Græcians* call a Ferret *Gala Agria*, a wilde Weaſil, *Ictys* and *Phereoikos*, although *Etymologus* and *Heſychius* aſcribe the reaſon of this latter name to her lodging under Oaks and Olive-trees. *Ictys* alſo was a common name of all Weaſils, to thoſe *Græcians* which never knew or ſaw any other then one kinde of them, or as *Scaliger* againſt *Cardan* will have it to ſignifie a wilde *Campeſtrial* Weaſil, and not a tame kinde, being domeſtical and living in houſes, and that theſe differ only from one another in place and manner of living, and not in colour, ſtature or qualities. And where *Ariſtophanes* citeth it among other Beaſts which are devourers of fiſh; in my opinion there is no Beaſt that more deſireth Fiſh, then Ferrets and Cats; and for this cauſe it hath his name *Ictys quaſi Ichthus*, of eating of Fiſh; and yet I cannot conſent unto them which will have it deſcend and hunt Fiſh in the waters, like Otters or Beavers: for it abhorreth both ſwimming or diving, but neer to the waters it hunteth Fiſh, where for the moſt part being wilde it remaineth.

The etymology of *Ictys* a Ferret.

Ferrets ſwim not.

The *Latine* names.

The *Latines* call this Beaſt *Viverra*, and *Furo*, and *Furetus*, and *Furectus*, becauſe (as ſhall be afterward manifeſted) it preyeth upon Conies in their holes, and liveth upon ſtealth, and in the earth will kill a Cony ſix times as big as herſelf, but being abroad on the land, in the open air is nothing ſo wilde, ſtrong or full of courage. From *Ictys* is derived *Iltiſſus*, and the *German*, *Iltis*, for a Ferret: this is called by the *French*, *Furon*, *Furet*, and *Fuſon*, and *Fuſet*: by the *Spaniards*, *Furon*, and *Furam*, and from the *Engliſh*, *Ferret*, is the *German Fret*, derived by a common *Syncope*, and in the time of *Georgius Agricola*, it was called in *Germany*, *Furette*, and *Frettel*; and the *Engliſh* word ſeemeth alſo to be derived from *Fretta* in *Latine*, which by a like *Syncope* is contracted of *Viverra*, as to any indifferent learned man it may appear at the firſt ſight of derivation.

Their courage and nature in the earth. *Scaliger.*

Whether Ferrets be *Ictys.*

But herein ſeemeth an unreconcileable diffrence, that it is reported of the *Ictys* by *Gaza*, the intepreter of *Ariſtotle*, that it was moſt greedy of Honey, and for that cauſe it will ſeek out the Hives of Bees, and enter them without all fear of ſtings. But when *Pliny* ſpeaketh of *Ictys*, he doth not call it *Viverra*, or once attribute unto it the love of Honey, but rather the hatred and loathing thereof, in ſo high a degree, that if he taſt of it, he falleth into Conſumptions, and hardly eſcapeth death. And theſe things *Scaliger* alleadgeth againſt *Cardan*, only to prove that *Ictys* and *Viverra*, are two diſtinct Beaſts, and that *Cardan* was miſtaken in affirming, that they were but ſeveral names, expreſſing one and the ſame Beaſt.

The anſwer whereunto may be very eaſie, for although *Pliny* leaveth without rehearſal their love of Hony, it doth not neceſſarily follow, that they love it not (as *Ariſtotle* before him conſtantly affirmeth) and *Scaliger* nameth no Author, nor bringeth any reaſon to demonſtrate their hate of Honey, or any harm which inſueth them by eating thereof: and therefore againſt his authority may *Strabo* be oppoſed, who in his third Book, ſpeaking of the Conies of *Spain*, and of their Hunters and ſtarters, out of their holes, he taketh and nameth indifferently without all diſtinction and exception, *Viverra*, and *Ictys*, for the one and other. *Niphus* tranſlateth *Ictys*, a Martel, but without reaſon; for the ſame man finding in *Ariſtotle*, that there is war betwixt Locuſts and Serpents, which is fitly called *Ophiomachia*; whereas *Ariſtotle* nameth *Akris*. a Locuſt, he falleth in doubt whether it were not better to be *Ictys*, a Martel, or as other copies have it *Apis*, an Aſpe, which can by no means agree unto them, for there is a kinde of Locuſts (called *Ophiomachum*) becauſe of their continual combates with Serpents. And therefore not to ſtand any longer upon this difference, omitting alſo the conjecture of *Tzetzes*, which confoundeth *Ictys* with *Milvus*, a Glead or Kyte, which cannot ſtand reaſonable, becauſe *Homer* ſaith, there was a kinde of Caps made of the hairs of *Ictys*, nor yet of *Albertus* his new found name of *Ankatinos*, nor *Avicenna* his *Katz*, or the *French*, *Fiſſau*, which is a Poul-Cat.

I will deſcend to the deſcription of the parts and qualities, wherein the Authors themſelves at variance, make their own reconcilement, by attributing the ſame things to the *Ictis*, and Ferret, except that of an obſcure Author, which ſaith that *Ictys* is *Ankaenor*, as big as a Gray-hound, and that it is wiſer and more induſtrious in his youth and tender age, then in his perfection of ſtrength and years.

Gaza.
Their ſeveral parts.
Countrey of breed.

These Ferrets are leſſer then the *Melitean* or Gentlewomens Dogs, and they were firſt of all brought out of *Africk* into *Spain*, and therefore are called by *Strabo*, *African* Weaſils, becauſe of their ſimilitude with Weaſils: for *Spain*, *Italy*, *France*, and *Germany*, have not this Beaſt bred among them, but brought to them out of other Countries. But in *England* they breed naturally of the quantity aforeſaid, and they are tamed to hunt Conies out of the earth. It is a bold and audacious Beaſt, enemy to all other, except his own kinde, drinking and ſucking in the bloud of the Beaſt it biteth, but eateth not the fleſh. When the Warrener ſetteth it down to hunt, he firſt of all maketh a great noiſe to fray all the Conies that are abroad into their holes, and ſo having frighted them, pitcheth his Nets, and then putteth his tame Ferret into the earth, having a long ſtring or cord with Bels about her neck, whoſe mouth he muzzleth, that ſo it may not bite the Cony, but only terrifie her out of her borough and earth with her preſence or claws; which being performed, ſhe is by Dogs chaſed into the nets, and there overwhelmed, as is aforeſaid in the hiſtory of the Conies.

Iſidorus.
Perottus.
Their drinking of bloud.
Agricola.
Their provocation to hunt.
Their colour and eyes.

Their body is longer for the proportion then their quantity may afford, for I have ſeen them two ſpans long, but very thin and ſmall. Their colour is variable, ſometime black, and white on the belly, but moſt commonly of a yellowiſh ſandy colour, like Hermeline or Wool, dyed in urine. The head little like a Mouſes, and therefore into whatſoever hole or chink ſhe putteth it in, all her body will eaſily follow after. The eyes ſmall, but fiery, like red hot iron, and therefore ſhe ſeeth moſt clearly in the dark: Her voyce is a whyning cry, neither doth ſhe change it as a Cat: She hath only two teeth in the neather chap, ſtanding out, and not joyned or growing together. The genital of the male is of a bony ſubſtance, (wherein *Pliny* and *Scaliger* agree with *Cardan* and *Strabo* for the *Ictys* alſo) and therefore it alway ſtandeth ſtiffe, and is not leſſer at one time then at other. The pleaſure of the ſenſe in copulation is not in the yard or genital part, but in the nerves, muſcles, and tunicles wherein the ſaid genital runneth. When they are in copulation, the female lyeth down or bendeth her knees, and continually cryeth like a Cat, either becauſe the Male pincheth and claweth her skin with his ſharp nails, or elſe becauſe of the rigidity of his genital. And when the female deſireth copulation, except ſhe be with convenient ſpeed brought to a male, or he ſuffered to come to her, ſhe ſwelleth and dyeth. They are very fruitful in procreation, for they bring forth ſeven or eight at a time, bearing them in their little belly not above forty days. The young ones newly littered are blinde 30 days together, and within forty days after they can ſee, they may be ſet to hunting. The Noble men of *France* keep them for this pleaſure, who are greatly given to hunt Conies, and they are ſold there for a *French* crown. Young boys and ſcholars alſo uſe them to put them into the holes of rocks and walls to hunt out birds, and likewiſe into hollow trees, where-out they bring the Birds in the claws of their feet.

The number of their young ones.

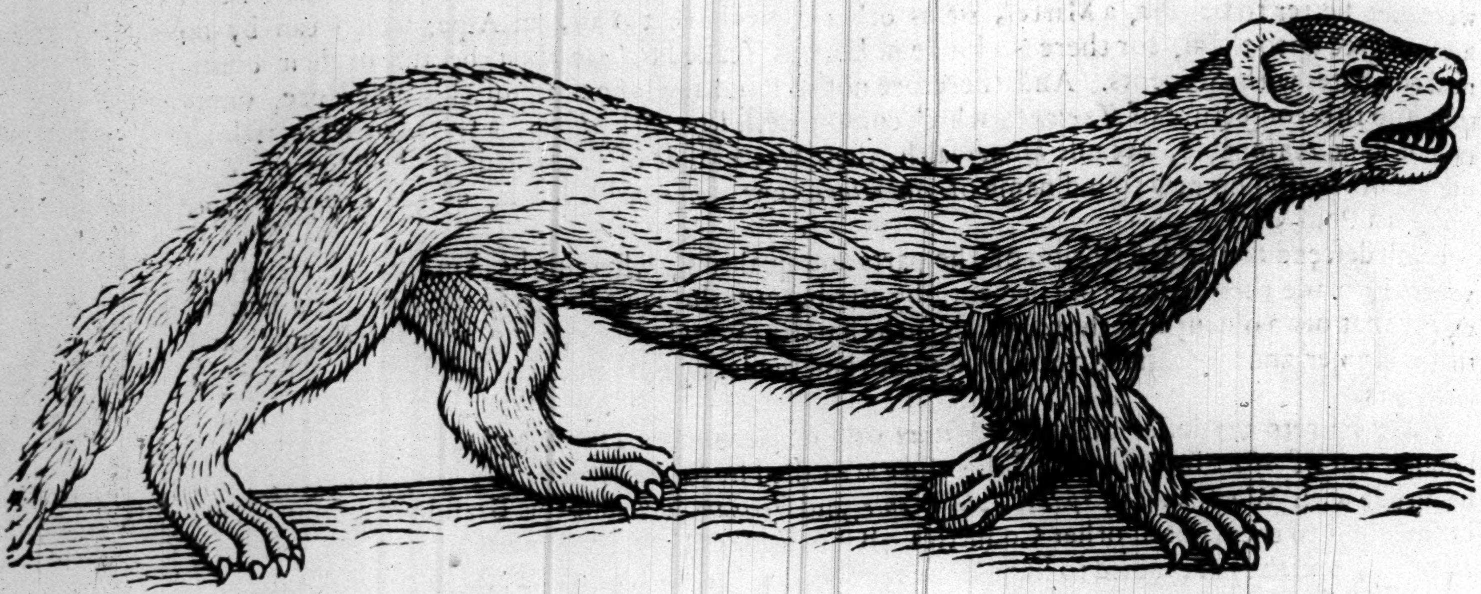
They are nouriſhed being tamed with Milk, or with Barley bread, and they can faſt a very long time. When they go, they contract their long back and make it ſtand upright in the middle, round like a bowl. When they are touched, they ſmell like a Martel, and they ſleep very much: being wilde, they live upon the bloud of Conies, Hens, Chickens, Hares, or other ſuch things, which they can finde and over-maſter. In their ſleep alſo they dream, which appeareth by whyning and crying in their ſleep. Whereas a long fly (called a Fryer) flying to the flaming candles in the night, is accounted among poyſons, the Antidote and reſiſter thereof is by *Pliny* affirmed to be a Goats gall or liver, mixed with a Ferret, or wilde Weaſil, and the gall of Ferrets is held pretious againſt the poyſon of Aſpes, although the fleſh and teeth of a Ferret be accounted poyſon. Likewiſe the gall of a Ferret is commended againſt the Falling diſeaſe, and not only the gall (ſaith *Marcellus*) but the whole body, if it be roſted, dreſſed, and eaten faſting, like a young pig. It is ſaid by *Raſis* and *Albertus*, that if the head of a Wolf be hanged up in a Dove-cote, neither Cat, Ferret, Weaſil, Stoat, or other noyſome Beaſt dare to enter therein. These Ferrets are kept in little hutches, in houſes,

Their food.

The medicines of Ferrets.

and there fed, where they ſleep much: they are of a very hot temperature and conſtitution, and therefore quickly digeſt their meat, and being wilde by reaſon of their fear, they rather ſeek their meat in the night then in the day time.

Of the *FITCH* or *POUL-CAT.*



Iſidorus.
The name and the notation thereof.

The quantity and nature of this Beaſt.
Stumpſius.
Agricola.

THE difference of a Poul-Cat, from the Wilde-Cat, is becauſe of her ſtrong ſtinking ſavour, and therefore is called *Putorius*, of *Putore*, becauſe of his ill ſmell: for all Weaſils being incenſed and provok't to wrath, ſmell ſtrongly, and eſpecially the Poul-Cat; likewiſe when in the Spring time they endeavour procreation, for which cauſe among the *Germans*, when they would expreſs an infamous Whore or Whoremaſter, they ſay they ſtink like an *Iltis*, that is a Fitch or Poul-Cat. The *French* call this Beaſt *Putois*, and *Poytois*, as it is to be found in *Carolus Figulus*; the *Savoyans*, *Pouttett*; the *Illyrians* and *Bohemians*, *Tchorz*; and the *Polonians*, *Viidra*; and *Scaliger* calleth it in *Latine* (*Catum fuinam*) by another name then *Putorius*. It is greater then an ordinary Weaſil, but leſſer then the wilde Martel, and yet commonly fatter: the hairs of it are neither ſmooth and of one length, or of one colour; for the ſhort hairs are ſomewhat yellowiſh, and the long ones black, ſo as one would think that in many places of the body, there were ſpots of divers colours, but yet about the mouth it is moſt ordinarily white.

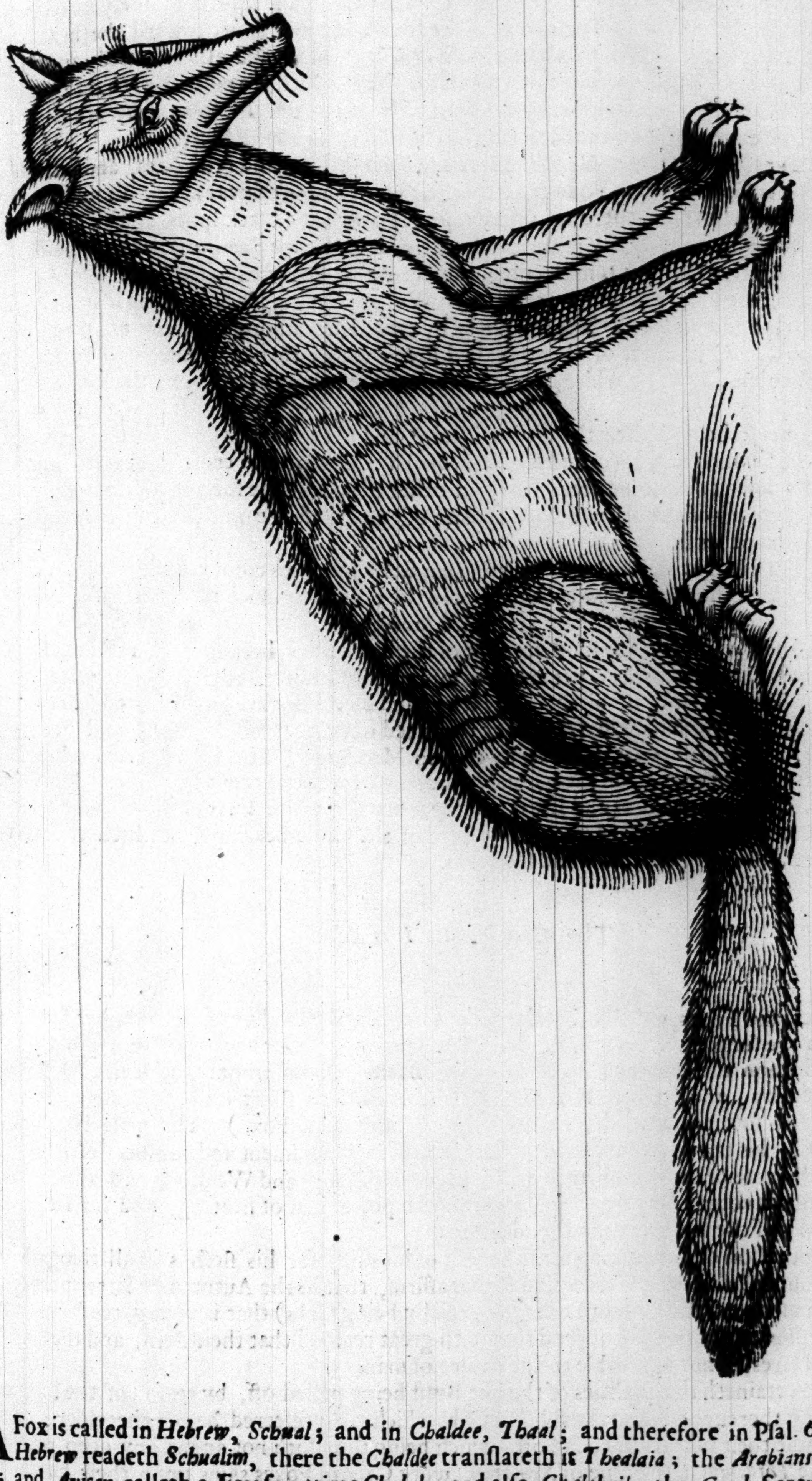
The skins and uſe of them.

The skin is ſtiff, harſh, and rugged in handling, and therefore long laſting in Garments, yet becauſe the Beaſt is alway fat, the ſavour of it is ſo rank, that it is not in any great requeſt, and moreover it is ſaid, that it offendeth the head, and procureth ach therein; and therefore it is ſold cheaper then a Fox skin, and the fatteſt is alway the worſt of all. The Skinners approve the skins of Fitches and Martels beſt, which are killed in Winter, becauſe their fleſh and luſt is much lower, and therefore rendereth a leſs hurtfull ſmell then at other times. The tail is not above two hands or palms long, and therefore ſhorter then is a Martels. In all other parts of the body it equalleth a Martell, or exceedeth very little, having thinner necks, but larger and greater bellies, the tail, legs, and breaſt, are alſo of a blacker colour, but the belly and ſides more yellow. Some have delivered that the left legs thereof are ſhorter then the right legs, but this is found untrue by daily experience: They keep in the tops of houſes and ſecret corners, delighting to kill and eat Hens and Chickens, whoſe craft in devouring his prey is ſingular; for to the intent that the ſilly creatures to be devoured may not bewray them to the Houſe-keepers, the firſt part that they lay hold upon with their mouths is the head of the Hen and Chicken, and by that means ſtayeth his crying by cropping off the head. Some of theſe Fitches wander and keep in the Woods, and thereby live upon Birds and Miſe, and ſuch things: ſome again live by the Sea ſides in Rocks, and they take Fiſhes like Beavers and Otters: and ſome creep into the Caves of hollow trees, where they eat Frogs, and moſt of all they delight to be near ſtals of Cattel, Hay-houſes, and houſes, where they meet oftentimes with Egges, wherein they delight above all other kindes of meat. And thus much for this Beaſt.

Iſidorus.
Their meat and ſubtilty not to be deſcryed.

Of

Of the FOX.



The ſeverall names of Foxes in ſundry languages.

A Fox is called in ***Hebrew***, ***Schual***; and in *Chaldee*, *Thaal*; and therefore in Pſal. 61. where the ***Hebrew*** readeth ***Schualim***, there the *Chaldee* tranſlateth it *Thealaia*; the ***Arabians*** call him ***Thaleb***; and ***Avicen*** calleth a Fox ſometime *Chabel*, and alſo *Chalchail*; the *Greek* Septuagints, ***Alopekon***, and vulgarly ***Alopex***, and ***Alopon***; the *Latine*, *Vulpes*, and *Vulpecula* of *Volipes*, his tumbling-pace; the ***Italians***, ***Volpe***; the ***French***, ***Regnard***, and a little Fox ***Regnardeau***; the ***Spaniards***, ***Raposa***, of ravening; the ***Germans***, ***Fuchs***; the ***Flemings***, ***Vos***; and the ***Illyrians***, ***Liſika***.

The Epithets of Foxes.

The Epithets expreſſing the nature hereof among Writers, both Poets and others, are theſe: crafty, wary, deceitful, ſtinking, ſtrong-ſmelling, quick-ſmelling, tayled, warlike or contentious, wicked and rough; the *Gracians* fiery colored, and ſubtil for ſlaughter; and therefore Chriſt called *Herod* a Fox, becauſe he underſtood how by crafty means he ſought to entrap and kill him: and all the

Ancients called ſuch kinde of men *Vulpiones*, which every Nation under Heaven doth imitate.

The Countries breeding Foxes. *Ælianus.* *Munſter.* *Ariſtotle.* *Albertus.* The colour of Foxes. *Olaus mag.*

There are ſtore of Foxes in the *Alpine* regions of *Helvetia*, and amongſt the *Caſpians* they abound, ſo that their multitude maketh them tame, comming into the Cities, and attending upon men like tame Dogs. The Foxes of *Sardinia* are very ravenous, for they kill the ſtrongeſt Rams and Goats, and alſo young Calves; and in *Egypt* they are leſſer then in *Græcia*, and moſt commonly all Foxes are of ſtature like to a ſhepherds Dog. Their colour is reddiſh and more white toward the head: In *Muſcovia* are both black and white, *viz* about the river *Woga*, black and aſh-coloured, and in the Province of *Vſting* all black, and theſe are of the ſmaller ſort, which are nouriſhed to make caps of their skins, and are therefore ſold at twenty or thirty Florens a skin. In *Spain* they are all white, and their skins are often brought by the Merchants to be ſold at *Francford* Mart.

In the Septentrional or Northern Woods, there are black, white, and red Foxes, and ſuch as are cald *Crucigeræ*, that is Croſs-bearing Foxes, for on their backs and orethwart their ſhoulders there is a black croſs, like an Aſſes: and there are Foxes aſperſed over with black ſpots, and all theſe are of one and the ſame malignant and crafty nature: and theſe (ſaith *George Fabritius*) are diſtinguiſhed by their regions or habitations: for it is moſt commonly ſeen, that Foxes which keep and breed toward the South and Weſt, are of an aſh colour, and like to Wolves, having looſe hanging hairs, as is to be ſeen both in *Spain* and *Italy*; and theſe are noted by two names among the *Germans*, from the colour of their throat. One kinde of them is called *Koler*, whoſe throat ſeemeth to be ſprinkled and darkned with cole-duſt, upon white, ſo as the tops of the hair appear black, the foot and ſtalk being white.

The other *Birkfuchſe*, becauſe their throat is all white, and of this kinde the moſt ſplendent white, is moſt pretious. A ſecond there is (called *Kreutzfuchſe*) becauſe of the croſs it beareth upon his back and ſhoulders down to his fore-feet, being in other parts like the former, except the throat which is blacker then any of the other before ſpoken of, and theſe are not bred in *Germany*, but brought thither from other Nations.

A third kinde is of a bright skie-colour (called *Blauwfuchſe*) and this colour hath given a different name to Horſes, which they call *Blauwſchimmel*, but in the Foxes it is much more mingled, and theſe Foxes which have rougher and deeper hair are called *Braudfuchſe*.

The *Moſcovians* and *Tartarians* make moſt account of the black skins, becauſe their Princes and great Nobles wear them in their garments: yet are they more eaſily adulterated, and counterfeited by the fume or ſmoke of Torches made of pitch. The white and blew skins are leſs eſteemed, becauſe the hair falleth off, and are alſo leſſer then the other: the red ones are moſt plentiful; and *Scaliger* affirmeth that he ſaw skins brought into *France* by certain Merchants, which had divers white hairs diſpoſed in rows very elegantly upon them, and in divers places they grew alſo ſingle. In *Norvegia* and *Suetia*, as there are white Hares and Bears, ſo there are alſo white Foxes; In *Wolocha* they are black, as it is affirmed by *Sigiſmundus Liber*, the picture of the Croſs-bearing-Fox which is leſs then the former is here following expreſſed and ſet down.

The *Crucigeran* FOX.

Adamantius. The parts and nature of Foxes. *Ariſtotle.*

Serpents, Apes, and Foxes, and all other dangerous harmful Beaſts, have ſmall eyes, but Sheep and Oxen which are ſimple, very great eyes. The *Germans* when they deſcribe a good Horſe, they decipher in him the outward parts of many Beaſts, from whom (it ſeemeth) he partaketh his generoſity, and from a Fox they aſcribe unto him ſhort ears, a long and buſhy tail, an eaſie and ſoſt treading ſtep, (for theſe belong to a Fox.) The male Fox hath a hard bony genital, his tail is long and hairy at the end, his temperament and conſtitution is hot, as appeareth both becauſe of his reſemblance or ſimilitude with Dogs and Weaſils, and alſo his rank and ſtrong ſmelling ſavour; for being dead, his skin hath power in it of heating, and his fat or oyl after a decoction is of the ſame force and condition.

The fleſh of Foxes evill to be eaten.

The greateſt occaſion of his hunting is the benefit of his skin, for his fleſh is in all things like a Dogs, and although *Galen*, *Mneſimachus*, and *Silvius* affirm, that in the Autumn or latter part of the year, ſome men uſe to eat the fleſh of Foxes, (eſpecially being Cubs) that is young, tender, and not ſmelling: but *Ætius* and *Raſis* affirm, (and that with great reaſon) that their fleſh, and the fleſh of Hedg-hogs and Hares, is not agreeable to the nature of man.

The uſe of their skins.

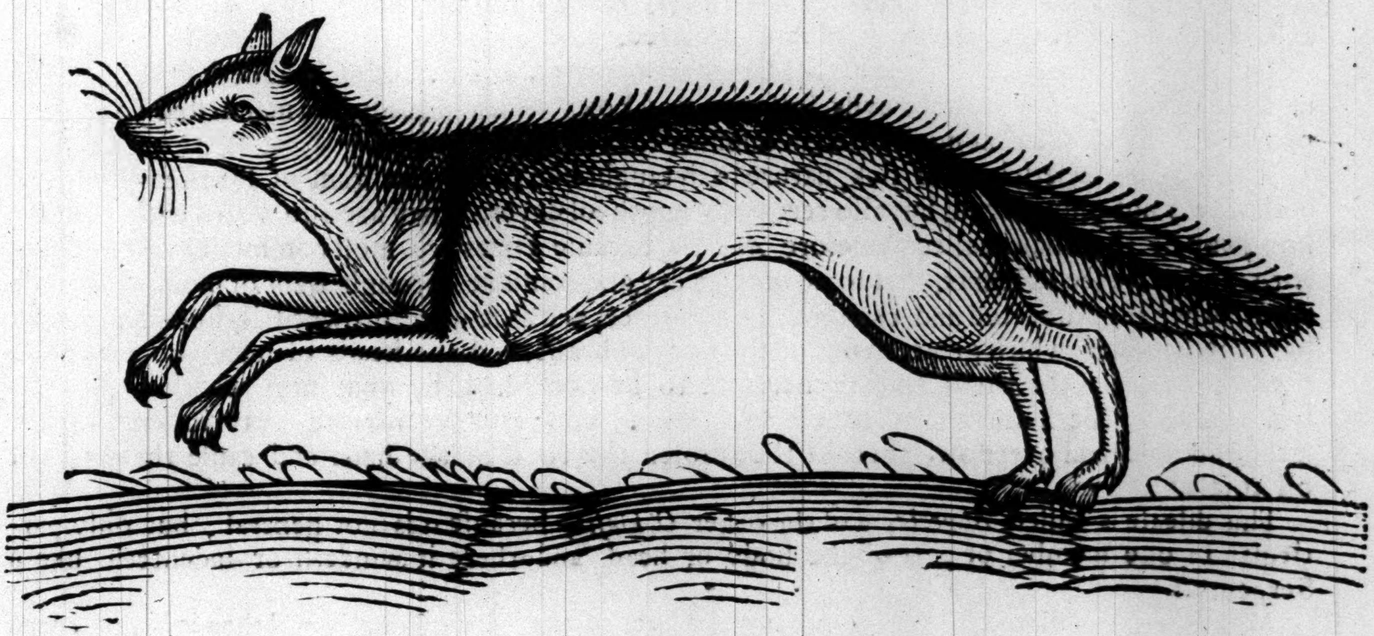
But their skin retaineth the qualities of the hot Beaſt being pulled off, by reaſon of the long and ſoft hair growing thereupon; and the skins of Cubs which are preferred before the elder, are of leaſt value, becauſe their hair is apt to fall off, which being thin doth not admit any deep rootings of the hair. The *Thracians* in the time of *Xenophon*, wore Caps of Foxes skins upon their heads and ears, in the coldeſt and hardeſt Winters, and from hence it cometh, that in ſome Authors the covers of mens heads, (commonly called in *Greek*, *Pericephalæa*) are tearmed *Alopeciæ*, or *Alopecis*: and for this purpoſe in *Germany* at this day, they ſlit aſunder the skin of Foxes tails, and ſow it together again, adding to it a ſufficient number till it be framed into a Cap: but the skin of the belly and ſides is of more pretious eſtimation, becauſe it is more ſoft and ſmooth, and therefore is ſold for twice ſo much as the other parts, In the Summer time the skins are little worth, becauſe that then the beaſts are troubled with the *Alopecia*; that is, the falling off or looſeneſs of the hair; and therefore then alſo they are dangerous to be uſed, becauſe of that diſeaſe: men which have the Gowt, ſhrinking up of the ſinews, or other old fluxions of the Rhewme in their legs, can uſe no better or more wholeſome thing then to wear buskins of the skins of Foxes; the *Scythians* make them ſhooes, and ſoal them with the backs of Fox and Miſe skins, upon which they go. The *Latins* have a proper word for the voice of a Fox, which is, *Gannio Gannire*, to Ganne, and it is alſo metaphorically applyed to men, when by ſcrieching clamors they trouble others; as *Terence in Adelph. Quid ille gannit? Quid vult?* And *Plautus* alſo, *Gannit odioſus omni toti familiæ*; and for this voice did *Mautuan* write his Verſe;

Alex. ab alex donatus.

The voice of Foxes.

——*Putes ululare lupos, gannire ſagaces*
Vulpeculas————

But yet as *Albertus* and *Conſtantinus* have truly obſerved, that in the time of his hunting he will bark like a little Dog, and the Harts are greatly afraid of this ganning of Foxes.



It hath been already ſhewed in the ſtory of the Badger, how the Fox by laying his extrements in the Badgers den, getteth the ſame to his own uſe; for the abode of Foxes in the day time is in the caves and holes in the earth, and come not abroad till the night. Theſe dens have many caves in them, and paſſages in and out, that when the Terriars ſhall ſet upon him in the earth, he may go forth ſome other way: and foraſmuch as the Wolf is an enemy to the Fox, he layeth in the mouth of his den, an Herb (called Sea-onion) which is ſo contrary to the nature of the Wolf, and he ſo greatly terrified therewith, that he will never come neer the place where it either groweth or lyeth; the ſame is affirmed of the Turtle to ſave her young ones, but I have not read that Wolves will prey upon Turtles, and therefore we reject that as a fable.

Their dens and caves in the earth.
Gillius.
Oppianus.
Zoroaſtres.
Gillius.

When *Ariſtomanes* was taken by the *Lacædemonians*, and included into a rock or quarrey of ſtones, he eſcaped out of their hands, by digging another paſſage out of it then where he was put in; ſaying, that it was a ſhame for a Man to have leſſe wit then a Fox. When they are in their dens, they lie upon their bellies with their hinder legs ſtretched forth at length, like as a man when he ſleepeth on his belly, and therefore it ſeemeth that their legs are ſo framed to creep and pierce under the earth and dig out their way after their own pleaſure.

Pliny.

This is ſuch a devouring beaſt, that it forſaketh nothing fit to be eaten, for it killeth Hares and Conies, and with his breath draweth field Mice out of their holes, like as a Hart draweth out Serpents with his breath, and devoureth them. He devoureth alſo all kinde of Pullen, they alſo eat Grapes, Apples, and Pears; whereupon came the proverb in *Plautus*, *Tam facile vinces quam vulpes pyrum comeſt*; Thou ſhalt as eaſily overcome him, as a Fox eateth a Pear: which is applyed to any eaſie or diſpatchable buſineſs. In *Arabia*, and *Syria Paleſtina*, they are ſo ravenous, harmful, and audacious, that in the night by ganning and barking, they invite one another (as it were) by a Watchword, to aſſemble in great multitudes together, for to prey upon all things, and they fear not to carry into their dens, old ſhooes and veſſels, or inſtruments of husbandry: for which cauſe, when the Husbandmen hear thereof, they gather all things into their houſes and watch them.

The food of Serpents.

But as it falleth out in all gluttonous ravening perſons, that while they ſtrive to fill their bellies, they poiſon their lives, ſo alſo it fareth with Foxes, for nature hath ſo ordained, that if a Fox eat any meat wherein are bitter Almonds, they die thereof if they drink not preſently: and the ſame thing do Aloes in their meat work upon them, as *Scaliger* affirmeth upon his own ſight or knowledge. *Apocynon* or Bear-foot given to Dogs, Wolves, Foxes, and all other beaſts which are

The harme of Foxes.
Dioſcorides.
Serapio.

littered blind, in fat or any other meat killeth them, if vomit help them not, which falleth out very ſeldom, and the ſeeds of this herb have the ſame operation. It is reported by *Democritus*, that if wilde Rue be ſecretly hunge under a Hens wing, no Fox will meddle with her; and the ſame writer alſo declareth for approved, that if you mingle the gall of a Fox, or a Cat, with their ordinary food; they ſhall remain free from the dangers of theſe beaſts.

Their carnal copulation.

When they engender and admit copulation, they are joyned like Dogs, the male upon the female: and the female when ſhe perceiveth her womb filled, ſhe departeth and liveth very ſecret, for it falleth out very ſeldom that a female or Bitch-fox is taken great with young. She bringeth forth ordinarily four at a time, and thoſe blind and imperfect, without Articles in their legs, which are perfected and framed by licking, for Bears, Wolves, Lions, Foxes, Dogs, and *Thoes* which are *Multipara* and *Multifida*, that is, fruitful, bearing many at one time, and alſo Cloven or ſlit-footed into many clawes, have not the benefit of nature to perfect their young ones in their wombes.

Kites, Vultures, and Eagles lie in wait to deſtroy the Foxes Cubs or Whelps. Foxes do not only engender with their own kinde, but alſo with Wolves, Dogs, or any other beaſts of equall proportion, both of quantity and time of going with young: ſo the *Laconian* Dogs are engendred by a Dog and a Fox; and the *Hyæna*, of a Wolf and a Fox (as *Albertus* affirmeth) and the *Simivulpa* of an Ape and a Fox, as is already in the ſtory of Apes declared.

The diſeaſes of Foxes.

There be alſo many evils wherewithal Foxes are annoyed, and firſt of all he falleth ſometime into madneſs as a Dog, and the ſame evils follow a mad Fox, which already are manifeſted to accompany a mad Dog, and that more often in Summer then in Winter.

Albertus.
Liber.
Aetius.

When a Fox feeleth himſelf ſick, nature hath taught him to eat the gum of Pinetrees, wherewithal he is not only cured, but alſo receiveth length of dayes. They are alſo vexed with the falling away of their hair, called therefore *Alopecia*, becauſe Foxes are moſt commonly vexed therewith, and as we ſee in Plants, that ſome of them dry and conſume through want of moiſture to feed them, other are ſuffocated and choaked by abundance, and as it were drowned in humidity: ſo it happeneth in hair, which groweth out of the body of beaſts, and the heads of men, no otherwiſe then Plants out of the earth, and are therefore to be nouriſhed by humours; which if they fail and wax dry, the hair alſo ſhorteneth with them, and as it were rotteth away in length: but if they abound and overflow, then do they looſen the roots of the hair, and cauſe them to fall off totally.

This diſeaſe is called *Alopecia*, and the other *Ophiaſis*, becauſe it is not general, but only particular in one member or part of the body or head, and there it windeth or indenteth like a Serpents figure.

Michael Ferius affirmeth, that ſometime the liver of the Fox inflameth, and then it is not cured but by the Ulcerous blood flowing to the skin, and that evill blood cauſeth the *Alopecia*, or falling away of the hair, for which cauſe (as is already ſaid) a Foxes skin is little worth that is taken in the Summer time.

The length of their life.

Varinus.

The length of the life of a Fox is not certainly known, yet as *Stumpſius* and others affirm, it is longer then the life of a Dog. If the urine of a Fox fall upon the graſſe or other herbs, it dryeth and killeth them, and the earth remaineth barren ever afterward. The ſavour of a Fox is more ſtrong then of any other vulgar beaſt, he ſtinketh at noſe and tail, for which cauſe *Martial* calleth it *Olidam Vulpem*, an *Olent* or ſmelling beaſt.

Hic olidam clamoſus ages in retia vulpem.

The hunting and taking of Foxes.

Touching the hunting or taking of Foxes, I approve the opinion of *Xenophon*, who avoucheth, *Leporum capturam venatico ſtudio quam vulpium digniorem*; that is, the hunting of the Hare is a more noble game or paſtime then the hunting of the Fox.

Ælianus.
Oppianus.
Belleſarius.
Textor.

This beaſt is more fearful of a Dog then a Hare, for the only barking of Dogs cauſeth him to riſe many times from his den or lodgings out of the earth, or from the middle of buſhes, briars, and brambles, wherein he hid himſelf: and for his hunting this is to be obſerved, that as in hunting of a Hart it hath been already related, the Hunter muſt drive the beaſt with the winde, becauſe it hindereth his refrigeration; ſo in hunting of a Fox he drive him againſt the winde, and then he preventeth all his crafty and ſubtill agitations and deviſes; for it ſtayeth his ſpeed in running, and alſo keepeth his ſavour freſh alway in the noſe of the Dogs that follow him: for the Dogs that kill a Fox muſt be ſwift, ſtrong and quick ſented, and it is not good to put on a few at once, but a good company together, for be aſſured the Fox will not loſe his own bloud till he hazzard ſome of his enemies, and with his tail which he windeth every way, doth he delude the Hunters: when the Dogs are preſſed neer unto him, and are ready to bite him, he ſtriketh his tail betwixt his legs, and with his own urine wetteth the ſame, and ſo inſtantly ſtriketh it into the Dogs mouths, whereof when they have taſted, ſo many of them as it toucheth will commonly leave off and follow no farther.

Oppianus.

Their teeth are exceeding ſharp, and therefore they fear not to aſſault or contend with beaſts, exceeding their ſtature, ſtrength, and quantity. Sometime he leapeth up into a tree, and there ſtandeth to be ſeen and bayed at by the Dogs and Hunters, like as a Champion in ſome Fort or Caſtle, and although fire be caſt at him, yet will he not deſcend down among the Dogs; yea he endureth to be beaten and pierced with Hunters ſpears, but at length being compelled to forſake his hold and give over to his enemies, down he leapeth, falling upon the crew of barking Dogs, like a flaſh of lightning, and where he layeth hold there he never looſeth teeth, or aſſwageth wrath, till other Dogs have torn his limbs, and driven breath out of his body.

If at any time he take the earth, then with Terriar Dogs they ferret him out of his den again. In ſome places they take upon them to take him with nets, which ſeldom proveth, becauſe with his teeth he teareth them in pieces; yet by *Calentius* this deviſe is allowed in this Verſe;

Et laqueo Vulpes & decipe caſſe fuinas.

But this muſt be wrought under the earth in the caves, dens, or ſurrowes, made of purpoſe, which is to be performed two manner of wayes, one by placing the Gin in ſome perch of wood, ſo as that as ſoon as the beaſt is taken by the Neck, it may preſently flie up and hang him, for otherwiſe with his teeth he will ſhear it aſunder and eſcape away alive: or elſe that neer the place where the rope is faſtened, to ſlip upon the head of the Fox, there be placed ſome thick collar or brace, ſo as he can never bite it aſunder.

The *French* have a kinde of Gin to take by the legs (which they call *Hauſepied*) and I have heard of ſome which have found the Foxes leg in the ſame Gin, bitten off with his own teeth from his body, rather putting himſelf to that torment with his own teeth, then to expect the mercy of the Hunter, and ſo went away upon three feet: and other have counterfeited themſelves dead, reſtraining their breath and winking, not ſtirring any member when they ſaw the Hunter come to take them out of the Gin, who coming and taking his leg forth, not ſuſpecting any life in them, ſo ſoon as the Fox perceiveth himſelf free, away he went and never gave thanks for his deliverance: for this cauſe *Blondus* ſaith truly, that only wiſe and old Hunters are fit to take Foxes, for they have ſo many deviſes to beguile men, and deliver themſelves, that it is hard to know when he is ſafely taken, untill he be throughly dead.

A noble inſtance of a Foxes courage.

The ſubtlety of a Fox taken in a ſnare.

They alſo uſe to ſet up Gins for them baited with Chickens in buſhes and hedges: but if the ſetter be not at hand ſo ſoon as the Fox is inſnared, it is dangerous but that the beaſt will deliver it ſelf. In ſome places again they ſet up an iron toile, having in it a ring for the Fox to thruſt in his head, and through that ſharp pikes, at the farther end whereof is placed a piece of fleſh, ſo that when the hungry Fox cometh to bite at the meat and thruſteth in his head, the pikes ſtick faſt in his neck, and he inevitably inſnared. Moreover, as the harmefulneſs of this beaſt hath troubled many, ſo alſo they have deviſed more engins to deceive and take him; for this cauſe there is another policy to kill him by a bow, full bent, with a ſharp arrow, and ſo tenderly placed as is a trap for a Mouſe, and as ſoon as ever the Fox treadeth thereon, preſently the arrow is diſcharged into his own bowels, by the weight of his foot.

Again, for the killing of this beaſt they uſe this ſleight, they take of Bacon-greaſe or Bacon as much as ones hand, and roſt the ſame a little, and therewith anoint their ſhooe-ſoles, and then take the liver of a Hog cut in pieces, and as they come out of the wood where the beaſt lodgeth, they muſt ſcatter the ſaid pieces in their foot-ſteps and draw the carcaſſe of a dead Cat after them, the ſavour whereof will provoke the beaſt to follow the foot-ſteps, then have they a cunning Archer or handler of a Gun, who obſerveth and watcheth in ſecret till the beaſt come within his reach, and ſo giveth him his great and deadly wound.

But if the Fox be in the earth, and they have found his den, then they take this courſe to work him out. They take a long thing like a Bee-hive, and open at one end, and iron wiers at the other like a grate, and at the open end is ſet a little door to fall down upon the mouth, and to incloſe the Fox when he entreth in by touching of a ſmall rod that ſupporteth that door. This frame is ſet to the Foxes dens mouth, and all the other paſſages watched and ſtopped. The Fox having a deſire to go forth, and ſeeing light by the wiers, miſdeemeth no harm, and entreth into the hive which is wrought cloſe into the mouth of his den, and being entred into it, the rod turneth the door faſt at the lower end or entrance, and ſo the Fox is intrapped, to be diſpoſed of at the will of the taker.

Foxes are annoyed with many enemies; and to begin with the leaſt, the ſmall flies, called Gnats, do much trouble and infect them, againſt whom the Fox uſeth this policy; He taketh a mouthful of ſtraw or ſoft hay, or hair, and ſo goeth into the water, dipping his hinder parts by little and little, then the flies betake themſelves to his head, which he keepeth out of the water, which the Fox feeling, dippeth or diveth alſo the ſame under water to his mouth, wherein he holdeth the hay as aforeſaid, whereunto the flies runne for ſanctuary or dry refuge, which the Fox perceiving, ſuddenly caſteth it out of his mouth, and runneth out of the water, by this means eaſing himſelf of all thoſe enemies.

The beaſts that are enemies of Foxes.

Albertus.

In like manner, as all beaſts are his enemies, and he friend and loving to none, ſo with ſtrength, courage, and policy, he dealeth with every one, not only againſt the beaſts of the Land, but alſo againſt the monſters of the Sea. When he findeth a neſt of Waſpes in the earth, or in other places, as in trees, he layeth his tail to the hole, and ſo gathereth into it a great many of them, which he preſently daſheth againſt the wall, or tree, or ſtones adjoyning, and ſo deſtroyeth them, and thus he continueth untill he have killed them all, and ſo maketh himſelf executor to their heaps of hony.

Gillius.

His manner is when he perceiveth or ſeeth a flock of fowl to flie in the air, to rowl himſelf in red earth, making his ſkin to look bloody, and lie upon his back, winking with his eye, and holding in his breath as if he were dead, which thing the birds, namely Crows, Ravens and ſuch like obſerving, becauſe of the hatred of his perſon, they for joy alight and triumph at his overthrow, and this the Fox endureth for a good ſeaſon, till opportunity ſerving his turn, and ſome of the fowl come neer his ſnowt, then ſuddenly he catcheth ſome one of them in his mouth, feeding upon him like a living and not a dead Fox, and ſo doth devour and eat him, as the Leopard doth devour and eat Apes, and the Sea frog other little fiſhes.

In like ſort he deceiveth the Hedge-hog, for when the Hedge-hog perceiveth the Fox coming to him, he rowleth himſelf together, like a foot-ball, and ſo nothing appeareth outward except his prickles, which the Fox cannot indure to take into his mouth, and then the cunning Fox to compaſſe his deſire, licketh gently the face and ſnowt of the Hedge-hog, by that means bringing him to unfold himſelf again, and to ſtand upon his legs, which being done, he inſtantly devoureth, or elſe poiſoneth the beaſt with the urine that he rendereth upon the Hedge-hogs face: and at other times he goeth to the waters, and with his tail draweth fiſhes to the brim of the River, and when that he obſerveth a good booty, he caſteth the Fiſhes clean out of the water upon the dry land, and then devoureth them.

All kindes of Hawkes are enemies to Foxes, and Foxes to them, becauſe they live upon Carrion, and ſo in the Province of *Ula*. *Avicen* ſaw a Fox and a Crow fight together a long ſeaſon, and the Crow with his talons ſo be-gripling the Foxes mouth that he could not bark, and in the mean time ſhe beat and picked his head with her bill untill he bled again. The Eagles fight with Foxes and kill them; and *Olaus Magnus* affirmeth, that in the Northern Regions they lay Egges and hatch their young in thoſe ſkins which they themſelves have ſtripped off from Foxes and other beaſts.

The Kites, Vultures, and Wolves, are Enemies to Foxes, becauſe they are all fleſh-devouring creatures, but the Fox which hath ſo many enemies, by ſtrength or ſubtilties overcometh all. Whereupon *Perſius* calleth a ſubtil man a Fox, ſaying,

Aſtutam vapido ſervas ſub pectore vulpem.

The medicines ariſing out of Foxes.

The medicinal uſes of this beaſt are theſe, Firſt, (as *Pliny* and *Marcellus* affirm) a Fox ſod in water till nothing of the Fox be left whole except the bones, and the legs or other parts of a gowty body waſhed and daily bathed therein, it ſhall drive away all pain and grief, ſtrengthning the defective and weak members; ſo alſo it cureth all the ſhrinking up and pains in the ſinews: and *Galen* attributeth the ſame virtue to an *Hyæna* ſod in Oil, and the lame perſon bathed therein, for it hath ſuch power to evacuate and draw forth whatſoever evill humour aboundeth in the body of man, that it leaveth nothing hurtful behind.

Sextus.

Nevertheleſſe, ſuch bodies are ſoon again repleniſhed through evill diet, and relapſed into the ſame diſeaſe again. The Fox may be boyled in freſh or ſalt water with Anniſe and Thyme, and with his ſkin on whole and not ſlit, or elſe his head cut off, there being added to the decoction two pintes of Oil.

Mathæolus.

The fleſh of a Fox ſod and layed to a ſore bitten by a Sea-hare, it cureth and healeth the ſame. The Foxes ſkin (as is already ſaid) is profitable againſt all moiſt Fluxes in the ſkin of the body, and alſo the Gowt, and cold in the ſinews. The aſhes of Foxes fleſh burnt and drunk in wine, is profitable againſt the ſhortneſs of breath and ſtoppings of the Liver.

Albertus.
Silvius.

The bloud of a Fox diſſected and taken forth of his urine alive, and ſo drunk, breaketh the ſtone in the bladder; or elſe (as *Myrepſus* ſaith) kill the Fox, and take the bloud and drink a cupful thereof, and afterward with the ſame waſh the genital parts, and within an hour the ſtone ſhall be voided: the ſame virtue is in it being dryed and drunk in Wine with Sugar.

Abſyrtus.

Oxycraton and Foxes blood infuſed into the Noſtrils of a lethargick Horſe, cureth him. The fat is next to a Buls and a Swines, ſo as the fat or lard of Swine may be uſed for the fat of Foxes, and the fat of Foxes for the Swines greaſe in medicine. Some do herewith anoint the places which have the Cramp, and all trembling and ſhaking members. The fat of a Fox and a Drake incloſed in the belly of a Gooſe, and ſo roſted, with the dripping that cometh from it, they anoint paralytick members.

Aetius.

The ſame with powder of Vine twigs mollified and ſod in lie, attenuateth and bringeth down all ſwelling tumours in the fleſh. The fat alone healeth the *Alopecias* and looſeneſs of the hair; it is commended in the cure of all Sores and Ulcers of the head; but the gall and ſime with Muſtard-ſeed is more approved. The fat is alſo reſpected for the cure of pain in the ears, if it be warmed and melt at the fire, and ſo inſtilled; and this is uſed againſt tingling in the ears. If the hairs rot away on a Horſe tail, they recover them again by waſhing the place with Urine and Bran, with Wine and Oil and afterward anoint it with Foxes greaſe. When Sores or Ulcers have procured the hair to fall off from the head, take the head of a young Fox burned with the leaves of black *Orchanes* and *Alcyonium*, and the powder caſt upon the head recovereth again the hair.

Hierocles.
Abſyrtus.
Theomneſtus.
Ægineta.

If the brain be often given to Infants and ſucking children, it maketh them that they ſhall remain free from the falling evill. *Pliny* preſcribeth a man which twinkleth with his eyes, and cannot look ſtedfaſtly, to wear in a chain the tongue of a Fox; and *Marcellus* biddeth to cut out the tongue of a live Fox, and ſo turn him away, and hang up that tongue to dry in purple thred, and afterward put it about his neck that is troubled with the whiteneſs of the eyes, and it ſhall cure him.

But it is more certainly affirmed, that the tongue either dryed or green, layed to the fleſh *Dioſcorides.* wherein is any Dart or other ſharp head, it draweth them forth violently, and renteth not the fleſh, but only where it is entred. The Liver dryed and drunk cureth often ſighing. The ſame or the Lights drunk in black wine, openeth the paſſnges of breathing. The ſame waſhed in wine and dryed in an earthen pot in an Oven, and afterward ſeaſoned with Sugar, is the beſt medicine in the world for an old Cough, for it hath been approved to cure it, although it hath continued twenty years, drinking every day two ſpoonfuls in wine.

The Lights of Foxes drunk in water after they have been dryed into powder, helpeth the *Pliny.* Milt; and *Myrepſus* affirmeth, that when he gave the ſame powder to one almoſt ſuffocated in a Pluriſie, it prevailed for a remedy. *Archigene* preſcribeth the dryed Liver of a Fox for the Splenetick with Oxymel: and *Marcellinus* for the Milt drunk after the ſame manner; and *Sextus* adviſeth to *Sextus.* drink it ſimply without compoſition of Oxymel.

The Gall of a Fox inſtilled into the ears with Oil, cureth the pain in them; and mixed with Hony Attick and anointed upon the eyes, taketh away all dimneſs from them, after an admirable manner. The Milt bound upon the tumors and bunches of the breſt, cureth the Milt in mans body. The reins dryed and mingled with Hony, being anointed upon kernels, take them away For the ſwelling of the chaps, rub the reins of a Fox within the mouth. The genitals becauſe of their griſtly and bony ſubſtance, are approved for the diſperſing of the ſtone in the bladder.

The ſtones take away pimples and ſpots in the face. The dung pounded with Vinegar, by anointment cureth the Leproſie ſpeedily.

Theſe and ſuch other virtues Medicinal both the elder and later Phyſitians have obſerved in a Fox, wherewithal we will conclude this diſcourſe; ſaving that many writers have deviſed divers witty inventions and fables of Foxes, under them to expreſs vices of the world, as when they ſet a Fox in a Fryers weed, preaching to a ſort of Hens and Geeſe, following the fiction of *Archilochus* Fox, to ſignifie how irreligious Paſtors in holy habits beguile the ſimple with ſubtility. Alſo of a Fox teaching a Hare to ſay his *Credo* or Creed betwixt his legs, and for this cauſe almighty God in his word compareth falſe Prophets to Foxes, Ezek. 13. deſtroying the young Grapes and Plants. The Weaſil brought a Fox into a Garner of Corn through a ſmall hole, and when he had filled his belly, he aſſayed to come out again at the ſame place, but in vain, becauſe his body ſwelled with over eating, and therefore he was conſtrained to come out as empty and hungry as he came in: whereupon this conference was betwixt them;

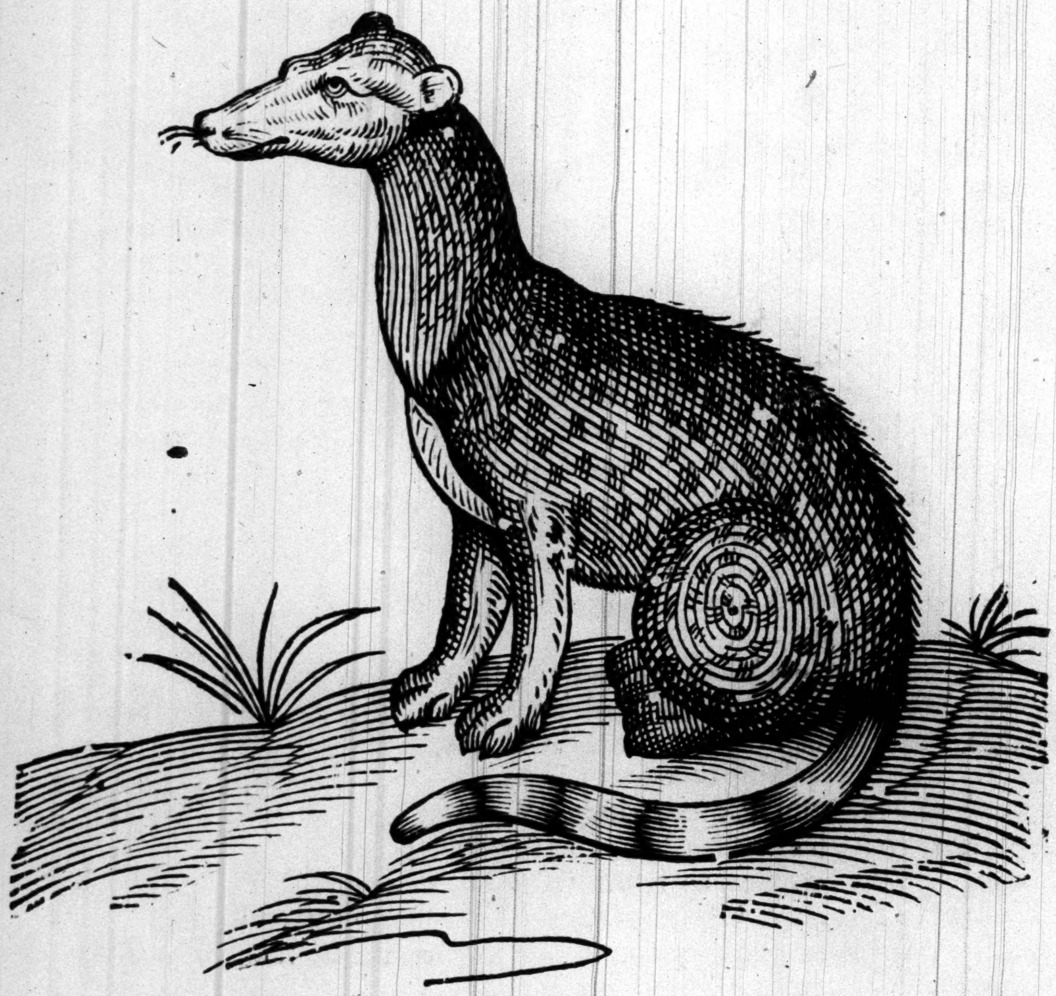
Forte per anguſtam tenuis Vulpecula rimam,
Repſerat in cameram frumenti, poſtea rurſus
Ire foras pleno tentabat corpore fruſtra.
Cui muſtela procul, Si vis, ait, effugere iſthinc,
Macra cavum repetes arctum, quem macra ſubiſti.

Of the *GENNET-CAT*, called *GENETHA.*

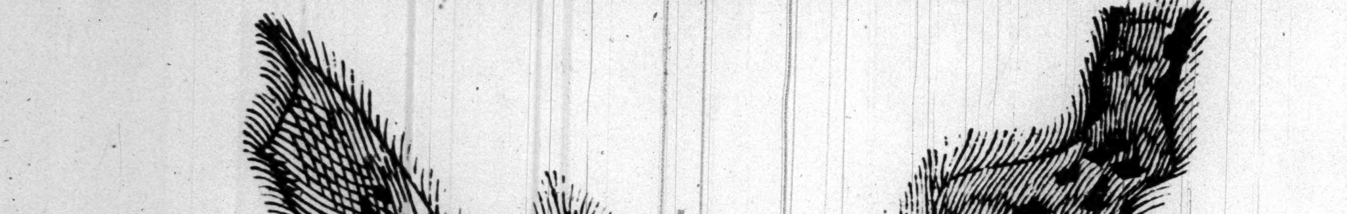
THis beaſt is called *Genitocatus*, either for the ſimilitude it holdeth with a Cat, or elſe becauſe it hath been believed that it was engendred by a Cat, but I rather do aſſent that the right name thereof is *Ginetta* or *Ginetha*, becauſe they are bred in *Spain* with the *Gennet* horſes, and ſo taketh his name from the place. *Albertus* (though a learned man, yet many times he was deceived in the names of beaſts) called this creature *Genocha*, and the *Germans* call it *Ein Gennithkatz*. The quantity or ſtature hereof is greater then a Cat, but leſſer then a Fox, and therefore I think it about the *Albertus.* mold or bigneſs of a young Fox of ſix moneths old. It is a meek and gentle creature, except it be provoked; for in *Conſtantinople* they are kept tame, and are ſuffered to go up and down from houſe *Bellonius.* to houſe like Cats. Being wilde, they love the vallies and low places, eſpecially the Mariſhes or land neer the waters, for the ſteep rocky mountains they cannot endure. And theſe *Cardan* taketh to be *Iſidorus.* of the Weaſil kinde, becauſe the forme and diſpoſition thereof, eſpecially to the tame and Domeſtical *Vincentius* Weaſil, and in *Spain* they are cald *Foinai*, being black and aſh-coloured, diſtinguiſhed and vari- *Belnac.* ably interlined with many ſpots.

But *Scaliger* who was delighted to contradict *Jerom Cardan*, cannot endure to hear of this compariſon betwixt Weaſils and Ginnet-cats, becauſe he ſaith, the skin of a *Gennitta* is bigger then three Weaſils, and that it reſembleth a Weaſil in nothing except in the ears; but *Cardans* compariſon toucheth not the quantity, but only the outward form and qualities, and he himſelf diſagreeth not that it is equall in quantity to an Otter. But certainly the skin thereof is admirable and beautiful to behold, and if they were not common, but rare and ſeldom found beaſts, it is no queſtion but the price thereof and due eſtimation would excell many others: For the abundance

dance of ſpots, their natural and uniform order, their ſhining ſplendor and brightneſs, give place to no other party-coloured beaſt, as you may obſerve in the true figure thereof here declared.



Of the skin. In the next place I have thought good to expreſs the figure of the skin taken off, which skin, from the head to the top of the tail, was about four ſpans and one palm long, and the tail was as



long as the body being ſevered from the skin: the latitude or breadth thereof in the middle, was about one ſpan in breadth, the middle of the belly, and the upper part of the neck, were aſh coloured, and in the tail were eight black circles and ſo many white, one ſucceſſively following the other; the whole body aſperſed with black ſpots, and the reſidue yellowiſh white.

Oppianus.

The skin ſmelt ſweetly and ſomewhat like to a Musk-cat, and from *Lyons* in *France* they are brought into *Germany*, three or four of them being ſold for a Noble. It is very probable that it is a little kinde of Panther or Leopard, for there is a little Panther which hath ſuch ſpots, and beſides of ſuch a ſtature and harmleſs diſpoſition, whoſe skin in old time was pretiouſly uſed for garments, and the ſavour thereof was very pleaſant, and therefore I ſuperſede any further diſcourſe hereof, till we come to the declaration of the greater beaſt.

Of the *GOAT*, *Male* and *Female*.

The ſeveral names.

THe male or great Goat-Buck, is called in ***Hebrew***, ***Atud***, and the leſſer *Seir*, and *Zeir*. The *Chalde* tranſlateth it, Gen. 13. *Teias-jaii*, and Numb. 15, *Ize*; the ***Arabians***, ***Tem*** and ***Maez***, the *Perſians*, *Aſteban*, and *Buſan*; the ***Grecians***, ***Tragos***, or devouring or ravening in meat, according to the Verſe;

> *Tragus ab Edendo quod grana fracta pane.*

Alſo *Chimaron* and *Enarchan*; the *Latins*, *Hircus*, and ſometime *Caper*, which word properly ſignifieth a Gelded Goat, as *Martial* uſeth in this Verſe:

> *Dum jugulas hircum, factus es ipſe Caper.*

The *Italians*, *Beccho*; the *Germans*, *Bock*, and for diſtinction ſake, *Geiſsbock*, and *Reechbock*, and *Boeck*; the *Spaniards*, *Gabron*; the *French*, *Bouc*, the *Illyrians*, *Kozel*.

The reaſon of the *Latin* word *Hircus*, is derived of *Hirtus* (ſignifying rough), by reaſon of the roughneſs of their bodies. And it is further to be underſtood, that the general kind of Goats (which the *Latins* diſtinguiſh by *Hircus*, *Capra*, and *Hædus*, that is, by their ſex, or by their age; the *Hebrews* call them ſingularly ***Ez***, and plurally *Izim*, Numb. 15. for a Goat of a year old, you ſhall read *Izbeniſch neth*. The *Chalde* uſeth alſo the general word *Oza*; the *Arabian*, *Schaab*; the *Perſian*, *Buz*, and whereas Levit. 16. *Seir* is put for *Caper* a gelded Goat, there the *Chalde* reudereth it *Zephirah*; the *Arabians*, *Atud*, and the ***Perſian Buzgalaie***. And in the ſame Chapter you ſhall read *Azazel*, which *David Kimbi* rendereth for the name of a mountain neer *Sinai* where Goats uſe to feed and lodge: and the *Septuagints* tranſlate it *Apopompaion*, ſignifying emiſſion or ſending away, and for this cauſe I ſuppoſe, that when the Scape-goat was by the Prieſt ſent out of the Temple, he went to that mountain, and therefore the word *Azazel* ſeemeth to be compounded of *Ez*, a Goat, and *Azal Iuit*, that is, he went; for the Scape Goat went and carryed away the evill.

The *Grecians* call the female Goat ***Aix***, which ſeemeth to be derived of ***Ez*** the *Hebrew* word. The *Arabians*, *Dakb*, and *Metaham*, as I find in *Avicen*; the *Saracens*, *Anſe*; the *Italians*, *Pecchi*, changing B from the male into *P*; and the *Spaniards*, *Capron*; the *French*, *Cheuer* or *Chieuere*; the *Germans*, *Geiſs*; the *Illyrians*, *Koza*; and the ***Tuſcanes*** at this day call a female Goat *Zebei*. And this may ſuffice for the names of both male and female.

Artumnus.

Their nature is to be declared ſeverally, except in thoſe things wherein they agree without difference: and firſt of all, the male is rightly termed *Dux & maritus Caprarum*, the guide and husband of the females, and therefore *Virgil* ſaith of him not improperly, *Vir gregis ipſe Caper*, The He-goat is the husband of the flock: and except in his genitals and horns, he differeth not in any proportion or ſubſtance from the female. His horns are longer and ſtronger then are the females, and therefore upon provocation he ſtriketh through an ordinary piece of Armor or Shield at one blow: his force and the ſharpneſs of his horns are ſo pregnable. He hath many attributes among the learned, as left-ſided, aged, greedy, bearded, ſwift, long-legged, horn-bearer, captain of the flock, heavy, rough, hoarſe-voiced, rugged, unarmed, unclean, ſtrong-ſmelling, lecherous, briſtler, wanderer, vile, wanton, ſharp, ſtinking, two-horned, and ſuch like: whereby his nature and qualities are ſo deciphered, as it needeth no long treatiſe of explication.

Their ſeveral parts.

The Epithets of Goats.

There is no beaſt that is more prone and given to luſt then is a Goat, for he joyneth in copulation before all other beaſts. Seven dayes after it is yeaned and kiddened, it beginneth and yeeldeth ſeed, although without proof. At ſeven moneths old it engendereth by procreation, and for this cauſe that it beginneth ſo ſoon, it endeth at five years, and after that time is reckoned unable to accompliſh that work of nature. When the *Egyptians* will deſcribe fecundity or ability of generation, they do it by picturing of a male Goat.

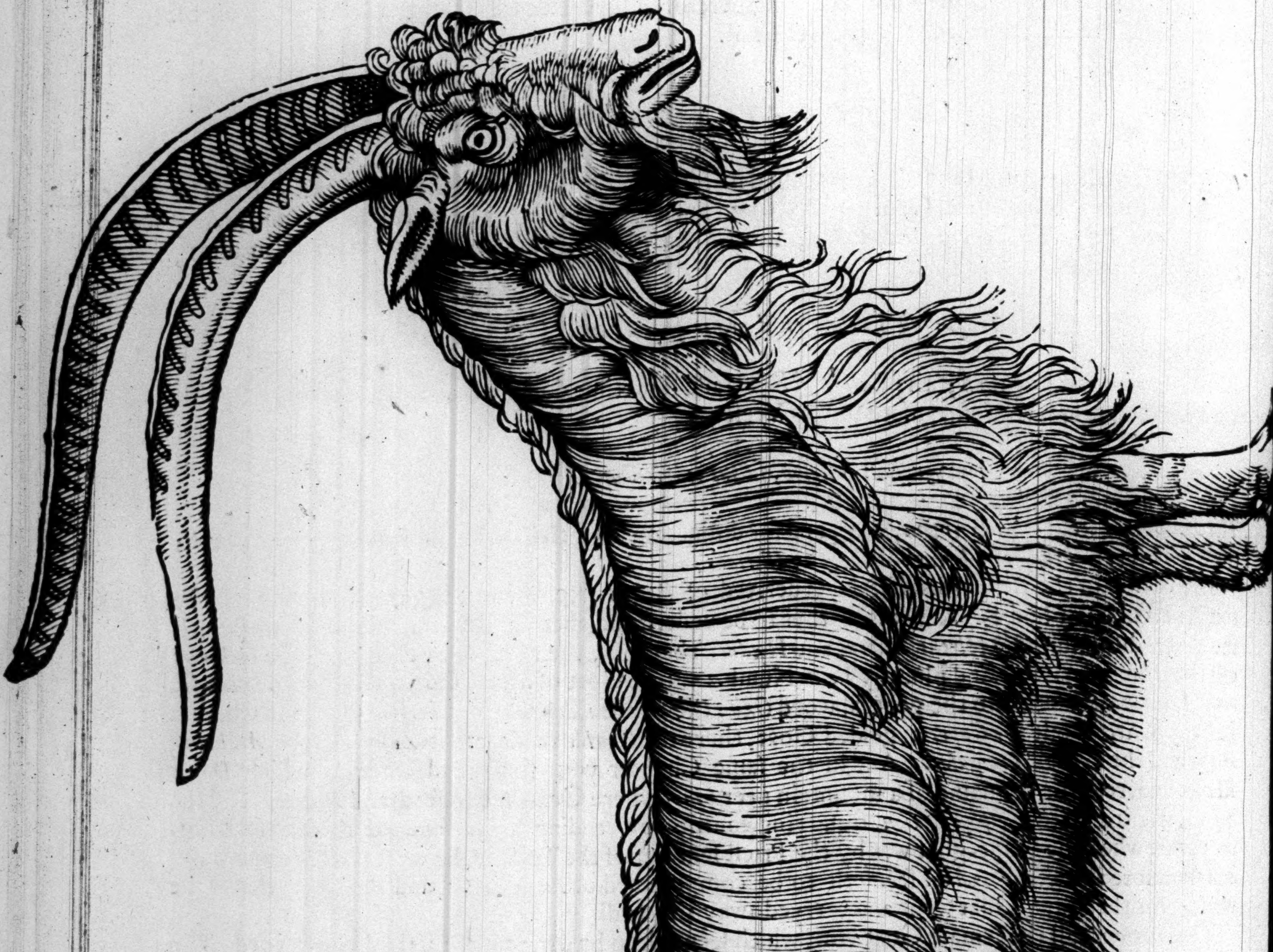
The venereous diſpoſition of Goats.

Ælianus.

That which is moſt ſtrange and horrible among other beaſts is ordinary and common among theſe, for in them ſcarce the Brother joyneth with the Siſter, and a Camel can never be brought to cover his Dam: but among theſe the young ones being males, cover their Mother, even while they ſuck their milk. If they be fat, they are leſſe venereous then being macilent or lean. *Herodotus* declareth that in his time a Goat of *Mendeſia* in *Egypt*, had carnal copulation with a woman in the open

Columella.

ſight of men, and afterward was led about to be ſeen. When they deſire copulation they have a proper voice wherewithal (as it ſeemeth) they provoke the female to love. This is called it in *Italy*, *Biccari* and *Biccarie*, which the *Venetians* apply to all lecherous companions as commonly as a proverb, and this they never uſe but at that time. By reaſon of his luſt, his eyes ſink deep into the corners of their holes (called *Hirqui*) and *Apuleius* with other *Grammarians* do derive the word *Hircus*, whereby this beaſt is called, from that diſpoſition.



By drinking ſalt water they are made deſirous and apt to procreation. At that time they fight mutually one with another for their females, and it is a term among the late writers, to call thoſe men *Hirci*, Goats, which are contented to permit other men to lie with their wives in publick, before their own faces for gain, becauſe they imagine that ſuch is the property of Goats. But I know not with what reaſon they are moved hereunto, for there is a memorable ſtory to the contrary.

Cælius.

In *Sibaris* there was a young man called *Crathis*, which being not able to retain luſt, but forſaken of God, and given over to a reprobate ſenſe, committed buggery with a female Goat, the which thing the maſter Goat beheld and looked upon, and diſſembled, concealing his mind and jealouſie for the pollution of his female. Afterward finding the ſaid young man aſleep, (for he was a Shepherd) he made all his force upon him, and with his horns daſhed out the buggerers brains. The man being found dead on this manner; and the Goat which he had raviſhed delivered of a monſter, having a Mans face, and a Goats legs, they call it *Silvanus*, and place it in the rank of idoll Gods, but the wretched man himſelf was buried with more honour then beſeemed, for they gave him a noble funeral, and finding a River in *Achaia* which mingled water with another, they called it *Crathis*, after the name of that unnatural and beaſtly monſter; whereupon alſo came the *Italian Crathis* which *Strabo* remembreth. By which ſtory it is evident, that jealous rivality reſteth as well in Goats as in Men of more reaſonable capacity and underſtanding.

A memorable ſtory of the puniſhment of buggery.

The females deſire of copulation is no leſſe then the males, for while they ſuck they admit the male, and at the ſeventh month they conceive. The beſt time of their admiſſion to procreation is about the end of Autumn (according to *Columella* his opinion) They are not filled the firſt day of copulation, but the ſecond or third, and thoſe which are joyned in *November* do bring forth their young in the Spring when all things grow freſh and green: wherefore if they chance to be ſlack, and not willing to engender or couple, their keepers uſe this ſleight or policy, to procure and ſtir up their luſt. They rub their udders with Nettles untill they conſtrain bloud, and afterward with a handful of Salt and Nitre, or elſe with Pepper or Myrrhe; after which rubbing, their deſire of copulation much increaſeth, and it maketh the female to provoke the male and undergo him more willingly; and this thing alſo procureth in them aboundance of milk (as *Ariſtotle* affirmeth) he had ſeen tryed by making experiment thereof upon the breſts of Women, Virgins, and Widows: And generally all the keepers of Cattel do herewith rub their genitals, for the furthering and provoking in them carnal copulation, with the things aforeſaid.

Cælius.
Strabo.
The luſt of the females and their copulation.

Means to ſtir up the Goats to copulation.

Ælianus.

They being filled and with young, they carry them in their belly five moneths before deliverance. After three years old the female ceaſeth to retain in her ſelf or confer to her Kids the ſtrength of nature, and the male after four, ſo that it is not a part of good husbandry to keep their young which they bring forth after thoſe years, but rather to kill them and make them away: So alſo it is not good to keep their firſtings, or thoſe which are firſt of al engendred, but rather the ſecond or third ſeed of procreation. Some of them bring forth twins, and ſome more, as it is reported of the Goats of *Egypt*, which bring forth five at a time, becauſe they drink of the fruitful river of *Nilus*: for the Goatherds of the Countrey do give thereof to their Cattel, and fetch it into all parts of that region, and in *Illyria* they breed twice a year, bringing ſometime three, four, or five at once, but three at a time are never to be kept, but killed and eaten, for they are accounted not worth their bringing up; only cold maketh them to ſuffer abortments, and ſometimes they bring forth monſters like to other Cattel (for all little beaſts are more apt to engender monſters then the greater.)

Florentinus.
The time of their going with young.

The multiplication of yong Kids.
Ælianus.
Ariſtotle.

Concerning the time that they bear young, it is in *Italy* eight years, and being fat they are not apt to conceive, wherefore they make them lean before they admit them to their bucks. One male is ſufficient for ten females, and ſome (ſaith *Varro*) provide but one for 15 (as *Menas*) and other but one for 20 (as *Murus*.) There is no creature that ſmelleth ſo ſtrongly as doth a male Goat, by reaſon of his immoderate luſt, and in imitation of them the *Latins* call men which have ſtrong breaths (*Hircoſi*) Goatiſh: wherefore *Plautus* ſaith to an old lecherous fellow which could not keep his lips from ſlavering of women,

The time of their young bearing.
The ſtrong ſmell or ſavour of a Goat.
In Mercat.

Cum ſis jam ætatis plenus, anima fœtida,
Senex hircoſe tu oſculere mulierem.

And therefore *Tiberius Cæſar* who was ſuch a filthy and greaſie-ſmelling old man, was called (*Hircus vetulus*) an old Goat, in the *Atellanican Comœdie*. They conjecture of men that have hairy legs to be unchaſt and full of luſt, by reaſon of their ſimilitude with a Goat, and thoſe which have a ſhril and clamorous voice, the *Grecians* call *Margoi*, (that is, blockheads.) Thoſe which have eyes like to Goats they call *Aegopoi*, Goat-eyes, that is very red eyes. The *Egyptians* affirm that their female Goats when *Sirius* the Star in the beginning of Dog-dayes riſeth with the Sun, do continually look upon the Eaſt, and that their attentive obſervation is a moſt certain argument of the revolution, that is the appearance and departure of the ſaid Dog dayes. The like things do the *Lybians* report of their Goats concerning that Star, and moreover that they foreſee and foreſhew change of weather, for they depart from their ſtables, and run wantonly abroad before ſhowers, and afterward having well fed of their own accord return to their folds again.

Plutarch.
A ſecret in female Goats.

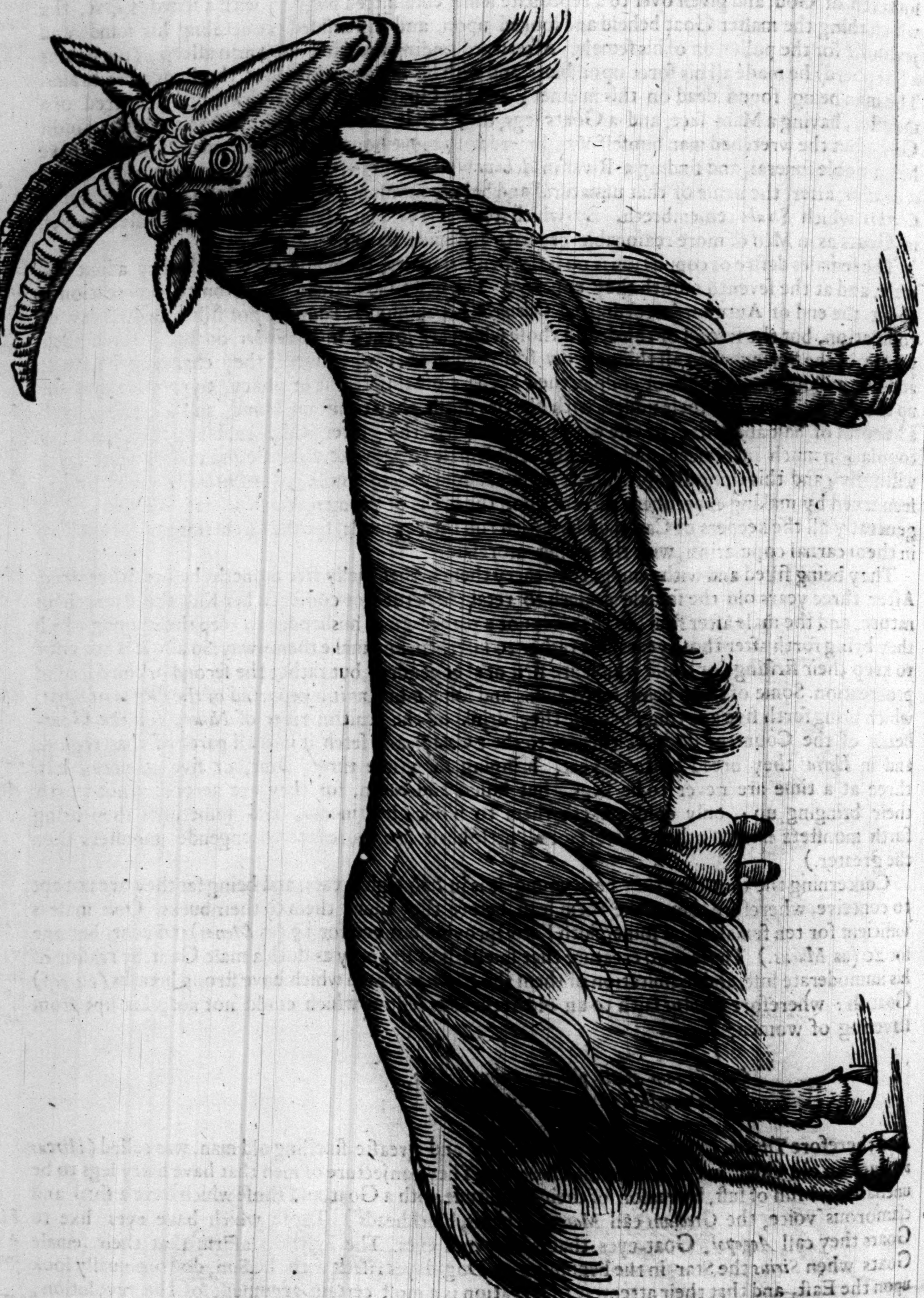
Ælianus.

Concerning the deſcription of their ſeveral parts, it is good to follow the direction of *Caſſinius*, firſt to look to their age (as is before ſaid) if men deſire to provide Goats for herd-breed and

The deſcription of Goats and their beſt properties.

profit, ſo as their Kids may be like them, and they bear young or continue procreation eight years at the leaſt. And for their outward parts, let them be firm, great, well compacted, full of muſcles, and the ſuperficies of their whole body be ſoft and equall, without bunches or indentures: therefore a thick hair, two dugs hanging under their ſnowt or chin, are good ſignes of the beſt Goats.

Lorentius.



The ſeveral kinds of Goats *Albertus.*

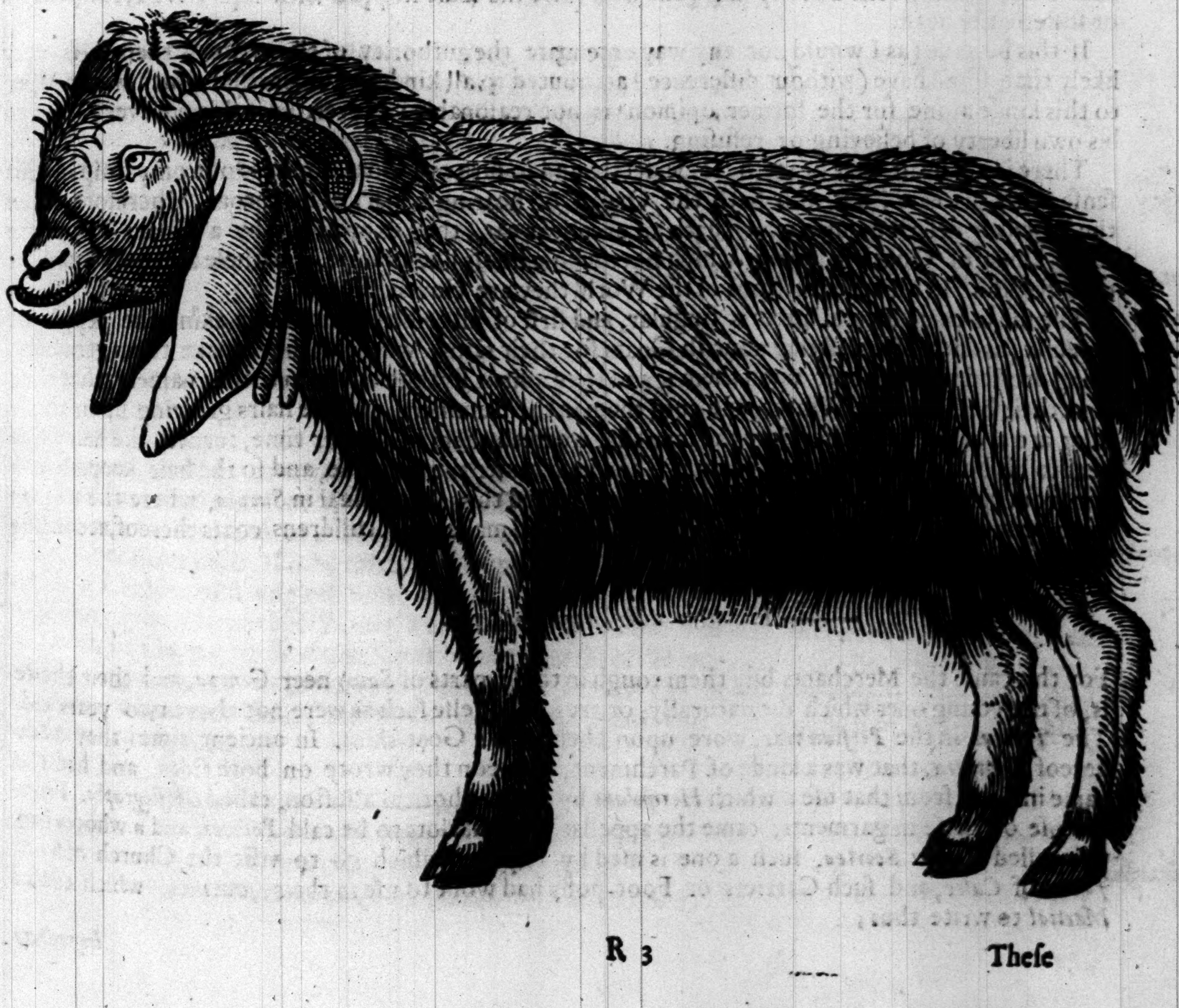
There are two kindes of Goats, one horned, and of this ſort the long ſharp-horned beaſts, with broad foreheads, are the moſt approved, and by the circles of their horns their age is diſcerned: But the unhorned are beſt for breed, procreation and milk, and ſuch are the *Caſpian* Goats, which are for the moſt part white, flat noſed, and little of growth. Their eyes are very deep in their heads, and therefore their ſight ſharp, ſtrong and continual ſeeing bright and clear in the night, but the colour of their eyes variable, like to the colour of their bodies; The males have more teeth then the females, for the females want their upper teeth: But males and females have large beards under their chins, and this is called *Aruncus* (ſaith *Eryngus*) but the reaſon hereof is, becauſe that when a Goat is taken by the beard and drawn out of the fold, all the reſidue ſtand amazed, and ſo alſo when any of them hath eaten Sea-holly (cald *Eryngium*:) ſo that *Ariſtotle* confoundeth *Eryngium* for *Aruncum*, and ſo taketh one for another. Once in *Lemnos* there was a male Goat which had ſo much milk wrung out of his paps growing betwixt his legs, that therewith a Calf, by licking it received the beeſtings, but afterward the male Kid begotten by the ſame Goat had the like udders, whereat the owner being much amazed, becauſe it was a prodigious thing, for his ſatisfaction asked counſel at the Oracle, from whom he received this anſwer, that it betokened nothing but plentiful encreaſe of his Cattel. The females have two udders under their loins next to the ſmall of their belly, except the *Lybian* Goats, and their udders lie under their breaſt or forepart of their belly, like an Apes. In *Naxus* the Goats have greater Gals then in any other part of the world, and the forepart is held prodigious: On the contrary, in *Chalcis* the Goats have no gall at all. They have many bellies and a round Milt, which thing no other horned-beaſt hath, except a Sheep. The males have harſher hairs then their females, and the *Lybian* Goats have hair as long as womens, and very rough curled, which the inhabitants ſhear off every year, and therewith the Ship-wrights make cable ropes: but in *Cilicia* and *Phrygia*, they ſhear them and make the ſtuffe called *Zambelot*: and another kinde of Cloth called *Mathaliaze*. In *Arabia* they make Tents of Cloth compiled of Aſſes and Goats hair, and it ſeemeth that *Cilicia* received his name of this kinde of Cloth, which is called in *Latin*, *Cilicium*, or elſe that this Cloth was firſt invented among them, whereupon it received that denomination; but among the *Grammarians* and Poets, *Lana Caprina* (Goats wool) grew to a proverb, to ſignifie a thing of no weight or moment, as it is in *Horace*;

Ælianus.
Pliny.
Orthagorus.
Ariſtotle.
Naxus.
Ælianus.
Of the *Cilician* Cloth made of Goats hair.
Bellnu.

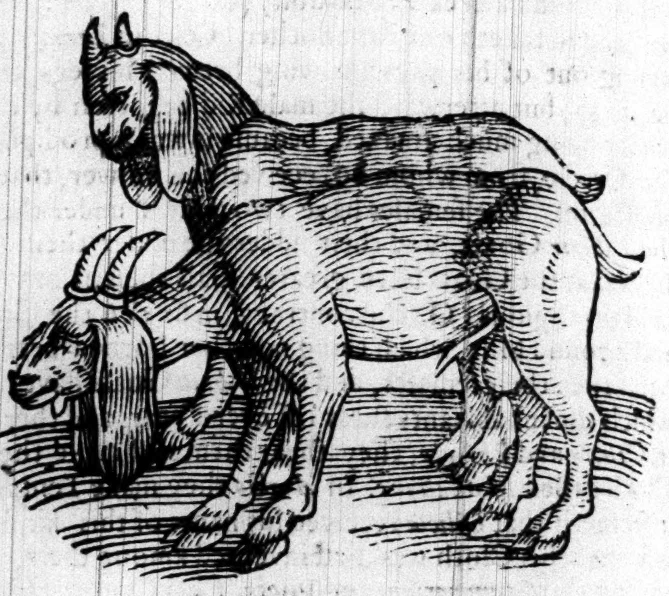
Alter rixatur de lana ſæpe caprina,
Propugnat nugis armatus——

There are another ſort of Goats which are called *Syrian* Goats, and of ſome *Mambrin* Goats, and moſt commonly *Indian* Goats, becauſe they are moſt noble in that Countrey, and that in *Coytha*; and likewiſe in the Region of *Damiata*, for *Mambre* is a Mountain neer *Hebron*, from whence it is probable, that the word *Mambrin* cometh; wherefore I have thought good to expreſſe the figure both of the greateſt of that kinde, as it was taken by *Antonius Muſa Braſovalus*, Phyſitian to the Noble Duke *Hercules de Eſte*, at *Ferraria*, by one of theſe Goats brought thither to be ſeen.

Of the *Membrin* or *Syrian* Goats.



Theſe leſſer were found pictured in an old manuſcript in *Germany*, which book did intreat of the Holy Land. The greater Goat I conjecture to be the ſame which *Leo Afer* calleth *Adimain*, and is found in *Mauritania*, being as tall as an Aſſe, and hath very long broad ears pendant, and under them next to their necks two things like dugs or paps, which hang down from their throat, and theſe are moſt fruitful in milk, and with theſe the *Lybians* plow, and keep them in ſtead of Kie and other Cattel, for they milk them, and of their milk make Butter and Cheeſe. Their hair is very ſhort, and they very gentle and familiar; ſo that the ſaid *Leo* affirmeth, that when he was a young man, and loved thoſe raſh and wanton ſports wherewithal youth are delighted, he got up upon one of theſe, and rode quietly upon the back of it above a quarter of a mile. They keep, being wilde, in the Deſerts of *Lybia*, and if at any time they ſtray or wander into *Numidia*, and the fields thereof, it is accounted by the people and inhabitants a prodigious and monſtrous thing.



The leſſer kinde I conjecture to be the right *Mambrine* or *Syrian* Goat, although ſome of the late writers call it an *Indian* Goat; the reaſon is, becauſe (as hath been ſaid) they call all ſtrange beaſts by the names of *Indians*, if they finde them not in their own Countrey. The ears of it are large and broad, as the picture deſcribeth, and ſuch ears have the Goats of *Gallia-Narbon*, being at the leaſt as broad as a mans ſpan; they are of colour like wilde Goats, their horns very ſharp, and ſtanding not far diſtant one from the other, and have ſtones like a ſtone Horſe, being in all other parts not unlike to the vulgar and common Goat.

Albertus.
How Goats take breath.
Varro.

Some curious herdſmen (as *Alcmæon* and *Archelaus*) have delivered to the world, that Goats take breath through their ears; and *Phyles* approveth their conceit, becauſe he had ſeen an experiment of a Goat, that his mouth and noſtrils being ſtopped faſt, nevertheleſs he ſeemed not to be troubled for want of breath: and for this alſo is alleadged the authority of *Oppianus*, who writeth of certain Goats (called *Aegari*) that they have a certain hole or paſſage in the middle of their head, betwixt the horns, which goeth directly unto the liver, and the ſame ſtopped with liquid Wax, ſuffocateth or ſtifleth the beaſt.

If this be true (as I would not any way extenuate the authority of the writer) then it is very likely that ſome have (without difference) attributed to all kindes of Goats that which was proper to this kinde alone, for the former opinion is not reaſonable: Nevertheleſs I leave every man to his own liberty of believing or refuſing.

Their quick ſenſe of hearing.
Horace.
Alex. Mind.

There is no beaſt that heareth ſo perfectly and ſo ſure as a Goat, for he is not only holp in this ſenſe with his ears, but alſo hath the Organ of hearing in part of his throat, wherefore when the *Egyptians* deſcribe a man which hath an excellent ear, they expreſs him by a Goat. There are ſome kinde of Goats in *Illyria* which have whole hoofs like a Horſe, and theſe are only found in that Region. In all other Nations of the World they are cloven footed.

The uſe of their ſeveral parts.

The uſe of their ſeveral parts is ſingular, and firſt of all to begin with their skin, the people of *Sardinia* (as ſaith *Nymphidorus*) nouriſh Goats for their skins, whereof they make them garments, being dreſſed with the hair upon them; and they affirm ſtrange virtue in them, namely, that they heat their bodies in the Winter, and cool them in the Summer; and the hairs growing upon thoſe skins are a cubit long, therefore the man that weareth them in Winter time, turneth the hairy ſide next to his body, and ſo is warmed by it; and in Summer the raw ſide, and ſo the hair keepeth the Sun from piercing his skin and violence of heat: And this alſo is uſual in *Suevia*, where the women wear garments of Goats hair in the Winter, and alſo make their childrens coats thereof, according to *Virgils* ſaying in *Moreto*,

Suidas.
Varinus.

——*Et cinctus villoſæ tegmine Capræ.*

For this cauſe the Merchants buy them rough in thoſe parts of *Savoy* neer *Geneva*, and their choice is, of the young ones which die naturally; or are kild, or elſe ſuch as were not above two years old.

Baſſius.

The *Tyrians* in the *Perſian* war, wore upon their backs Goat-skins. In ancient time they made hereof *Dipthera*, that was a kinde of Parchment, whereon they wrote on both ſides, and had the name in *Greek* from that uſe: which *Hermolaus* by a metaphorical alluſion, called *Opiſtographi*. From the uſe of theſe in garments, came the appellation of harlots to be cald *Pellices*, and a whores bag was called *Penula Scortea*, ſuch a one is uſed by Pilgrims which go to viſit the Church of Saint *James* of *Calec*, and ſuch Carriers or Foot-poſts had wont to uſe in their journies, which cauſed *Martial* to write thus;

Ingrediare viam cœlo licet uſq; ſereno,
An ſubitas nuſquam ſcortea cepit aquas.

The Sandals which men were wont to wear on their feet in the Eaſt Countries, were alſo made of Goats skins, and there was a cuſtome in *Athens*, that men for honour of *Bacchus*, did dance upon certain Bottles made of Goats skins, and full of wind, the which were placed in the middeſt of the Theatre, and the dancer was to uſe but one leg, to the intent that he might often fall from the ſlippery bottles, and make the people ſport; whereunto *Virgil* alluded this ſaying;

Mollibus in pratis unctos ſaliere pro utres.

Pliny.

There is alſo a *Ladanum* tree in *Carmania*, by the cutting of the bark whereof there iſſueth forth a certain gum, which they take and preſerve in a Goats skin; their uſe in War wherein the Souldiers were wont to lie all Winter, and therefore we read that *Claudius* the Emperour had given him thirty tents of Goats skins for his Souldiers attend upon the Judges, and the Mariners alſo by theſe defended themſelves from the violence of ſtorms upon the Sea: and ſo I leave this part of the beaſt, with remembrance of that which is written in holy Scripture, Heb. 11. that the people of God in ancient times did flee away from the rage of ſuperſtition, being anparelled, or rather meanly diſguiſed in Goat skins, being charitably holped by the beaſts, that were cruelly put to death by wretched men.

The milk of Goats.

In the next place the milke of Goats cometh to be conſidered, for that alſo hath been, is, and will be of great accouut for Butter and Cheeſe, which the Writers call *Tyropœia*, and *Virgil* celebrateth the ſingular commendation both of the Wool and of the Milke, in theſe Verſes;

Hæc quoque non cura nobis leviore tuenda,
Nec minor uſus erit, quamvis Mileſia magno
Vellera mutentur Tyrios incocta rubores.
Denſior hinc ſoboles, hinc largi copia lactis;
Quo magis exhauſto ſpumaverit ubere mulctra,
Læta magis preſſis manabunt flumina mammis.
Nec minus interea barbas, incanaque menta
Cyniphii tondent hirci ſetaſque comantes
Uſum in Caſtrorum: & miſeris velamina nautis.

To increaſe Goats milk. *Albertus.* A ſecret in the milk of Goats. *Myrepſus.*

Therefore their Milk is profitable for Butter, although inferior to a Cows, yet equal to a Sheeps, and the herdſmen give their Goats ſalt before they be delivered of their young, for this maketh them to abound in milk. Others with Goats milk preſerve their Wine from corruption by ſowreneſs; firſt they put into their Wine the twentyeth part ſo much as is of the Wine, and ſo let it ſtand in the ſame veſſell covered three or four dayes, afterward they turn it into a ſweet and freſh veſſel, and ſo it remaineth preſerved from all annoyance of ſowreneſs.

Cheeſes made of Goats milk were wont to be called *Velabrenſes Caſei*, becauſe amongſt the *Romans* they were made at *Velabrum*, and that with ſmoak, whereupon *Martial* made this *Diſtichon*;

Non quemcunque focum, nec fumum caſeus omnem,
Sed Velabrenſem qui bibit, ipſe ſapit.

Ariſtotle and *Julius Pollux* do commend the *Sicilian* Cheeſe, which was made of Sheep and Goats milke together, and by *Athenæus* it is called, *Caſeus Tromilicus*, and by *Simonides Stromilius*. In *Rhætia* of *Helvetia* there are excelent Cheeſes made of Goats milk and Cow milk mixed together. The milk alſo of a Goat mixed to a Womans milk is beſt for the nouriſhment of man, becauſe it is not too fat; yet *Galen* ſaith, if it be eaten without Hony, Water, and Salt, it curdleth in the belly of a man like a Cheeſe and ſtrangleth him; and being ſo uſed it purgeth the belly: from thence came the fiction of the Poets, that *Jupiter* was nourſed by a Goat, and that afterward in his War againſt the *Titanes* or Giants, he ſlew that Goat by the counſel of *Themis*, and wore her skin for an armor, and ſo having obtained victory, placed the Goat among the Stars, whereupon ſhe was called *Aix ourania*, a heavenly Goat, and ſo *Germanicus Cæſar* made this Verſe upon him, and *Jupiter* himſelf was called *Aigiochus*.

Hermolaus.

——— *Illa putatur*
Nutrix eſſe Jovis, ſi verè Jupiter infans
Ubera Cretææ ſuxit fidiſſima Capræ,
Sydere quæ claro gratum teſtatur alumnum.

Agiochus.

The

Of the fleſh of Goats.

The fleſh of male Goats is not wholeſome for mans body, but the fleſh of a female in the Spring and Fall of the leaf, by reaſon of the good nouriſhment may be eaten without danger. They are worſe then Bull-beef, becauſe they are ſharper in concoction and hotter, wherefore if they digeſt not well, they increaſe melancholy. The liver of a Goat being eaten, doth bring the Falling ſickneſs; yet being ſalted a good ſpace, and then ſod with Vine-branches, or other ſuch broad leaves, to keep them aſunder, and ſome Wine poured into the Water when they almoſt ſod, they become are very which and delicate meat; and thereſore the *Athenians* praiſed the *Lacedemonians*, that in their feaſt ſweet they called *Copidæ*, they ſlew a Goat; and held it for a divine meat.

Alſo *Clitomachus* an *Academick* of *Carthage*, relateth of a certain *Thebane* Champion, which excelled in ſtrength all the Champions of his time, and that he did eat continually Goats fleſh, for it is very ſtrong. and remaineth a long ſeaſon in the body, and doth much good being digeſted, notwithſtanding the ſtrong and rank ſmell thereof, otherwiſe it is dangerous, as is already ſaid, therefore *Fiera* having commended the Kyd, when he cometh to ſpeak of the Goat he writeth thus:

Cum male olet ſiccat, fit jam caper improbus, abſit,
Et cadat ante focos victima Bacche tuos.

Aegineta. Albertus.

But *Pliny* affirmeth, that if a male Goat eat Barley bread, or Parſneps waſhed, the ſame day that he is killed, then there is no poyſon in his fleſh: the ſtones of a Buck goat, reſiſt concoction, and beget evill humors in the body: wherefore ſuch a banquet is called in *Greek* (*Tragos Hulibertas*) for Goats after their copulation, have an evill fleſh, not fat, but dry, and the remedy to make their fleſh ſweeter, is to geld the male when he is young and tender, for ſo his temperature is amended by a cold and moiſt conſtitution.

Textor.

The Inhabitants of **Portugal** eat Goats fleſh, and account it delicate meat; eſpecially ſuch as dwell in the Mountains. In *Germany* they make of it a kinde of meat which is called *Klobuuſſt*, and is prepared on this manner: they take a Goats heart newly taken out of the body, and ſlit it into ſmall pieces, and break ſix Egges upon it, and the crums of white bread, ſeaſoned with ſpices and Saffron, and ſo put into a bag, and ſod or roaſted: afterward they are ſerved upon the table, and ſtrewed over with Kitchin Sugar.

The guts being ſalted, are called (*Hilla*) which the **French** ſtuffe like puddings, and call them (*Saulciſſes*) from whence cometh our *Engliſh* Sawſadge, of this ſewet and fat of Goats are the beſt candles made, becauſe it is hard and not over liquid. The bloud of a Goat hath an unſpeakable property, for it ſcoureth ruſty iron better then a file, it alſo ſoftneth an Adamant ſtone, and that which no fire is able to melt, nor iron to break, being of ſuch an invincible nature, that it contemneth all violent things, yet is it diſſolved by the warm bloud of a Goat. The Load-ſtone draweth iron, and the ſame being rubbed with garlick, dyeth and loſeth that property, but being dipped again in Goats-bloud, reviveth and recovereth the former nature.

Pliny. Hermolaus. Pauſanias.

Oſthanes preſcribeth for a remedy of love, the urine of a Goat to be mingled with Spikenard, and ſo drunk by him which is overcome with that paſſion, aſſuring him thereby that they ſhall fall in as great loathing as ever before they were in loving. With the hoofs of a Goat they drive away Serpents, and alſo with the hairs by burning and perfuming them in the place where the Serpents lodge. With the horns of Goats they make bows; for in *Delos* there was dedicated the horn of a Goat, which was two cubits long and a ſpan; and hereat ought no man to wonder, for that noble Bow of *Pandarus*, which *Homer* commendeth, was made of a horn of a female Goat.

Pallagdius. Archachines.

Varinus.

Affricanus declareth, that in ancient time they made fruitful their Vine-yards by this means: they took three horns of a female Goat, and buryed them in the earth with their points or tops downward, to the root of the Vine-ſtocks, leaving the hollow tops, ſtanding a little out of the ground, and ſo when the rain deſcended, it filled the horns, and ſoked to the root of the Vine, perſwading themſelves thereby that they received no ſmall advantage in their Grapes. The gall of a female Goat put into a veſſel, and ſet in the earth, is ſaid by *Albertus* to have a natural power to draw Goats unto it, as though they received great commodity thereby. Likewiſe, if you would have white hairs to grow in any part of a Horſe; ſhave-off the hair and anoint the place with a gall of a Goat, ſo ſhall you have your deſire. The *Sabæans*, by reaſon of continual uſe of Myrrhe and Frankincenſe, grow to a loathing of that ſavour: for remedy of which annoyance, they perfume their houſes by burning ſtorax in Goats-skins. And thus much for the ſeveral parts of a Goat.

There were in ancient time three kindes of Heardſ-men which received dignity one above another; the firſt were called (*Bucolici*) Neat-heard, becauſe they keep the greater Cattel: the ſecond were (*Opiliones*) Shepheards, of their attendance upon Sheep: the third, laſt, and loweſt kinde, were termed *Aepoli*, and *Caprarii*, that is, Goat-heards, or Keepers of Goats, and ſuch were the *Locrenſians*, who were called *Ozolæ*, becauſe of their filthy ſmell, for they had the moſt part of their converſation among other Beaſts.

A Goat-heard or Keeper of theſe Cattel muſt be ſharp, ſtern, hard, laborious, patient, bold and chearful, and ſuch a one as can eaſily run over the Rocks through the Wilderneſs, and among the buſhes without fear or grief, ſo that he muſt not follow his flock like other heards, but go before them: they muſt alſo be light and nimble, to follow the wandering Goats, that run away from their fellows, and ſo bring them back again, for Goats are nimble, moveable, and inconſtant, and therefore apt to depart away, except they be reſtrained by the herd and his Dog. Neither have Goats a Captain or Bell-bearer like unto Sheep, whom they follow, but every one is directed after his own will, and herein appeareth the pride of this Beaſt, that he ſcorneth to come behinde either Cattel, or Sheep, but always goeth before; and alſo in their own herds among themſelves, the Buck goeth before the female for the reverence of his beard, (as *Ælianus* ſaith) the labour of the Goat-herd muſt be to ſee his Cattel well fed abroad in the day time, and well ſoulded at night; the firſt rule therefore in this husbandry is to divide the flocks, and not to put any great number of them together, for herein they differ from Sheep, who love to live together in multitudes, as it were affecting ſociety by which they thrive better, and mourn not ſo much as when they are alone: but Goats love ſingularity, and may well be called Schiſmaticks among Cattel, and therefore they thrive beſt lying together in ſmall numbers, otherwiſe in great flocks they are ſoon infected with the peſtilence, and therefore in *France*, they care not to have *Magnos Greges, ſed plures*: not great flocks, but many.

The number of their flock ought not to exceed fifty, whereupon *Varro* writeth this ſtory of *Gabius* a *Roman* Knight, who had a field under the Suburbs containing a thouſand Akers of paſture ground, who ſeeing a poor Goat-herd bring his Goats every day to the City, and received for their milk a peny a peece, he being led with covetouſneſs, proponed to himſelf this gain, that if he ſtored his ſaid field with a thouſand Milch-female-goats, he alſo ſhould receive for their milk a thouſand pence a day; whereupon he added action to his intent, and filled his field with a thouſand Goats, but the event fell out otherways then he expected: for in ſhort time the multitude infected one another, and ſo he loſt both milk and fleſh: whereby it is apparent, that it is not ſafe to feed great flocks of theſe Cattel together.

In *India* in the Region *Coitha*, the Inhabitants give their Milch-goats dryed fiſhes to eat, but their ordinary food is leaves, tender branches, and boughs of trees, and alſo buſhes or brambles; whereupon *Virgil* wrote in this manner:

Paſcuntur verò ſilvas & ſumma Lycæi,
Horrenteſque rubos & amantes ardua dumos.

They love to feed on the Mountains better then in the Vallies and green Fields; always ſtriving to lick up the Ivie or green plants, or to climbe upon trees, cropping off with their teeth all manner wilde herbs, and if they be reſtrained and encloſed in fields, then they do the like to the plants that they finde there; wherefore there was an ancient law among the *Romans*, when a man let out his ground to farm, he ſhould always condition and except with the Farmer that he ſhould not breed any Goat in his ground, for their teeth are enemies to all tender plants: their teeth are alſo exitiable to a tree, and *Pliny* and *Varro* affirm, that the Goat by licking the Olive-tree maketh it barren; for which cauſe in ancient time, a Goat was not ſacrificed to *Minerva* to whom the Olive was ſacred.

There is no creature that feedeth upon ſuch diverſity of meat as Goats, for which cauſe they are elegantly brought in by *Eupolis* the old Poet, bragging of their belly chear, wherein they number up above five and twenty ſeveral things, different in name, nature, and taſte: and for this cauſe *Euſtathius* defended by ſtrong argument againſt *Diſarius*, that men and cattel which feed upon divers things, have leſs health then thoſe Beaſts which eat one kinde of fruit alone. They love Tamerisk, Aldern, Elm-tree, Aſſaraback, and a tree called *Alaternus*, which never beareth fruit but only leaves: alſo three-leaved-graſs, Ivie, the herb *Lada*, which groweth no where but in *Arabia*, whereby it cometh to paſs, that many times the hair of Goats is found in the gumb called *Ladanum*, for the peoples greedy deſire of the gumb, cauſeth them to wipe the juyce from the Goats beard.

For the increaſe of milk in them, give them Cinquefoyl five days together before they drink, or elſe binde Dittany to their bellies, or (as *Lacuna* tranſlateth the words out of *Alricanus*) you may lay milk to their bellies, belike by rubbing it thereupon. The wilde Goats of *Creet*, eat Dittany aforeſaid againſt the ſtrokes of Darts: and *Serapion* avoucheth by the experience (of *Galen*), that Goats by licking the leaves of Tamarisk, loſe their gall; and likewiſe that he ſaw them licking Serpents which had newly loſt their skins, and the event thereof was, that their age never turned or changed into whiteneſs or other external ſignes thereof.

Ariſtotle.

Alſo it is delivered by good obſervation, that if they eat or drink out of veſſels of Tamarisk, they ſhall never have any Spleen; if any one of them eat Sea-holly, the reſidue of the flock ſtand ſtill and will not go forward, till the meat be out of his mouth. The *Grammarians* ſay that *Chimæra* was killed by *Bellerophon* the ſon of *Glaucus*, in the Mountain *Lycius*, and the reaſon hereof is, that the Poets faigned *Chimera*, to be compoſed of a Lyon, a Dragon, and a Goat, and in that Mountain all thoſe three were kept and fed: for in the top were Lyons, in the middle were Goats, and alſo at the foot thereof Serpents. If they ſuffer heat or cold they are much endangered, for ſuch is their nature that they avoid all extremity, and the females with young are moſt of all moleſted with cold; if they have conceived in the Winter, then many Abortments or caſting their young followeth.

Conſtantinus.

Ælianus.

In like ſort it hapneth if they eat Walnuts (and not to their full) unripe, therefore either they muſt be ſuffered to eat of them to ſaciety, or elſe they are not to be permitted to them.

Dioſcorides.
Pliny.

If at any time the eat Scammony, Hellebore, Leſſeron, or Mercury, they are much troubled in their ſtomach, and loſe their milk, eſpecially the white Hellebore. The Publicans in the Province of *Cyrene*, have all the government of the paſtures,and therefore they permit not Benzwine to grow in their Countrey, finding thereby great gain; and if at any time their Sheep or Goats meet with any branch thereof, they eat it greedily, but the Sheep immediately fall to ſleep, and the Goats to Neezing. *Ægolethros* and *Sabine* are poyſon to Goats. The Herb called in *Greek*, *Rhododendron*, and may be *Engliſhed* Roſe-tree, is poyſon to Goats, and yet the ſame helpeth a man againſt the venome of Serpents.

Horus.

The prickle or ſpindle tree (called alſo *Euonymus*) which groweth in the Mount *Occynius* called *Ordyno*) about the bigneſs of a Pine-apple-tree, having ſoft leaves like the ſame, and it buddeth in *September*, and the flower is like to a white Violet flower, this killeth Goats, except they be purged with black Hellebore immediately after they have eaten thereof. The *Egyptians* when they will deſcribe a man devouring Sheep or Goats, they picture the herb *Curilago* or *Conyza*, becauſe it alſo killeth them. Alſo as *Clodryſippus* affirmeth they avoid Cumin, for it maketh them mad, or bringeth upon them Lethargies, and ſuch like infirmities.

Ælianus.

He avoideth alſo the ſpettle of man, for it is hurtful to him,and to the Sea-fiſh *Scolopendra*,and yet he eateth many venemous herbs and groweth fat thereby; and this alſo may be added, that Goats grow fat when they are with young, but by drinking of Honey they are weakned, and indangered of death. Concerning their drink, it is neceſſary for a skilful Goat-herd to obſerve the nature of the beaſt, and the beſt time and place of their watering, according to the ſaying of *Virgill*:

——Jubeo frondentia Capris
Arbuta ſufficere, & fluvios præbere recentes.

Ariſtotle.
Mendius.
Ælianus.

In the Summer they are to be watered twice a day, and at other times once only in the afternoon: but it is reported of the Goats of *Cephalenia*, that they drink not every day like other Goats, but only once or twice in ſix months, and therefore they turn themſelves to the winde or cold air of the Sea, and by yawning, ſuck into their mouths or bellies that which ſerveth them in ſtead of water. When the Sun declineth, they ly and look not upon one another but on the contrary, and they which lodge in the fields take up their reſt amongſt their acquaintance. But if they be uſed to fold or houſe, they remember it, and repair thither of their own accord, which thing cauſed the Poet to write in this manner:

Atque ipſæ memores redeunt in tecta, ſuoſque
Ducunt: & gravido ſuperant vix ubere limen.

Columella.

Concerning their ſtables or houſes to lodge in, for their defence againſt the cold, the diligent herd-man muſt obſerve, that nothing muſt be laid under the Goat to ly upon, and it is beſt to make his ſtable upon ſtones, or ſome ſome ſuch hard floor, and the ſame muſt be kept and turned dry every day from the annoyance of their dung, for that hurteth their heads. It is good to ſet the window of their ſtable to the Sun, and from the winde, according to the counſel of *Virgil*;

Et ſtabula a ventis hyberno opponere ſoli,
Ad medium converſa diem,cum frigidus olim
Jam cadit extremoque irrorat Aquarius anno.

Although Goats be ſtronger then Sheep, yet they are never ſo ſound, for in buying and ſelling of them, he was never accounted a wiſe man, that either hoped to buy, or promiſed to ſell without fault. It was ſufficient in open Market places,when and where Goats were to be ſold, to promiſe, *Hodie capras recte eſſe & bibere poſſe & eas licite habere*, that is, that the day of their ſale they were well,and could drink, and they were his own, and it was lawful for him to have them.

But farther no man was urged,for (*Archelaus* ſaith) they are ever *Febricitantes*,becauſe their breath is hotter, and their copulation more fiery, and therefore their herdmen muſt not be unprovided of good and ſufficient medicine to help them, and not only againſt their natural diſeaſes, but alſo their continual horn-wounds which they give one another by their often fightings, and alſo when they aſpire to climbe upon ſteep and craggy pointed rocks or trees, they often fall and are wounded, in ſuch caſes they have no ſuch Phyſitian as their Keeper,whoſe bag and box muſt be as an Apothecaries ſhop to yeeld continual remedies to all their grievances.

Florentius.

The beſt means to preſerve them in health, next to a good diet and warm lodging, is, to plant *Alyſſon* neer to their ſtabling houſes. And their continual Ague ſpoken of before is profitable to their body, for when it departeth and leaveth them, preſently they periſh and dy. Sheep and Goats have a natural foreſight of the Peſtilence or Murrain, of Earth-quakes, and of wholeſome temperate weather, and of abundance and ſtore of fruits; but neither of both ſhall be ever infeſted by the Peſtilence, if you give them the powder of a Storks Ventricle or maw one ſpoonful thereof in water every day.

Quintilius.

And whereas all other kinde of Cattel when they are ſick, conſume and pule away by little and little, only Goats periſh ſuddenly, inſomuch as all that are ſick are unrecoverable, and the other of the flock muſt be inſtantly let bloud and ſeparated before the infection overſpread all; and the reaſon of their ſudden death, is becauſe of their aboundance of food, which miniſtreth ſpeedy flax for the fire of their diſeaſe to burn. At ſuch times they muſt not feed all the day long, but only thrice or four times a day be led forth to graſs, and brought in again to their ſtables.

If any other ſickneſs annoy them, they are to be cured with Reed, and the roots of white Thorn beat together with Iron Peſtles, and mingled with rain Water; and ſo given to the Cattel to be drunk: but if this medicine help not, then either ſell them away, or elſe kill them, and ſalt them till you minde to eat them. Goats are not troubled with Lice or Nits, but only with Tickes.

There is a certain Wine called *Melampodion*, the report is, that one *Melampos* a Shepherd had it revealed unto him, to cure the madneſs of Goats: it is made of black Hellebore, and Goats milk. Goats are alſo moleſted and ſubject to the Falling ſickneſs, and this is known by their voyce and cold moiſt brains; and therefore the *Roman* Prieſts were commanded to abſtain from touching ſuch Beaſts. *Cœlius.*

They are alſo troubled with the Gowt; the Female-goat eaſeth the pain of her eyes by pricking them upon a Bull-ruſh, and the Male-goat by pricking them upon a Thorn, and ſo pituitous matter followeth the prick, whereby the ſight is recovered without any harm done to the Apple; and from hence it is ſuppoſed, that the Phyſitians learned their *Parakenteſis* pricking of ſore eyes with a Needle. *Ælianus.*

The Females never wink in their ſleep, being herein like the Roe-bucks. There are certain Birds (called *Capri-mulgi*) becauſe of their ſucking of Goats, and when theſe or any of them have ſucked a Goat, ſhe preſently falleth blinde. If at any time ſhe be troubled with the Dropſie, an iſſue muſt be made under her ſhoulder, and when the humour is avoided, ſtop up the hole with liquid pitch. They drink the ſeed of *Seſelis* to make them have an eaſie deliverance of their young, and for that cauſe *Columella* preſcribeth a pinte of ſod Corn and Wine to be infuſed into their throats in that extremity; their other maladies being like unto Sheep, we will reſerve their deſcription and cure to that Hiſtory. *Pliny.*

Theſe Goats have in ancient times been uſed for Sacrifices, not only by the Soveraign command of Almighty God, but alſo by the practiſe of Heathen people; for their perfect ſacrifice which conſiſted of a Ram, a Goat, a Hog, and a Bull, was called *Hecatombe* and *Tryttis*. *Probus.*

The reaſon why Swine and Goats were ſacrificed among the Heathen, was, becauſe the Swine dig up the earth with their noſes, and root out the Corn, they were ſacrificed to *Ceres*; and the Goats ſpoil the Vines by biting, for which cauſe they ſacrificed him to *Bacchus*; that ſo the drunken God might be pacified with the bloud of that Beaſt, whoſe hallowed grapes he had devoured; whereupon the Poet writeth thus:

Sus dederat pænas: exemplo territus horum
Palmite debueras abſtinuiſſe, Caper.
Quem ſpectans aliquis dentes in vite prementem,
Talia non tacito dicta dolore dedit:
Rode caper vitem, tamen hinc cum ſtabis ad aras,
In tua quod ſpargi cornua poſſit, erit.

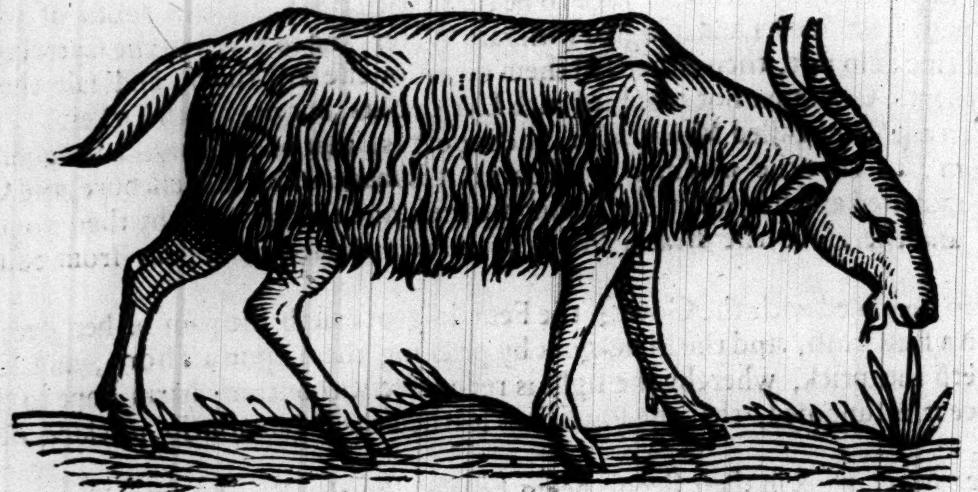
When they ſacrificed a Goat in *Græcia*, they tryed him by giving him Peaſe or cold water to drink, which if he refuſed, they alſo refuſed him for ſacrifice, but if he taſted it, they took and offered him.

Martiall having ſeen, or rather heard of a Countrey Prieſt, ſacrificing a Goat, and being aſſiſted by a Countreyman, when the Beaſt was ſlain, the Prieſt commanded the poor Countrey man to cut off the ſtones, *Teter ut immundæ carnis abiret odor*, to let the unwholeſome vapour of the unclean fleſh out of the body. Afterward the Prieſt being buſie about the Sacrifice, and ſtooping down to the carkaſs of the Beaſt, his cods appeared behinde him betwixt his legs, the which when the Countreyman ſaw, he ſuddenly cut them off with his ſharp knife, thinking that the ancient ceremony of faſting required this to be done: whereupon *Martial* wrote this Epigram,

Sic modo qui Tuſcus fueras, nunc Gallus aruſpex,
Dum jugulus hircum, factus es ipſe caper.

The *Mendeſians* worſhipped Goats both males and females, becauſe as they imagine they were like to their God *Pan*. The *Egyptians* alſo deified the male Goat for his genital members, as other Nations did *Priapus*. The *Gentiles* had alſo a brazen Goat, whereupon *Venus* rode in braſs, which picture they called (*Pandemon*) and *Venus* (*Epitragia*:) I think that luſt could not be better deſcribed then by this emblem, for venereous perſons will ſuffer their whores to do any diſgrace unto them, for their carnal pleaſure. And thus much for theſe male and female Goats, now follow the ſtories of the wilde Goats and the Kids in order. *Gyraldus.*

Of the GOAT called by *Pliny* a DEER.



THere is no man that ſhall ſee this Beaſt, but will eaſily yeeld unto my opinion, that it is a Goat, and not a Deer, the hair, beard, and whole proportion of body moſt evidently demonſtrating ſo much, neither is there any difficulty herein, except for the horns which turn forward at the point, and not backward, which thing yet ſwarveth not ſo much from a Goat as from a Deer, and therefore can be no good reaſon to alter my opinion. There are of this kinde, as Doctor Cay affirmeth, in the Northern part of *England*, and that figure which is engraven at *Rome* in a Marble pillar, being a remembrance of ſome Triumph which *Pliny* ſetteth forth, differeth in no part from this Beaſts deſcription and proportion: Yet I take it that it may be brought into *England* from ſome other Nation, and ſo be ſeen in ſome Noble mans houſe, but that it ſhould be bred there, I cannot finde any monument of authority, but I rather conjecture the ſame to be bred in *Spain*. Of theſe kindes there are three Epigrams in *Martial*, whereby is declared their mutual fights killing one another; their fear of Dogs, and their fleſh deſired both of men and beaſts.

The firſt Epigram deſcribing their wilful fight, one killing another, and ſo ſaving a labour to the Hunter, for they kill themſelves to his hand, is thus;

Frontibus adverſis molles concurrere damas
Vidimus, & fati ſorte jacere pari.
Spectavere Canes prædam, ſtupuitq; ſuperbus
Venator, cultro nil ſupereſſe ſuo.
Unde leves animæ tanto caluere furore?
Sic pugnant Tauri, ſic cecidere viri.

The ſecond Epigram is a Dialogue ſpeaking to the Emperour, who took care to encreaſe his game, ſeeing not only men were enemies to them, but they alſo to one another, whereupon he writeth this diſtichon;

Aſpicis imbelles tentent quàm fortia damæ
Prælia; tam timidis quanta ſit ira feris.
In mortem parvis concurrere frontibus audent,
Vis Cæſar damis parcere? mitte Canes.

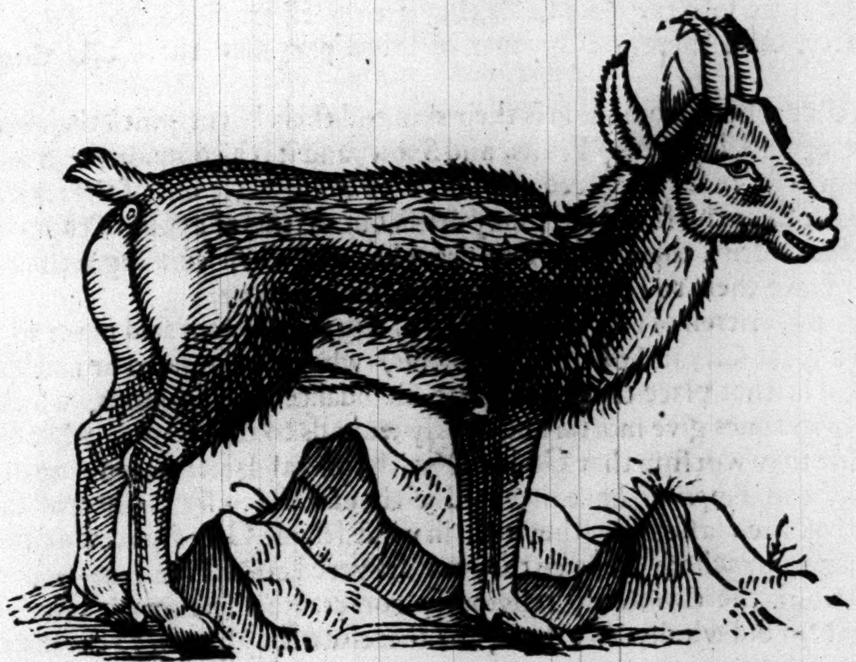
The third Epigram is a complaint of their weak and unarmed ſtate, having neither teeth like Bores, nor horns like Harts to defend themſelves, but lie open to the violence of all their enemies:

Dente timetur Aper, defendunt cornua cervum,
Imbelles damæ quid niſi præda ſumus?

Theſe are of a whitiſh yellow colour on the back, and are nouriſhed ſometime for the pleaſure, and ſometime for the profit of their poſſeſſors, for they will ſuffer hunting like a Deer, and alſo be tamed for milk like a Goat. And hereof I finde no other eſpecial mention among Authors, beſide that which is already rehearſed.

Of

Of the *WILDE GOAT*, and the Figure of the *Helvetian*, *Alpian*, *WILDE* or *ROCK-GOAT*.



Wilde-goats are transfigured into many ſimilitudes, and alſo diſperſed into many Countries beyond the Seas and in the *Alpes*, the picture of the *Alpine* wilde Goat is here ſet down. They are alſo to be found in *Italy*, in the Mountains of *Fiſcela* and *Tetrica*, in ſo much as the tame Goats which are nouriſhed there, are ſaid to be derived of theſe wilde Goats, theſe are called *Cynthian* Goats, becauſe they are bred in the Mountains of *Delos* called *Cynthus*. There are of theſe which are found in the tops of the *Lybian* Mountains as great as Oxen, whoſe ſhoulders and legs abound with looſe ſhaggy hair, their ſhins ſmall, their faces are round, their eyes are hollow and hard to be ſeen.

Varro.

Their horns crooking backward to their ſhoulders, not like other Goats, for they ſtand far diſtant one from another: and among all other Goats they are indued with a moſt ſingular dexterity of leaping, for they leap from one top to another, ſtanding a great way aſunder, and although many times they fall down upon the hard rocks, which are interpoſed betwixt the Mountains, yet receive they no harm: for ſuch is the hardneſs of their members, to reſiſt that violence, and of their horns to break their falls, that they neither are offended thereby in head nor legs.

Such are the Goats of *Soractum* as *Cato* writeth, which leapeth from Rock to Rock, above three-ſcore foot: of this kinde are thoſe Goats before ſpoken of in the Hiſtory of the tame Goat, which are thought to breath out of their ears, and not out of their noſtrils; they are very ſwift and ſtrong horned; the love betwixt the Dams and the Kids in this kinde, is moſt admirable; for the Dam doth moſt carefully educate and nouriſh her young; the young ones again, do moſt thankfully recompenſe their mothers carefulneſs, much like unto reaſonable men, which keep and nouriſh their own Parents in their old decrepit age, (which the love of God and nature doth enjoyn them) for ſatisfaction of their own education; ſo do theſe young wilde Goats, toward their own mothers: for in their age they gather their meat and bring it to them, and likewiſe they run to the rivers or watering places, and with their mouths ſuck up water, which they bring to quench the thirſt of their Parents: and when as their bodies are rough and ugly to look upon, the young ones lick them over with their tongues, ſo making them ſmooth and neat.

And if at any time the Dam be taken by the Hunters, the young one doth not forſake her till he be alſo inſnared: and you would think by the behaviour of the impriſoned Dam towards her young Kids, and likewiſe of the Kid towards his Dam, that they mutually contend one to give it ſelf for the other: for the Dam foreſeeing her young one to hover about her in the hands of her ennies, and continually to follow; with ſighs and tears ſeemeth to wiſh and perſwade them to depart, and to ſave themſelves by flight, as if they could ſay in the language of men, *Fugite filii infeſtos venatores, ne me miſeram capti materno nomine private*; that is to ſay, Run away my ſons, ſave your ſelves from theſe harmful and greedy Hunters, leſt if you be taken with me, I be for ever deprived of the name of a mother. The young ones again on the other ſide wandring about their Mother, bleat forth many a mournful ſong, leaping to the Hunters, and looking in their faces, with pitiful aſpects, as if they ſaid unto him; We adjure you (oh Hunters) by the Maker of us all, that you deliver our Mother from your thraldom, and in ſtead of her take us her unhappy children, bend your hard hearts, fear the laws of God which forbiddeth innocents to be puniſhed, and conſider what reverence you owe to the old age of a mother; therefore again (we pray you) let our lives ſatisfie you for our Dams liberty. But poor creatures, when they ſee that nothing can move they unexorable minde of the Hunters, they reſolve to dye with her whom the cannot deliver, and thereupon of their own accord, give themſelves into the hands of the Hunters, and ſo are led away with their mother.

Concerning the *Lybian* Goats before ſpoken of, which live in the tops of Mountains, they are taken by nets, or ſnares, or elſe killed by Darts and Arrows, or ſome other art of hunting. But if at any time they deſcend down into the plain fields, they are no leſs troubled, then if they were in the waves of ſome great water. And therefore any man of a ſlow pace may there take them, without any great difficulty.

The greateſt benefit that ariſeth from them is their skin and their horns; with their skins they are clothed in Winter time againſt Tempeſts, Froſts, and Snow, and it is a common-weed for Shepherds and Carpenters. The horns ſerve them in ſteed of Buckets, to draw water out of the running ſtreams, wherewithall they quench their thirſt, for they may drink out of them, as out of cups; they are ſo great, that no man is able to drink them off at one draught, and when cunning artificers have the handling of them, they make them to receive three times as much more.

The ſelf ſame things are written of the Wilde Goats of *Egypt*, who are ſaid never to be hurt by Scorpions. There is a great City in *Egypt* (called *Coptus*) who were wont to be much addicted to the worſhip of *Iſis*, and in that place there are great abundance of Scorpions, which with their ſtings and poyſon, do oftentimes give mortal and deadly wounds to the people, whileſt they mourn about the Chappel (for they worſhip that Goddeſs) with funeral lamentation: againſt the ſtinging of theſe Scorpions, the *Egyptians* have invented a thouſand deviſes, whereof this was the principal; At the time of their aſſembly, they turn in wilde female Goats naked among the Scorpions lying on the ground, by whoſe preſence they are delivered and eſcape free from the wounds of the Serpents, whereupon the *Coptites* do religiouſly conſecrate theſe female Goats to divinity, thinking that their Idoll *Iſis* did wholly love them, and therefore they ſacrificed the males, but never the females.

It is reported by *Plutarch*, that wilde Goats do above other meat love meal and figs, wherefore in *Armenia* there are certain black fiſhes which are poyſon; with the powder or meal of theſe fiſhes they cover theſe figs, and caſt them abroad where the Goats do haunt, and aſſoon as the Beaſts have taſted them, they preſently dy. Now to the Wilde Goat before pictured, called in *Latine*, *Rupicapra*, and *Capricornus*; and in *Greek*, a *Gargos*, and *Aigaſtros*, and of *Homer Ixalon*; of the *Germans*, *Gemmes*, or *Gemmus*; the *Rhetians* which ſpeak *Italian*, call it *Camuza*; the *Spaniards*, *Capramontes*; the *Polonians*, *Dzykakoza*; the *Bohemians*, *Korytanski Kozlik*; that is to ſay, a *Carinthian* Goat, becauſe that part of the *Alpes* called *Carinthia* is neer bordering upon *Bohemia*.

Albertus. *Bellonius* writeth, that the *French* call him *Chambris*, and in their ancient tongue *Yſard*, this is not very great of body, but hath crooked horns which bend backward to his back, whereupon he ſtayeth himſelf when he falleth from the ſlippery Rocks or Mountains.

Pliny. Theſe horns they are not fit to fight they are ſo ſmall and weak, and therefore nature hath beſtowed them upon them for the cauſe aforeſaid. Of all other Goats this is the leaſt, it hath red eyes, but a quick eye-ſight, his horns are black, being nine or ten fingers long, and compaſſed about with divers circles, but at the top none at all, which is ſharp and crooked like a hook. They ariſe at the root *Parallelwiſe*, that is by equal diſtance one from another, being hollow the breadth of ones thumb, the reſidue ſolid like the Harts.

The Males in this kinde differ not from the Females, neither in horn, colour, or proportion of body: they are in bigneſs like the common Goat, but ſomewhat higher. Their colour is betwixt brown and red. In the Summer time they are red, and in the Winter time they are brown. There hath been ſeen of them which were white and black, in diſtinct colour one from another: and the reaſon hereof is; becauſe they change colour many times in the year. There are ſome of them altogether white, but theſe are ſeldom found; they inhabit for the moſt part the Rocks or Mountains, but not the tops like the Ibecks, neither do they leap ſo far as the foreſaid Goats. They come down ſometime to the roots of the *Alpes*, and there they lick ſand from the Rocks, like as the Village-tame-goats to procure them an appetite.

The *Helvetians* call theſe places in their natural tongue *Fultzen*, that is *Salares*: about theſe places do the Hunters hide themſelves, and ſecretly with guns, bows, or other ſuch inſtruments, they ſuddenly ſhoot and kill them. When they are hunted they ſtep up to the ſteepeſt Rocks, and moſt inacceſſible for Dogs, by that means providing their own ſafety: but if the Hunters preſs after them and climbe upon the Rocks with hands and feet, they leap from thence, from ſtone to ſtone, making their way to the tops of the Mountains, ſo long as they are able to go or climbe, and then they hang by the horns of their head, as if they were ready to fall, which cauſed *Martial* to write thus:

Pendentem ſumma Capream de rupe videbis,
Caſuram ſperes, decipit illa Canes.

Where the Poet attributeth that to the Roe which belongeth to the Wilde Goat, and there they hang many times till they periſh, becauſe they cannot looſe themſelves again, or elſe they are ſhot with Guns, or fall down headlong, or elſe are driven off by the Hunters. From the day of Saint *James* they uſe themſelves to the coldeſt parts of the Mountains, that by degrees they may be accuſtomed to the cold. I have known ſome of theſe made tame, ſo that they have deſcended down to the flocks of tame Goats, whom they do not avoid like the *Ibex.*

From theſe wilde Goats hath that ſame herb (called *Doronicum*) and of the *Græcians*, *Doronicu*, given a name among the *Germans*, *Gemeſſeb Wort*; that is, Wilde-goats-herb, being excellent to cure the Colick, and therefore highly eſteemed among the *Arabians*, *Græcians*, and *Mauritanians*. It is hot and dry in the ſecond degree; and the Countrey people in *Helvetia*, do give it againſt dizineſs in the head, becauſe theſe wilde Goats oftentimes feed upon the ſame, and yet are never troubled with that infirmity, although they run round about the Mountains.

There are Hunters which drink the bloud of this Goat coming hot out of his body, immediately after the wound given, againſt that ſickneſs. The fat and milk of a wilde Goat mingled together, have cured one long ſick of the Ptiſick. The wilde Goats of *Creet*, being wounded with poyſoned darts, run preſently and eat of the herb *Dittani*, by the vertue and juyce whereof, they not only avoid the arrow which ſticketh in their skin, but alſo death, and cure the poyſon.

Of the *KID.*

Of the name.

HAving formerly diſcourſed of ſeveral kindes of Goats, now it followeth that we ſhould alſo intreat of the Kid, which is the iſſue of a Goat; and firſt of the ſeveral names thereof. It is called in *Hebrew*, *Egedi*; which becauſe it ſignifieth alſo a Lamb, they put unto it *Haiſſim*, and the plural Maſculine is *Gedaiim*, and the feminie *Gedioth*, Gen. 35. where the *Chaldean* tranſlation hath *Gadela*; the *Perſian*, *Buskabale*, or elſe *Cabali buſon*; for the *Perſians* render *Cabale* for *Sheter*; in *Hebrew*, *Buſan*, for *Iſſim.* The *Septuagints* render *Erifon*; and vulgarly at this day, the *Græcians* call him *Eriphon*; but the truth is, that *Eriphoi* are Kids of three or four months old, and after that time untill their procreation, they are called *Chimaroi*; the *Latines* call him *Hoedi ab edendo*, from eating (as *Iſidorus* ſaith) for then their fleſh is tender and fat, and the taſt thereof pleaſant. The *Italians* call it *Cauretto*, or *Capretto*, and *Ciaverello*; the *Rhetians* which ſpeak *Italian*, *Vlzol*: the *Spaniards*, *Cabrito*; the *French*, *Chereru*; the *Germans*, *Gitſe*, or *Kiſlein*; the *Polonians*, *Coziel.*

Varinus.

It was a queſtion whether nature would finiſh her parts upon a young one out of the dams belly, wherefore a triall was made upon a Kid which never ſaw his dam, for upon a ſeaſon a diſſection was made upon a Female-goat great with young, and out of her belly was a young one taken alive, ſo as it could never ſee the mother; the ſame Kid was put into a houſe where were many bowls full of Wine, Oyl, Milk, and Hony, and other liquid things: there alſo lay beſide him divers kindes of fruits, both of the Vine, of Corn, and of Plants; at laſt this Kid was ſeen to ariſe and ſtand upon his feet, and as if ſome body had told him that his legs were made to walk upon, he ſhook off all that moiſtneſs which he brought with him out of his mothers belly, afterward he ſcratched his ſide with his foot, and then went and ſmelled at all the former veſſels, and at laſt coming to the milk bowl, he ſupped and licked thereof, which when the beholders ſaw, they all cryed out that *Hippocrates* rule was moſt true, *Animalium naturas eſſe indoctas*, that is to ſay, the natures of creatures are not formed by art, but of their own inclination.

There is nothing more wanton then a Kid, whereupon *Ovid* made this verſe:

Splendidior vitro, teneto laſcivior hædo.

Ælianus.

They often jump and leap among themſelves, and then they promiſe fair weather, but if they keep continually with the flocks, and depart not from their mothers, or continually ſuck or lick up their meat, they fore-ſhew a ſtorm, and therefore they muſt be gathered to their folds, according to the Poets ſaying;

———Si ſine fine modoque
Pabula delibent cum tutas veſper adire
Compellat caulas, monſtrabunt adfore nimbos.

Anatolius, Varro. Palladius.

If Geeſe ſwallow the hairs of Kids or Goats, they dy thereof. Kids are not to be ſeparated from their Dams, or weaned till they be three months old, at which time they may be joyned to the flocks: they are nouriſhed when they are young after the ſame manner as they be at a year old, except that they muſt be more narrowly looked unto, leſt their laſciviouſneſs overthrow their age: and beſides their Milk, you muſt give unto them Three-leaved-graſs, Ivie, and the tops of Lentils, tender leaves, or ſmall twigs of trees: and whereas commonly they are brought forth in twins, it is beſt, to chooſe out the ſtrongeſt headed Kid for the flock, and to ſell the other away to the Butchers. Out of the rennet of the Calves or Kids is the Coagulation.

There was a certain law (as appeareth by *Baifyus*) in the Books of the civill Lawyers, that ſhooes ſhould be made of the skins of Kids, as appeared by ancient Marble monuments at *Rome*, which thing *Martiall* approveth in his verſes to *Phœbus*; ſhewing how time altereth all things; and that the skins of Kids which were wont to cover bald heads, are now put upon bare legs; the verſes are theſe that follow,

Hædina tibi pelle contegenti
Nudæ tempora verticemque calvæ,
Feſtive tibi, Phæbe, dixit ille
Qui dixit caput eſſe calceatum.

Albertus.

Out of the hide of a Kid is made good glew; and in the time of *Cicero* they ſtuffed beds with Kids hair: their fleſh hath been much eſteemed for delicate meat; and for that cauſe dreſſed and trimmed ſundry ways; the beſt Kids for meat have been ſaid to come from *Melos*, or *Umbratia*, or *Viburtinum*, which never taſted graſs, but have more milk in them then bloud, according to the ſaying of *Juvenal.*

De Viburtino veniet pinguiſſimus agro
Hædulus & toto grege mollior, inſcius herbæ,
Nec dum auſus virgas humilis mordere ſalicti.

Arnoldus.

For this cauſe they may ſafely be eaten all the year long while they ſuck, both of men of temperate and hot conſtitution, for they are leſs hurtful then the Rams and do eaſily digeſt, and nouriſh temperately, for they engender thin and moiſt bloud, and alſo help all hot and temperate bodies, and they are at the beſt when as they are neither two old, that is above ſix moneths, nor too young, that is under two moneths.

The red or ſandy coloured are the beſt, yet is their fleſh hurtful to the Colick. *Simeon Sethi* affirmeth, that if a man eat a Kids liver before he drink in the morning, he ſhall not be over drunk that day. *Celtus* alſo preſcribeth it in the ſickneſs of the Holy-fire. They are wholeſome, ſod, roaſted, or baked, but the ribs are beſt ſod. *Platina* teacheth one way whereby it was dreſſed in his time for a delicate diſh; they took ſome field Herbs and fat broth, two whites of an Egge well beaten together, with two heads of Garlick, a little Saffron, and a little Pepper, with the Kids fleſh, put all together into a diſh, roſted before at the fire upon a ſpit (with Parſely, Roſemary, and Lawrel leaves) and ſo ſerv'd out with that ſauce, and ſet on the table: but if they did not eat it before it was cold, it weakened the eye-ſight, and raiſed up venereal luſt.

The bloud alſo of a Kid was made into a bludding, and given to be eaten of them which have the Bloudy-flix. They have alſo deviſed to dreſs a Kid hot, and to fill his belly with Spices and other good things: likewiſe it is ſod in Milk with Lawrel, with divers other faſhions, which every Cook is able to practiſe without the knowledge of learning.

And thus I might conclude the diſcourſe of Kids with a remembrance of their conſtellation in the Waggoner, upon the Bulls horn, which the Poets obſerve for ſignes and tokens fore-ſhewing rain and clowdy weather, according to *Virgils* verſe:

Quantus ab occaſu veniens pluvialibus Hædis.

Theſe Stars riſe in the Evening about the Nones of *October*, and in *December*, they wont to ſacrifice a Kid with Wine to *Faunus*. There is a Bird called *Captilus*, which is a great devourer of Kids and Lambs, and the ſame alſo is hunted by a Dragon, for when ſhe hath filled her ſelf with theſe Beaſts, being wearyed and idle, the Dragon doth eaſily ſet upon her and overtake her. Alſo when they fiſh for the Worm ſeven cubits long in the River *Indus*, they bait their hook with a Lamb or Kid, as is reported by *Ælianus*; and the Ancients were wont by inſpection into the intrails of Kids, to declare or ſearch into things to come, as *Gyraldus* amongſt other their ſuperſtitious vanities rehearſeth.

The manifold medicinal properties of Goats come now in the end of this ſtory to be declared, and firſt of all it is to be noted, that theſe properties are ſeveral, both in the male, female, and Kid; and therefore they are not to be confounded, but as the diligence of learned Authors hath invented, and left them ſeverally recorded, ſo they require at our hands which are the heirs of ſuch beneficial helps, the ſame care and needful curteſie.

Pliny.
The medicines ariſing out of male Goats.

There are ſome which do continually nouriſh Goats in ſtables neer their dwelling houſes, with an opinion that they help to continue them in health, for the Ancients ordained that a man which had been bitten or ſtroke by Serpents, and could not eaſily be cured thereof, ſhould be lodged in a Goats ſtable. The hairs of a Goat-buck burned and perfumed in the preſence, or under a man whoſe genital is decayed, it cureth him.

Sextus.

Pliny.

The powder of a Wine bottle made of a Goats skin with a little Rozen, doth not only ſtanch the bloud of a green wound, but alſo cure the ſame. The powder of the Horn with Nitre and Tamariſk ſeed, Butter, and Oyl, after the head is ſhaven, by anointing it therewith, ſtrengtheneth the hair from falling off, when it groweth again; and cureth the *Alopecia*, and a horn burnt to powder and mingled with meal, cureth the chippings in the head, and the ſcabs: for taking away the ſmell of the arm-pits, they take the horn of an old Goat, and either ſcrape or burn the ſame, then adde they to it a like quaintity of Myrrhe, the Goats gall, and firſt ſcrape or ſhave off the hair, and afterward rub them therewith every day, and they are cured by that perfrication.

Sextus.

Dioſcorides. *Aetius.* *Marcellus.*

The bloud fryed in a pan, and afterwards drunk with Wine, is a preſervative againſt intoxications, and cureth the Bloudy-flix, and the bloud in a Sear-cloth is applyed againſt the Gout, and cleanſeth away all Leproſies, and if the bloud come forth of the noſe without ſtay, then rub the noſe with this bloud of a Goat. It being fitted to meat cureth all the pains of the inward parts: being ſod upon coals ſtayeth the looſeneſs of the belly, and the ſame applyed to the belly mixed with fine flowre, and Rozen, eaſeth the pain in the ſmall guts; the ſame mixed with the marrow of a Goat, which hath been fed with Lentils, cureth the Dropſie; and being drunk alone, breaketh the ſtones in the reins; and with Parſley drunk in Wine, alſo diſſolveth the ſtone in the bladder, and preventeth all ſuch calculating gravel in time to come.

Albertus.

There is a Medicine called by the Apothecaries *Divina manus*, Gods hand, againſt the Stone, and they make it in this manner. When Grapes begin to wax ripe, they take a new earthen pot, and pour into it water, and ſeethe the ſame till all the ſcum or earthy ſubſtance thereof be ejected: and the ſame pot cleanſed, then take out of the flock a Male-goat of four year old, or thereabouts, and receive his bloud as it runneth forth of his ſlaughtered body into that pot, ſo as you let go the firſt and laſt ſtream thereof to the ground, and ſave the reſidue: then let it thicken in the pot, and ſo being therein congealed, break it into many pieces with a reed, and then covering it with ſome linnen cloth, ſet it abroad in the day time where it may gather dew, and then the next day ſet it abroad in the Sun again to exhale the ſame dew, (if in the mean time there fall no rain) then let it dry, and afterward make thereof a powder, and preſerve it in a box, and when the evill pincheth, uſe a ſpoonful of it with Wine of *Creet*: and *Philagrius* commendeth the manifold benefit hereof, for he had often tryed it, and with a medicine made of an *African* Sparrow mixed with this, he procured one to make water, and to void a great ſtone which had not vented his urine in many days, and lived in the mean time in horrible pains; and the ſame vertue is attributed hereunto, if it be anointed neer the bladder; and one be bathed in the warm air, and ſo oftentimes both the Bath and the Oyntment be reiterated. *Marcellus* teacheth how one may make tryal of the vertue of this bloud, for if he take a Male-goat, and put him up cloſe ſeven days, feeding him in the mean time continually with Bays, and afterward cauſe a young Boy to kill him, and receive his bloud in a bladder, and put in the ſaid bladder ſandy ſtones, like unto thoſe that are ingendered in the bladder of a man, within a ſhort time he ſhall ſee thoſe ſtones diſſolved, and ſcarſe to be found in the bladder of bloud, by which he confidently affirmeth, that nothing in the World is of like power to remove the Stone; but withal he willeth ſome ſuperſtitious obſervations, as namely, that he be killed by a chaſte perſon; and on a Thurſday, or Sunday, or ſuch like: but the concluſion is, that the ſaid Bloud muſt be dryed to powder in an Oven, and afterward preſcribeth that three ounces hereof, one ounce of Thyme, one ounce of Pennyroyal, three ounces of burned *Polypus*, one ounce of white Pepper, one ounce of *Apian*, and one ounce of Lovage-ſeed to be given to the party in ſweet Wine faſting, and having no meat in his ſtomach undigeſted, and having digeſted the medicine, he muſt eat preſently.

Pliny.

And therefore if it be true, as all antiquity and experience approveth, that the Goats bloud breaketh and diſſolveth the Adamant ſtone, then much more (ſaith *Jacobus Silvius*) may it work upon the ſtone in a mans bladder. The fleſh of Goats decocted in water, take away all bunches and kernels in the body. The fat of this beaſt is more moiſt then a Females or a Kids, and therefore it is moſt ſtrong in operation, to ſcatter, diſſolve, and reſolve more then a Sheep.

Dioſcorides.

It cureth all Fiſſures in the lips mixed with Gooſe-greaſe, Rozen, Pitch, and the marrow of a Hart. Alſo if one be troubled with ſwellings in his Temples or in his Legs, let him uſe of this ſewet half a pound, and a pound of Capons-greaſe mixed therewith, and ſpreading it upon a cloth like a Sear-cloth, let him apply it to the ſore, and it ſhall help mightily.

Marcellus. *Columella.*

Alſo when the neck of an Ox ſwelleth, it hath been proved for a golden remedy, to take and anoint it with Goats-greaſe, liquid Pitch, the Marrow of a Bugle or Ox, and old Oyl, and may as well be called *Tetrapharmacum*, as that of *Galen* made of Wax, Rozen, Pitch, and Goats-ſewet. Alſo if the bloud be fallen into an Oxens legs, it muſt be let forth, or elſe it will breed the mangy; and therefore firſt of all the place muſt be cut with a knife, and then rubbed with clouts wet in Salt and Oyl, and laſt of all anoynted with old Sewet and Goats-greaſe.

Raſis.

Two ounces of this Goats-greaſe, and a pinte of green Oyl mixed together, and melted in a pot, and infuſed into one that hath the Bloudy-flix, cureth him ſpeedily; when the hot dung or fime of a Goat is mixed with Saffron, and applyed to the gowty members Hydropick, it worketh upon them a ſtrange cure: and ſome adhere unto the ſtalks of Ivy beaten, Muſtard-ſeed, and the flower of a wilde Cucumber.

Galen.

The Liver of this Beaſt laid upon a man that hath been bitten by a mad Dog, cauſeth him never to be afraid of water: the ſame being ſod, yeeldeth a certain liquor, and ſore eyes being anointed with that liquor, within twelve times recover; and drunk in ſharp Wine, and laid to the Navel, ſtayeth the Flux; alſo ſod in Wine, no ſcum or froth being taken off from it, but permitted to joyn with it, helpeth the Bloudy-flix.

Myrepſis.

The entrails of a Goat eaten are profitable againſt the Falling-ſickneſs. The gall killeth the Leproſie, all ſwelling and botches in ſuch bodies, and being mingled with Cheeſe, Quickſilver, and powder of Sponge, and made as thick as Honey, taketh away the ſpots and burls in the face. It alſo rooteth out and conſumeth dead fleſh in a wound, and alſo mingled with Bran and the Urine of a

Bull, cureth the ſcurffe in the head. ***Aetius*** alſo teacheth women how to conceive with childe, if ſhe dip a purple cloth in Goats blood, and apply it to her Navell ſeven dayes, and afterward lie with a man in the prime and encreaſe of the Moon. The Gall of a wilde Goat is commended privately for the help of them that are purblind, and for all whiteneſs and Ulcers in the eyes: and when the hairs which trouble the eyes be pulled up, if the place be anointed with the Gall of Goats, the hair will never grow any more.

Marcellus.

The Milt being ſod, helpeth the Flux, and the Spleen taken out of the beaſts belly, and applyed to the Spleen of a Man, doth within ſhort time eaſe it of all pain, if afterward it be hanged up in any ſume or ſmoak to be dryed. ***Albertus*** and ***Raſis*** ſay, that if a Man eat two Goats ſtones, and preſently lie with his wiſe, ſhe ſhall bring forth a male childe, but if he eat but one, then ſhall the childe have but one ſtone. The fime decocted with Hony, and laid to Ulcers and ſwellings, diſſolveth or draweth them, and mingled with Vinegar, is moſt profitably uſed to take away black ſpots in the face.

Galen.

And if he which is ſick of the falling evill do eat thereof fifteen pils, or little bals, it ſhall procure unto him much eaſe. If it be mingled with Mouſe-dung, toaſted at the fire and ſprinkled with Hony, and ſo anointed upon bald places, where you would have the hair to grow again, and mingled with Vinegar wherein a Sea-onion hath been ſteeped, and bound to the forehead or temples, aſſwageth the pain of the bran-pan.

Herodotus.

The Paſtoral *Carthaginians*, to the intent that the humour flowing out at their Childrens noſes, may never hurt them, burn a vein in the crown of the head with Wool, when they are four year old, and thereby they conceive that they are kept and conſerved in perpetuall good health: and if when they burnt their children, they fell into a Cramp, they eaſed them preſently by caſting upon them the urine of Goats. When a Man is thick of hearing, mingle together the Gall of an Ox, and the Urine of a Goat, and infuſed into the ears, although there be in them a very mattery ſubſtance.

Galen preſcribeth this portion to evacuate that Water which lyeth betwixt the skin by Urine, if one drink Hyſope water and the Urine of a Goat; Likewiſe it helpeth the Dropſie, and the duſt of an Elephants tooth drunk in this Goats Urine, it diſſolveth the ſtone in the reins and bladder, without all fearful peril and danger.

Pliny.
Pliny.
Marcellus.
Pliny.

The medicines ariſing out of the female Goat are theſe, We finde that the female Goat, and the land toad being ſodden together, are cures of ſingular worth for the diſeaſes of all living four-footed beaſts. The (*Magi*, or) wiſemen ſay, that the right eye of a green living Lizard, being taken out, and his head forthwith ſtruck off, and put in a Goats skin is of a great force againſt quartan Agues. The aſhes of a Goats hide beſmeared over with Oil, taketh away the ſpots in the face. The ſame aſhes made of a Goats hide, recovereth the bliſters and gals of the feet. The ſhaving of the Goats skin being rubbed with Pumice ſtone, and mixed with Vinegar, is an excellent approved good remedy for the Smalpox.

Marcellus.
Pliny.
Cœlius.

If a Woman bleed overmuch at the noſe, let her breaſts be bound with a thong made of a Goats skin. The ſame being ſodden with the hair on it, the juyce being ſoked up, ſtayeth the belly. It is not good for thoſe that have the falling ſickneſs to ſleep or lie in a Goats skin, if at any time the paſſion moveth them to it; yet it is hurtful for their head, by reaſon of the rank ſmell, and not for any other particular private cauſe.

Aurelianus.
Æſculapius.
Sextus.
Galen.
Marcellus.

Goats hairs being burnt, do appeaſe all iſſues of bloud, which being mixed with Vinegar they are good to ſtanch the bleeding at noſe, and you may blow in their noſtrils Goats hairs burnt and whole, and alſo Myrrhe mixed with Goats hairs ſo burnt. The ſame alſo burned and mingled with Pitch and Vinegar, helpeth the bleeding at noſe, and being put in the noſe they ſtir up lethargies.

Sextus.
Pliny.
Marcellus.

The ſavour of the Goats horn, or of the hair doth the like, Goats dung in ſweet water, doth expell the ſtone in the body, ſo doth the aſhes of Goats hair in like manner, which being burned and bruiſed, and given in a medicine, they do mightily help and recover the Strangury. It is alſo reported that Goats horn and the hair being burnt, will drive away Serpents: and their aſhes ſoked or anointed, is very good againſt ſtrokes or ſtinging of Serpents.

Pliny.
Hippocrates.

To ſtay the Flux in the belly, take the hairs that grow behind on the Goats ſitting place, and burn them, which being tempered with beaten Barley and Oil, muſt be perfumed under a mans ſeat.

Sextus.
Cœlius.
Marcellus.
Dioſcorides.

Goats fleſh being roſted by the fire where dead men are burnt, is good for thoſe that have the Falling-ſickneſs. The ſame is a good remedy againſt the falling ſickneſs. It is good for ſuch to abſtain from Hogs fleſh, Beef, or Goats fleſh. They that drink Goats bloud, wax pale preſently on it, which is excellent to get out ſpots of any thing: it is alſo good againſt thoſe that are intoxicate with poiſon, and therefore muſt be drunk with wine, and being ſod with marrow, it is good againſt the ſame diſeaſe, ſo is the male Goats bloud. The root of Cinkefoyle drunk in wine, helpeth ill humors Goats bloud alſo, either of the male or female, aſſwageth the inwards and the flowings or laskes of the belly: it is good for thoſe that have the Dropſie, being tempered with Hony, and alſo ſodden with marrow.

Pliny.

Some uſe it againſt the Bloudy flux and pain of the belly, being alſo ſodden with marrow, it is good againſt the ſame diſeaſe. If you mix Goats bloud with Chiſel ſteept in broath, and a little Roſin put into it, whereof make a plaiſter, and lay it to the belly or other parts, and it recovereth any pain thereabouts.

The fat of a male Goat is more faſter, and therefore good for thoſe that have the Bloudy flux The ſubſtance of a Goat is fat, yet is not the fat of a Goat ſo moiſt as a Swines, but for bitings, and thoſe that are grieved in their belly Goats fat is better then Swines, not becauſe it hath more operation in it to expell the grief, but by reaſon it is thick, whereas the Swines greaſe will run about like oil: neither is the fat of Kids ſo warm and dry as female Goats, neither the male Goats ſo fat as the gelded Goats, in *Latin* called *Hircus*; alſo female Goats fat is more binding then the Tallow of Oxen, but the males fat is good againſt Scorpions made in a perfume. It is alſo good for thoſe that are poiſoned with *French* green flies, called *Cantharides*. Being tempered with Wax, it taketh away the ſtinging of Serpents; it helpeth any biting or wound. If a Womans breaſt grieve her after her delivery of childe, let her ſeethe husked Barley and Scallions, and the fat of a male Goat, whereof let her drink a little. Againſt the ache of the eyes, take Goats fat and Sheeps together, with a little warm water.

Marcellinus. *Galen.* *Aetius.* *Pliny.*

Almoſt every grief of the body if it be no wound, will be more eaſily recovered by plaiſters, but if the grief be as it were grounded, (or an old grief) let it be burned, and upon the place ſo ſcorched, put Butter or the fat of a male Goat; it will alſo recover and heal kibes and Chilblanes. It helpeth the Kings evill; ſo doth the fat of the female Goats help the ſame diſeaſe. The males fat mixed with *Arſenicke*, taketh away the roughneſs of the nails: it alſo healeth the nails of the Leproſie without any pain, it expelleth the *Cantharidans* being applyed with the juyce of the Grape that groweth on a wilde Vine. This Goats fat is profitable to help any about the ſtraightneſs of their mouths or lips, being tempered with wax it allayeth Sores and Bliſters, and with Pitch and Brimſtone it healeth them, and being applyed with Hony and the juice of a Brambel, it cureth the ſwellings ariſing in the hands or fingers, eſpecially in curing of Fellons.

Gal n. *Columella.* *Pliny.*

The fat of a Bull well ſalted, or if it be in an ach or grief, dipt in oil without Salt, and ſo after the ſame manner is the male Goats fat uſed, which being tempered with Roſes, taketh away the wheales or bliſters that riſe in the night: being alſo dropped into the ears of one that is deaf, it recovereth him.

It helpeth the Falling ſickneſs, putting thereto as much of the gall of Buls, juſt of the ſame weight, and ſeethe it together, and then lay it in the skin of the gall that it touch not the ground, and drink it out of the water. It is alſo good againſt the ſtinging of Scorpions, being applied with Butter and the meal of *Zea*, warmed and waſhed with red Wine.

Æſculapius.

The broath that is confected of Goats fat ſodden, is excellent for thoſe that are troubled with the Ptiſick, to ſup now and then a few; alſo it helpeth the Cough being tempered with new ſweet wine, that an ounce may be put in a goblet, and ſo mixed with a branch of Rue. It being alſo ſodden with husked Barley, eaſeth thoſe that have fretting in the guts.

Dioſcorides.

The ſame alſo ſodden with Barley flowre and Wine made of Pomgranates and Cheeſe, let it be given to thoſe that are troubled with the Bloudy flux, and let them take it with the juice of husked Barly.

Marcellus.

Raſis alſo ſaith, that the fat of a fierce Lion is of ſuch ſingular account, that if a Glyſter be made of it, with the water of Barly ſod, either with the water of toſted meal, and boyled *Sunach*, and ſo diſſolved with Wax, it is a moſt pretious remedy for the ſwelling of the inwards. But Goats fat doth much help the griefs of the inward parts that nothing cometh forth but cold water. The fat of the Buck Goat many uſe (being ſod with bread and aſhes) againſt the Bloudy flux; and alſo the She Goats fat being taken out of her back alone being a little cold, and then ſupped up: Other allow the fat to be ſodden with Barly flower, Cinnamon, Anniſe, and Vinegar mixed together. The ſame fat taken ſo out of the back mixed with Barly, Bran, and Cinnamon, Anniſe, and Vinegar, of each of them alike, and ſeethe thereof, and being ſtrained give it the patient that is diſeaſed with the Bloudy flux, and it ſhall moſt ſpeedily help him.

Dioſcorides. *Pliny.*

The ſame alſo mixed with Pellitory and Cyprian Wax, may be laid to the Gowt. Alſo ſodden with Goats dung and Saffron, and layed on the Gowt it aſſwageth the grief.

Marcellus.

The marrow of the female Goat, in the fourth place next after the marrow of the Hart, the Calf and the Bull is commended of *Dioſcorides*, but the laſt of all is the Sheeps fat. The Harts is moſt renowned of all, next the Calves, then the Buck Goats, and laſt of all the female Goats. To help the grief of the eye, take the marrow of Goats and anoint your eyes, and it will cure them. Goats bloud ſod with marrow may be taken againſt all toxical poiſon.

Pliny ſaith, that their dung being anointed with Hony, is good for the watering or dropping of the eys, and their marrow againſt aches. The bloud of Goats, their marrow, and their Liver, is very good to eaſe the belly. Goats bloud ſodden with the marrow, helpeth the Bloudy flux, and thoſe that have the Dropſie; and I think that the Bucks is more effectual and of greater operation, ſo it be eaten with Maſtick. Alſo the Goats marrow is good for the eyes of Horſes.

Pliny.

The right horn of a Goat is of ſome held to be of more effect then the other, which I rather hold to be ſuperſtitious; whatſoever other reaſon or ſecret quality the Horn may afford for the bitings of Serpents, take Goats horn and burn the hairs of them, and the aſhes of them ſoked in water, and Goats milk with the horn, and wilde Marjoram, and three cups of Wine put together, and being drunk againſt the ſtinging of an adder expelleth the poiſon.

Pliny.

The aſhes of Goats horn being all anointed with Oil, tempered with Mirtle, ſtayeth the ſweating of the body. Harts horn and Goats being burned, and (if it be requiſite) is good to waſh the teeth

Sextus.

withal

Pliny. withal, and it will make them look white, and the gums ſoft. It is alſo good againſt the Bloudy flux and watering of the eyes in regard they are moſt uſual; yet they neither aſſwage the griefes nor conſume them, which are of a cold and dry nature.

Galen. Harts horn being burnt as alſo a Goats horn, taketh away bitings. Goats dung or the horn being burnt to aſhes, and dipped in Vinegar, ſtoppeth the bloud. The corrupt bloud that cometh out of a Buck Goat, is more effectual and of a better operation; and the aſhes of a Goats horn or dung ſoked in Wine or Vinegar, and anoint the Noſtrils, ſtayeth bleeding at the Noſe.

Pliny. Goats horn being burned at the end, and the pieces or ſcorchings that ariſe thereof, muſt be ſhaken into a new veſſel untill the horn be quite conſumed, then beat and bruiſe them with Vinegar made of Sea-onions, and anoint the evill called Saint Anthonies fire; and it is of a miraculous operation.

Sextus. It will make one ſleep that is troubled with the weakneſs of his head and watching, if it be laid under their pillow. It being mixed with Bran and Oil of Mirtle, it keepeth the hairs faſt that are falling off the head. The ſavour of the horn burned deſcrieth the Falling ſickneſs; ſo doth the ſmell of the intrails of a Goat or the Liver eaten; likewiſe it raiſeth up a Lethargick man. They uſe alſo the horns of Harts and Goats to make white the teeth, and to faſten the gums. The ſame ſhorn or ſhaven into mixt hony, repreſſeth the flux of the belly. In the pain of the belly perfume the ſhavings of the ſame, mingled with Oil and burned Barly; the ſame perfume is good to be laid upon the Ulcers of Horſes.

The hoofs of Goats are preſcribed by ***Palladius*** to be burned for the driving away of Serpents, and the duſt of them put into Vinegar cureth the ***Alopecias***. The duſt of their hoofs is good to rub the teeth withall, alſo to drive away the ſwellings in the diſeaſe called St. Anthonies fire, burn the foot of the Goat with the horn, and reſerve the duſt thereof in a box, and when you will uſe it, wet the place firſt with Wine, and afterwards caſt on the powder.

The juice of a Goats head ſod with hair, is commended for burſtneſs in the belly, and the ancient Magicians gave the brain of the Goats to little infants againſt the Falling ſickneſs, but preſſed through a gold Ring, the ſame cureth Carbunkles in the belly being taken with Hony.

If the body or head be rubbed with that water or meat which falleth out of the mouth of a Goat, mingled with Hony and Salt, they kill all kinde of Lice, and the ſame thing giveth remedy to the pain of the belly, but if it be taken overmuch it purgeth. The broth of the entrails to be gargarized in the mouth, cureth the exulceration of the tongue and arteries.

Galen. *Dioſcorides.* The Liver of the female Goat ſod and eaten, is given againſt the Falling evill, and taketh from them Convulſion, and with the liquor thereof, after it is ſod, it is good to anoint the purblind eyes, alſo it is good to hold the eyes open over it while it ſeetheth, and to receive into them the fume, and the reaſon hereof is, becauſe Goats ſee as perfectly in the night as in the day time, and therefore *Celſus* ſaith, that this medicine is moſt agreeable to them that cannot ſee at all in the night, as it hapneth to Women whoſe monethly courſes are ſtopped, and then it is good for them to anoint their eyes with the bloud of a Goat, and eat the Liver ſod or roſted. The powder of the Liver burnt purged and drunk in Wine cureth the Colick.

Trallianus. *Pliny.* *Marcellus.* If a woman in travel or with childe be ſwollen up, let her take a Goats liver rowled in warm aſhes, and let her eat it in four dayes, and drink old wine thereunto, ſo ſhall ſhe be delivered. The Gall is contrary to all poiſoned Witch-craft made upon the ruſtick Weaſil; and if the Kings evill be daily touched therewith at the beginning, it will keep it from overſpreading, and with beaten Alum it diſperſeth Scabs. The old Magicians were wont to ſay, that when a Man rubbed his eyes when he lay down, and put it underneath his pillow, he ſhould ſleep ſoundly; it driveth away ſcabbes in the head if it be mingled with Fullers chaulke, ſo as the hairs may be dry a little; and the ſame with Hony helpeth the eyes, according to the ſaying of ***Serenus***;

Hyblæi mellis ſucci cum felle caprino
Subveniunt oculis dira caligine preſſis.

Marcellus. The Phyſitians in application hereof to the cure of eyes take many wayes, and mixe it with other drugs, as when they give it againſt whiteneſs in the eyes with Hellebore, againſt wounds and Pin and Webs with Wine; and againſt the broken tunicles with a womans milk, and therefore *Raſis* and ***Albertus*** do juſtly call the Gall of a Goat an Eye-ſalve, and alſo being inſtilled into the ears when they are full of pain, it cureth them, firſt mingling it with a ſcruple of Hony in an earthen ſheard, and ſo infuſing into the ear, and ſhutting it in with a little wool.

Alſo all the pains in the ears are cured by the ſtalkes or juyce of Leeks, Gall of Goats, and ſweet water; and if there be any Rupture in the ear, then uſe therewith a womans milk, or warm Oil of Roſes: likewiſe againſt the Cankers in the gums, and the Squinancy, it is profitable to uſe it with Hony. For all tumors or ſwellings in the neck, take equal quantities of this Gall, of Gooſe-greaſe, and the yolk of an Egge, and theſe being all mingled together, let the offended place be rubbed therewith.

Marcellus. The ſame with the juyce of *Cyclamine* and a little Alum looſeneth the belly, and Wool being well dipped therein and bound to the Navel of the belly, expelleth the Worms, it cureth the faults in the ſeat by anointment; it alſo hath another virtue in it expreſſed by the Poet in this Verſe;

Languidus antiquo purgatur penis Iaccho,
Ac ſuper illinitur fœcundæ felle capellæ.

The melt ſod cureth the Bloudy-flix, and the bladder burnt and given in poſſet-drink is good for them that cannot contain urine in their ſleep,and the ſecunds of a female Goat being drunk in Wine of women after their delivery, ejecteth and caſteth forth their ſeconds alſo. The milk is many ways available, for *Democrates* the Phyſitian, in the recovery of *Conſidia* the daughter of *Servilius*, which had been Conſul, uſed the milk of Goats a long ſeaſon which he fed with Lentils: Sea-crabs mixed with this milk, expelleth poyſon; and the firſt milk of a Goat which is milked from her after the weaning of the Kid, drunk by him that hath a quartane Ague, eaſeth the fits thereof. And ſome of the ancient Phyſitians gave as much dung of Swallows as will ly upon three groats, mixed with this milk againſt a quartane Ague, and when young Lambs were ſick,the ſhepheards cured them by infuſing into their chaps the milk of Goats; the powder of Betony drunk out of Goats milk ſtayeth bleeding.

Sextus.
Pliny.
Columella.
Pliny.

The holy fire is a diſeaſe of Sheep almoſt incurable, becauſe if any remedy do but touch them, they fall mad: but they only in this malady admit for the recreation or remedy Goats milk. The root of the greater Siler decocted in Goats milk, cureth thoſe cold uſtions in the fleſh or belly, when the place looketh black or loſeth ſenſe: and *Aeſculapius* taught his followers and patients to drink it againſt the Itch, or any biting, and if at any time there be any ſtrain in any member of the body, ſo that the Article ſeemeth to decline and loſe his former ſtrength and humor, it is recovered again by binding unto it Lyne-ſeed ſod in Goats milk. *Funerius* adviſeth to waſh the face therewith, that the beauty of it may be more ſplendant. Take ſeven Sea-crabs, and being beaten to powder, mingle them with one pinte of Goats milk, and a cup of Oyl, and ſo ſtrain them diligently, and infuſe them into a Horſes mouth which is ſick of the Head-ach, and it ſhall cure him.

The milk alſo by the counſel of *Philiſtion*, with the juyce of Cabages,Salt,and Hony,is given againſt the ſhortneſs of breath; and if the right eye of a *Chamæleon* be pulled out of her alive, and put into Goats milk, and applyed to the eyes, it cureth the whiteneſs of the eyes.

The fat of a Bull mixed with this milk, and infuſed into the ears, cureth their mattery evils, and cauſeth them to hear more aſſuredly and firmly. The gums of children anointed therewith, cauſeth their teeth to come forth with leſs pain,and faſteneth the looſe teeth by often rubbing: the corners in the throat, and the Arteries are delivered from exulcerations by gargarizing this milk, either warmed at the fire, or elſe as it cometh forth of the udder.

The ſeed of Creſſes decocted in this milk, and drunk, eaſeth the pains in the ſtomach, and alſo purgeth being mixed with Salt and Hony. *Marcellus* preſcribeth this excellent purgation, which ſhall never make the party ſick, that is a pinte of Goats milk, two ounces of ſalt Ammoniack; and one ounce of the beſt *Mecu*, beat them all together, and give them to the patient faſting, and ſo let him walk a good while, till the medicine be wrought in his body; and if a woman be with childe, and oppreſſed with Head-ach, or have an Ague, ſhe may ſafely take this milk ſod with Hony.

Pliny.
Marcellus.
Hippocrates.

The Phyſitians make a ſpecial drink of this milk,which they call *Schiſton*; it is ſod in a new earthen pot, and hath put into it the branches of a fig-tree, and ſo many cups of ſweet water, as there were pintes of milk, and when it boyleth, keep it from ſeething over, by putting into it a ſilver veſſel with cold water,& being taken from the fire,divide it into many veſſels till it be cold,ſo the whay will part from the milk: and ſome take the whay and ſeethe it again till the third part be only left, and afterward ſet it abroad in the Sun to cool, and this may be ſafely drunk five days together (every day a pinte) at five ſeveral times, againſt the Falling evill, Melancholy, Palſies in Leproſies, Gowts or pains in the Articles, and the ſickneſs of the Liver, which is like to a Pleureſie. Or let him drink the Goats milk, the third part thereof mingled with Hony (as *Hippocrates* preſcribeth) or with the ſeed of *Mathrum*, (as *Serenus* counſelleth) in this verſe:

——————*Stomacho medentur*
Semina Mathri facta cum lacte capella.

A draught of Goats milk ſodden with Mallows, and a little Salt put to it, repreſſeth the gripings of the belly,and if you put a little Rennet unto it,it will be more profitable. Goats milk tempered with Rennet, before it be altogether ſtrained, while it is warm, it muſt be given to thoſe that have the Bloudy-flix to drink, and it will help them preſently: put alſo to a good potion of ſweet Wine mingled with Goats milk, and a little Rennet of a Kid (as much as a Nut-kernel is) which being tempered with the hand, let it be given to the patient, labouring with the Bloudy-flix, before it be ſtrained, for the ſpace of three days. Let this drink be given one that is faſting about the time he riſeth, and being boyled, put ſufficient-Barley flowre to it, and being in like manner like pap or pottage, you muſt give it to the patient to drink for the ſame diſeaſe.

Pliny.
Marcellus.
Marcellus.

Goats milk being ſodden half away, may be given to thoſe that have the Bloudy-flix. If they that be troubled with fretting of the guts, and the Flix, are weakened by reaſon of their often going to the ſtool.

Pliny.

The broath of a fat Hen ſod with Butter or Goats milk, or Sheeps, warmed by it ſelf, or elſe ſod with Butter, is very good to be given unto them. Take three ounces of *Amylum*, being a kinde

of

Marcellus. of meat, three moneths old, into as much Goats milk ſod as you ſhall think fit, and ſo give it the patient by ſuppoſitory means for the Bloudy-flix. *Dioſcorides.* Oxen, Sheeps, or Goats milk, ſtayeth the exulcerations and flowings of the belly, ſo it be ſod on the coals, after the uſe of glyſters, if a mans ſecret inwards do abound with filth, but if not, after the foments be laid to the roots and ſtock of the yard, freſh Goats milk muſt be applyed about the meaſure *Hemian*, and no leſs, but it muſt not be done all together, but apart. The next day let the milk ſeethe till the one half be diminiſhed, ſtill taking away that which is uppermoſt (I mean the skin or froth that gathereth in ſetling) and ſo uſe it.

Aetius. For the riſings and flowings of the belly and the Flix, it is very good to get Cows milk or Goats, as is before mentioned of the Cow. Panick being ſod in Goats milk, helpeth the belly, being taken twice a day, and ſo it is good for the fretting of the guts. Old bread tempered with Goats *Pliny.* milk, being given thoſe that have the Flux in their belly twice a day, in manner of ſupping, it is a preſent help.

The juyce of planted peaſe, ſoaked with Goats milk, helpeth the lask of the belly. The milt is good with Goats milk, after one hath faſted two days, let him drink Goats milk, that are fed with Ivy, without any other kinde of meat, for three days together.

They that are troubled with the pain in the milt, the beſt remedy is this: let milch Goats be kept faſting three days, and in the third day let him eat Ivy only, and let them be milked before they *Pliny.* drink; and let the faſting patient grieved about his milt, take three Sextaries warm of that milk, ſo ſoon as ſhe is milked, and ſo let him drink it the ſpace of three days, during which time he ſhall not *Marcellus.* eat nor drink any other meat, and it ſhall help him marvellouſly. He that hath the Conſumption of the Spleen, let him drink the whay of Goats that are fed with Ivy. Goats milk alſo half ſodden, ſo it be of them that feed on Ivy only, it may be given to children that are troubled with *Æſculapius.* the pain in the milt. A drink made of Goats milk and rennet put to it (as Cheeſe is accuſtomed *Sextus.* to be made) and given to thoſe that have the Dropſie, they ſhall be holpen. Alſo Goats milk killeth the Worms.

Thoſe that are troubled with the grief of the reins, let them take three cups of Cretian ſod in Wine, and ſo much of Goats milk, and three and thirty grains of Cowcumber-ſeed, all well bruiſed *Anatolius.* together, which he may drink at one draught. *Anatolius* ſaith, that a porrenger full of Goats milk, with as much *Amylum*, which is as much as three porrengers of Sheeps milk, and three ounces of Oyl, all which well tempered together, muſt be given through a horn to a Horſe that piſſeth bloud, and it will remedy the ſame: and *Polygonius* ſaith, that Goats milk and *Amylum*, with three Egges and the *Pelagonius.* juyce of Pellitory, is good for the ſame diſeaſe in Horſes. The meal of Betony ſoaked out of Goats *Pliny.* milk, ſtayeth the bloud dropping out of the paps. Phyſitians do drink certain medicines made of Goats *Marcellus.* milk that increaſe *Venus*.

The men of *Theſſalia* drink another root of a certain herb (called *Orchin.*) being ſofter and nothing inferior with Goats milk to ſtir up men to carnal copulation, and they drink the harder kinde of root ſo tempered to ſtay it. The root *Ragu ort* (as ſome call it) being given to women with childe, it maketh them that they cannot conceive, being of watery condition: againſt which Goats milk ſoaked with Honey, is an excellent remedy.

Sextus. If the hinder parts that are ſomewhat fleſhy ſtand further out then the reſt, and open, anoint them *Innominatus.* with Goats milk warmed. If any mans Sheep be ſick, let him take Goats milk mingled with Wine, and ſo let him give it them to drink. If Lambs be troubled with Agues or ſickneſs, let Goats milk be given them through a horn.

Columella. Cheeſe made of Goats milk is an excellent help for thoſe that have drunk Miſelden. For other bitings of Beaſts, (beſides that of a mad Dog) Goats Cheeſe well dryed with wilde Marjoram muſt be drunk. The ſame alſo is excellent againſt the ſtinging of Serpents; for all other bitings and ſtingings of leſſer Beaſts, it is alſo a very good remedy. Being dryed out of Vinegar and Honey, taketh away Ulcers and Bliſters.

This ſame Cheeſe when it is new, ſo it be well preſſed, and no whay left in it, and mixed with *Serenus.* Honey, is moſt excellent againſt the quartain Ague. Goats cheeſe alſo repreſſeth all dolors and *Pliny.* punctions; and being ſoft and new, and made with Honey, and covered with a woollen or linnen cloth, taketh away the puffing up of the fleſh. It being dryed with ſcallions, you may anoint Saint *Æſculapius.* *Antonies* fire with it. Being dryed out of Honey and Vinegar, (when men do bath) without Oyl it *Pliny.* may be anointed on black wheals. That which is freſh and well riwated, being laid on the eyes, it quickly aſſwageth the pain. It is alſo exceeding good for the pricking of the eyes, the grief of the head and feet, it is alſo good for the dropping of the eyes, with a little warm water applyed unto it, and if it be a ſwelling of the eyes, then out of Honey, either of which griefs is to be kept warm with whay.

For the grief of a mans Yard, ſeethe the Goats Cheeſe and Honey, of a like quantity in a Poulteſs made in a new earthen pot, and ſo laid thereunto twice a day, but firſt waſh the place with old Wine that is to be cured. It is good for Carbuncles; and if a woman be ſick of her womb, and troubled with *Pliny.* a Fever, let her take half a *Chenix* of Pettiſpurge, and ſo much Nettle-ſeed, and half a *Chenix* of Goats Cheeſe ſcraped, being tempered with old Wine, and afterward being ſodden, let her ſup it up, and if ſhe have the Flix, let her drink the black wilde Grape, and the rinde of a Pomgranate, and a Nut-kernel, and the rennet of a Bull, theſe being waſhed in black Wine, Goats Cheeſe, and Wheat-flower, put them together.

Dioſcorides.

The fime or dung of ſuch Females as live in the Mountains drunk in Wine, cureth the Falling evill; and in *Galens* time they gave the trindles of Goats in Wine againſt the Jaundiſe, and with the fime they anoint them that have the Flux, and made into a Poulteſs, is very helpful againſt the Colick; but *Marcellus* prepareth it on this manner: firſt it muſt be ſteeped in water and ſtrained, with ſixty grains of Pepper, and three porringers of Sweet water, and ſo divide it into three equal potions to be drunk, in three ſeveral days: but the body of the patient muſt be firſt waſhed or anointed with *Acopus*, ſo as all perfrictions by ſweat may be avoided.

Archigenes.

Aetius againſt the hardneſs of the Spleen, preſcribeth a plaiſter made of Goats dung, Barley meal, and the dung alone againſt all tumors or ſwellings of the milt. Againſt water lying betwixt the skin, and the skin and the fleſh this is prepared many ways, and firſt againſt the Dropſie, they ſeethe it the in urine of a Boy which hath taſted of poyſon, or in the Goats urine, till it be as thick that it will ſtick and cleave, and it will purge all by the belly, and alſo the ſhavings of hides which Coriers make, ſod in Vinegar with Goats dung is accounted in ***England*** a ſingular medicine to repreſs all hydropick ſwelling in the legs and belly.

Pliny.

The fime of Female-goats drunk in ſweet water expelleth the Stone out of the Bladder. Againſt the pain in the hips, the ***Arabians*** preſcribe it in this manner, which they call aduſtion (betwixt the thumb and the hand) there is a hollow place wherein they put Wool dipped in Oyl; afterward they ſet on fire little piles of Goats dung in the ſame Wooll, and there let it burn till the fume and vapour thereof be ſenſibly felt in the hip-bone: ſome uſe to apply this to the fat, but in our time it is all out of uſe, and ſeeing yet the pains of the hip do rather fall into the thighs, ſhins and legs, then aſcend up into the Arms and ſhoulders, *Aetius* and *Cornarius* ſay, that this aduſtion for the hips was uſed in the ancient time divers ways, and ſome on this manner, holding the burning dung in a pair of tongs unto the leg of that ſide where the pain lyeth, untill the aduſtion be felt in the hip, and this courſe uſed *Dioſcorides*.

Quintillius uſed another way, which was this: he firſt of all heat the Goats dung, and therewithall burned the ſoft and fleſhy part of the great toe, neer unto the nail, untill it pierced to the ſick place; after ſuch uſtions, they lay beaten leaves of Leeks with Salt to the place, but in the hard bodies of Country men inured to labour, they apply the Dung of Goats with Barley meal and Vinegar.

The ſame with Saffron and Goats ſewet, applyed to the Gowt, healeth it; or elſe Muſtard-ſeed, ſtalks of Ivy, Bettony, or the flower of Wilde-cowcumber, the ſame drunk with Spikenard, or other Spice, ſtirreth up a Womans flowres, and cauſeth eaſie deliverance, but being beaten into Meal and Vinegar, and laid to a Womans belly, with Wooll and Frankincenſe, ſtayeth all Fluxes and Iſſues: alſo little bals of the ſame with hairs, and the fat of a Sea-calf, wrought al together and perfumed under a woman, hath the ſame effect, or elſe the liver of a Sea-calf, and the ſhavings of Cedar-wood.

Vegetius.
Anatolius.

Pliny affirmeth, that the Mid-wives of his time ſtayd the greateſt Flux of the belly by drinking the urine of a Goat, and afterwards anointing it with the dung of a Horſe that hath bruiſed his hoof; Goats bloud with Vinegar cureth the ſame, and if an Aple-tree have worms in it, the dung of a Goat and the urine of a man laid to the root drive them away.

The urine of Goats bloud drunk with Vinegar, reſiſteth the ſtinging of Serpents, and alſo being laid to bunches and ſwellings in the fleſh, in what part ſoever they be, it diſperſeth and expelleth them. Againſt the ſtifneſs of the neck, which they call *Opiſthotonos*, take urine of a Goat, and the heads of Scallions bruiſed to juyce, and infuſe them into the ears; and the ſame mingled with the Oyl of Roſes and a little Nitre, cureth the pain in the ears by infuſion, or by the ſmoke perfumed in a Goats horn twenty days together.

Gallus.

Againſt natural deafneſs take the horn of a Goat newly ſlain, and fill it with urine, and hang it up nine days in the ſmoke, and afterwards uſe it. The urine of a Goat made warm, and inſtilled into the ears, and the fime anointed with fat, is good for the veins of the throat. For the Dropſie drink one ſpoonful mingled with *Carduus*, and warm it at the fire: alſo mingled with Wine or Water, it expelleth the Stone in the Bladder, according to the ſaying of *Serenus*:

Nec non obſcœnus capræ potabitur humor,
Obruit hic morbum tabefactaque ſaxa remittit.

The ſame Phyſitian preſcribeth Goats trindles to be drunk in Wine againſt the Jaundiſe, and to ſtay the fluxes of women, the ſame dung tyed in a cloth about unquiet children, eſpecially womenkinde, maketh them more ſtill; being mingled with Wine, cureth the bitings of Vipers, and the dung taken out of the Goats belly and anointed upon the ſore, cureth it with all ſpeed: the ſame vertue it hath to heal men wounded by Scorpions, being decocted in Vinegar, it cureth alſo the biting of a mad Dog, mixed with Honey and Wine.

Being laid upon a Wound it keepeth it from ſwelling, it hath the ſame vertue mingled with Barley-meal, but healeth the Kings evill. It is uſed alſo to ripen ſores and ruptures, being applyed to the ſuppurations, it keepeth down the ſwellings of womens breſts, being firſt dryed, and then ſteeped in new Wine, and ſo laid to the ſore, for it digeſteth inflamation.

When the eye-lids be thick, hard, red and bald, take Goats dung and Mouſe dung, of either a like quantity burned, and twice ſo much of the powder of the *Grecian* canes, with Honey Attick; and anoint them therewith; being heat with Vinegar, and put upon the ſore, it cureth Tetters and Ring-worms, and diſperſeth Carbuncles in the belly: alſo being heated in Vinegar with Cow milk, Oyl of Cipreſs and Laurel, it purgeth and cureth all wounds of the legs and ſhins, it pulleth out thorns or ſharp pricks out of the body, as that learned Phyſitian *Mytiæ* hath proved, as Sheeps dung alſo doth: laying it round about the wound, it cureth burnings and draweth out heat, with Oyl of Roſes and Vinegar (as *Galen* writeth.)

It is alſo commended for broken joynts, becauſe it ſuffereth them not to ſwell or ſtart out, being once ſet, therefore it muſt be uſed with Honey and Wine, and it hath the ſame operation for broken ribs, for it openeth, draweth and healeth: alſo it being decocted with Vinegar, it healeth the pains in the nerves, although they be ready to rot, and eaſeth the pain in the joynts: the fime of a fat Goat cureth the Gout, and the contraction or ſhrinking of the nerves, being dreſſed with Vinegar, and made as thick as Honey, it helpeth the trembling members. It is very dry, and therefore (*Arnoldus* ſaith) it cureth the Fiſtula, making a plaiſter thereof with the meal of Beans, Wine and Leigh, which hath been ſeen wonderfully to dry up the Fiſtula. With Oxymel and Vinegar it cureth the *Aleptius*, but it muſt be burned.

Take ſeaven bals of Goats dung, work them in Vinegar, then anoint your fore-head therewith, and it eaſeth the pain in the head, or elſe mingle it with Oyl of Roſes, and ſpread it upon a cloth laying it to your temples, change it morning and evening, and you ſhall finde great eaſe thereby.

If the eyes be ſwoln at any time, binde this dung unto them: being mingled with liquid pitch and Honey, healeth them which are ſick of the Quinſie; being gargarized in the mouth, he which is ſick of an old Cough, let him take the dryed trindles and put them into the beſt Wine, and drink it off, ſo ſhall he preſently avoid his fleam and filthy humor, and be healed.

The Remedies out of a Wilde Goat.

The ſame vertue which are in the Goats before ſpoken of, do alſo belong to the wilde Goats, the bloud taketh away bunches in the fleſh; and being mingled with Sea-palm, cauſeth the hair to fall off. An Ointment made of the fat of Goats, is profitable to them which have webs in their eyes; and the fat of Mountain Goats, helpeth infected Lights: His liver broiled upon coals and taken alone, helpeth the Flix, but moſt certainly when it is dryed and drunk in Wine: the gawl is good for many things; eſpecially it is a Treacle againſt poyſon, ſuffuſions, whiteneſs and blindneſs of the eyes, by anointing, it cureth the purblinde and the webs in the eye; and generally it hath the ſame properties in every part as the tame Goats before ſpoken of.

The like may be ſaid of the Kids or young Goats, and firſt of all a Kid being ſlit aſunder alive, and his warm fleſh laid to a poyſoned wound, doth moſt aſſuredly heal the ſame. Others take the warm fleſh of Kids and perfume them with hair, by the ſavour whereof they drive away Serpents: the skin newly pulled off, and put upon the body beaten with ſtripes, taketh away their pain: others again uſe it againſt the Cramp; and not without reaſon, for the tender skins of Lambs & Goats, being ſprinkled or dipped in warm Oyl, giveth very much ſtrength and paience to endure the Convulſion.

Praxagoras preſcribeth the fleſh againſt the Falling evill; and by gargarizing the broath when it was ſod, cureth the Quinſie and ſoreneſs of the throat. *Demetrius* ſaith, that the brain being drawn through a gold ring, and given to a Hawk which hath the Falling ſickneſs, it will work admirably upon her. The bloud being dryed and decocted with marrow, is good againſt all intoxicate paſſions, and being mingled with ſharp Vinegar before it be congealed, it helpeth the ſpitting of bloud: the ſame being eaten, cureth all kinde of Flixes, being taken three days together. *Galen* rehearſeth in the Antidote of Urbane, among other things, the bloud of Kids to draw the dead young ones out of the Dams belly.

With the fat there is an Ointment made with Roſe water, to heal the fiſſures of the lips and noſe, which is much deſired of Women, not only for the before rehearſed vertue, but alſo becauſe by anointing they keep by it their face from Sun-burning. The *French* and *Italians* call it (*Pomato*) becauſe it ſmelleth like Apples, they put alſo into it Musk and Roſe water, a pound of Kids ſewet, and warm it in a Bath untill all be white, and ſo waſh it with the ſaid Roſe water, and afterward repoſe it in a glaſs: The Ointment which is called (*Unguentum album*) is like unto it: the aſhes of the thighs of a Kid, healeth burſtneſs, and ſtancheth bloud: the rennet is alſo commendable againſt Hemlock, or Toad-ſtool, and againſt all the poyſonful ſtrokes of Sea-beaſts; being drunk in Wine, it ſtayeth bleeding, and refreſheth excreations of bloud; being taken with Vinegar it helpeth alſo the flix; being drunk faſting, it hath ſome operation to ſtay womens flowers. The lights of a Kid ſod and eaten faſting, preſerveth from drunkenneſs that day; and the powder of it burned, eaſeth the itching of the eyes; and peel'd eye-lids, if it be applyed like *Stibium*: likewiſe the bladder of a female Kid drunk in powder, helpeth the inconſtancy of urine: the milt laid upon the ſpleen of an infant, aſſwageth the pain and tumors thereof; the liver is not fit for temperate men, but for weak cholerick men.

The Inhabitanes of the Mount *Atlas* do gather *Euforbium*, and corrupt it with Kids milk, but it is diſcerned by fire; for the good *Euforbium* being burned, yeeldeth an unacceptable ſavour, and ſo we conclude this ſtory, with the two Emblems of *Alciatus* One againſt them that take much pain, and make good beginnings, but evill ends, like a Goat which giveth a good meſs of milk, and over-turneth it with her foot:

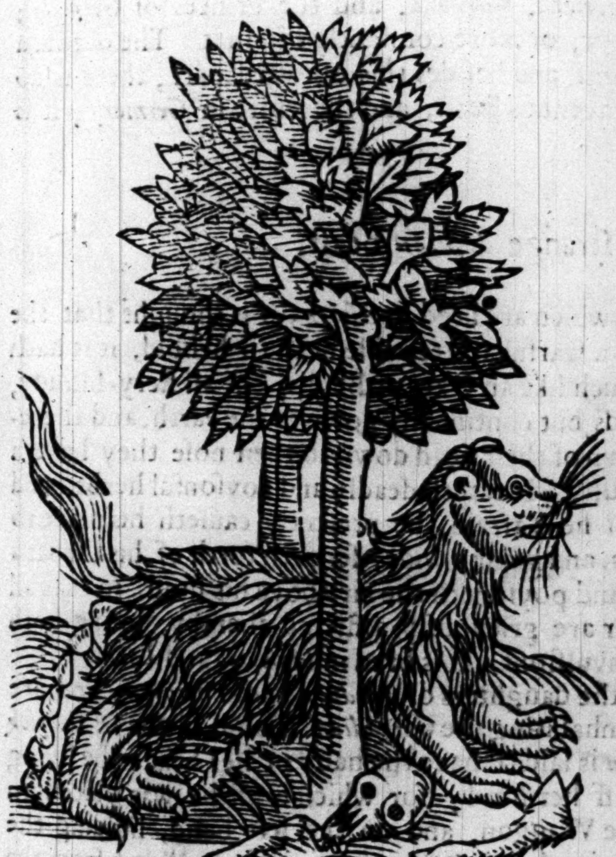
Quod ſine egregios turpi maculaveris orſus
Innoxamque tuum verteris officium,
Feciſti quod Capra ſui mulctraria lactis
Cum ferit, & proprias calce profundit opes.

The other Emblem is upon a Goat, the which by her Keeper was conſtrained to give a young Wolf ſuck, who afterward notwithſtanding that good turn, devoureth his Nurſe: and it may be applyed unto them which nouriſh their own harms, and ſave a theef from the gallows.

Capra lupum nen ſponte mep nunc ubere lacto,
Quod male paſtoris provida cura jubet:
Creverit ille ſimul, mea me poſt ubere paſcit:
Improbitas nullo flectitur obſequio.

There is a pretty compariſon of a Harlots love to a fiſherman, which putteth upon him a Goats skin with the horns, to deceive the *Sargus*-fiſh, for that fiſh loveth a Goat above all other creatures, and therefore the fiſher-man beguileth her with a falſe appearance, as the flattering love of Harlots doe ſimple mindes by fained proteſtations.

Of the *GVLON*.



THis Beaſt was not known by the Ancients, but hath been ſince diſcovered in the Northern parts of the World, and becauſe of the great voracity thereof, it is called (*Gulo*) that is, a devourer in imitation of the *Germans*, who call ſuch devouring creatures *Vilſiuſs*, and the *Swedians*, *Gerff*; in *Lituania* and *Muſcovia*, it is called *Roſſomokal*. It is thought to be engendered by a *Hyæna* and a *Lioneſs*, for in quality it reſembleth a *Hiæna*, and it is the ſame which is called (*Crocuta*:) it is a devouring and an unprofitable creature, having ſharper teeth then other creatures. Some think it is derived of a Wolf and a Dog, for it is about the bigneſs of a Dog: it hath the face of a Cat, the body and tail of a Fox; being black of colour: his feet and nails be moſt ſharp, his skin ruſty, the hair very ſharp, and it feedeth upon dead carkaſes.

Matthias.

When it hath found a dead carkaſs he eateth thereof ſo violently, that his belly ſtandeth out like a bell; then he ſeeketh for ſome narrow paſſage betwixt two trees, and there draweth through his body, by preſſing whereof, he driveth out the meat which he had eaten: and being ſo emptied returneth and devoureth as much as he did before, and goeth again and emptieth himſelf as in former manner, and ſo continueth eating and emptying till all be eaten. It may be that God hath ordained ſuch a creature in thoſe Countries, to expreſs the abominable gluttony of the men of that Countrey, that they may know their true deformed nature, and lively ugly figure, repreſented in this Monſter-eating-beaſt: for it is the faſhion of the Noble men in thoſe parts, to ſit from noon till midnight, eating and drinking, and never riſe from the table, but to diſgorge their ſtomachs, or eaſe their bellies: and then return with refreſhed appetites to ingurgitate and conſume more of Gods creatures: wherein they grow to ſuch a heighth of beaſtlineſs, that they loſe both ſenſe and reaſon, and know no difference between head and tail. Such they are in *Muſcovia*, in *Lituania*, and moſt ſhameful of all in *Tartaria*.

These things are reported by *Olaus Magnus*, and *Mathias Michou*; But I would to God that this ſame (more then beaſtly intemperate gluttony) had been circumſcribed and confined within the limits of thoſe unchriſtian or heretical-apoſtatical-countries, and had not ſpread it ſelf and infected our more civil and Chriſtian parts of the World; ſo ſhould not Nobility, Society, Amity, good fellowſhip, neighbourhood, and honeſty, be ever placed upon drunken or gluttonous companions: or any man be commended for bibbing and ſucking in Wine and Beer like a Swine: When in the mean ſeaſon no ſpark of grace, or Chriſtianity, appeareth in them: which notwithſtanding they take upon them, being herein worſe then Beaſts, who ſtill reſerve the notes of their nature, and preſerve their lives; but theſe loſe the markes of humanity, reaſon, memory and ſenſe, with the conditions of their families, applying themſelves to conſume both patrimony and pence in this voracity, and forget the Badges of Chriſtians, offering ſacrifice to nothing but their bellies. The Church forſaketh them, the ſpirit accurſeth them, the civil world abhorreth them, the Lord condemneth them, the Devil expecteth them, and the fire of Hell it ſelf is prepared for them; and all ſuch devourers of Gods good creature.

The kindes of Gulons.

To help their digeſtion, for although the *Hiena* and *Gulon*, and ſome other monſters are ſubject to this gluttony, yet are there many creatures more in the world, who although they be Beaſts and lack reaſon, yet can they not by any famine, ſtripes, or provocations be drawn to exceed their natural appetites, or meaſure in eating or drinking. There are of theſe Beaſts two kindes, diſtinguiſhed by colour, one black, and the other like a Wolf, they ſeldom kill a Man, or any live Beaſts, but feed upon carrion and dead carkaſſes, as is before ſaid; yet ſometimes when they are hungry, they prey upon Beaſts, as Horſes, and ſuch like, and then they ſubtilly aſcend up into a tree, and when they ſee a Beaſt under the ſame, they leap down upon him and deſtroy him. A Bear is afraid to meet them, and unable to match them by reaſon of their ſharp teeth.

The skins of Gulons.

This Beaſt is tamed, and nouriſhed in the Courts of Princes, for no other cauſe then for an example of incredible voracity. When he hath filled his belly, if he can finde no trees growing ſo near together, as by ſliding betwixt them, he may expel his excrements; then taketh he an Alder-tree, and with his fore-feet rendeth the ſame aſunder, and paſſeth through the midſt of it, for the cauſe aforeſaid. When they are wilde, men kill them with bows and gins, for no other cauſe than for their skins which are precious and profitable; for they are white ſpotted, changeably interlined like divers flowers; for which cauſe the greateſt Princes, and richeſt Nobles uſe them in garments in the Winter time, ſuch are the Kings of *Polonia*, *Sweveland*, *Goatland*, and the Princes of *Germany*; neither is their any skin which will ſooner take a colour, or more conſtantly retain it. The outward appearance of the ſaid skin is like to a damaskt garment, and beſides this outward part, there is no other memorable thing worthy obſervation in this ravenous Beaſt, and therefore in *Germany*, it is called a four-footed Vulture.

Of the *GORGON* or ſtrange *Lybian* Beaſt.

The countrey and deſcription.

AMong the manifold and divers ſorts of Beaſts which are bred in *Africk*, it is thought that the *Gorgon* is brought forth in that Countrey. It is a fearful and terrible beaſt to behold, it it hath high and thick eye-lids, eyes not very great, but much like an Oxes or Bugils, but all fiery-bloudy, which neither look directly forward, nor yet upwards, but continually down to the earth, and therefore are called in *Greek*, *Catobleponta*. From the crown of their head down to their noſe they have a long hanging mane, which make them to look fearfully. It eateth deadly and poyſonful herbs, and if at any time he ſee a Bull or other creature whereof he is afraid, he preſently cauſeth his mane to ſtand upright, and being ſo lifted up, opening his lips, and gaping wide, ſendeth forth of his throat a certain ſharp and horrible breath, which infecteth and poyſoneth the air above his head, ſo that all living creatures which draw in the breath of that air are grievouſly afflicted thereby, loſing both voyce and ſight, they fall into lethal and deadly Convulſions. It is bred in *Heſperia* and *Lybia*.

Ælianus.

The Poets have a fiction, that the *Gorgones* were the daughters of *Meduſa* and *Phoroynis*, and are called *Steingo*, and by *Heſiodus Stheno*, and *Euryale*, inhabiting the *Gorgadian* Iſlands in the *Æthiopick* Ocean, over againſt the gardens of *Heſperia*. *Meduſa* is ſaid to have the hairs of her head to be living Serpents, againſt whom *Perſeus* fought, and cut off her head; for which cauſe he was placed in Heaven, on the North ſide of the Zodiack above the Waggon, and on the left hand, holding the *Gorgons* head. The truth is, that that there were certain *Amazonian* women in *Africk*, divers from the *Scythians*, againſt whom *Perſeus* made war; and the Captain of thoſe Women was call *Meduſa*, whom *Perſeus* overthrew, and cut off her head, and from thence came the Poets fiction, deſcribing it with Snakes growing out of it as is aforeſaid. Theſe *Gorgons* are bred in that Countrey, and have ſuch hair about their heads, as not only exceedeth all other Beaſts, but alſo poyſoneth when ſhe ſtandeth upright. *Pliny* called this *Catablepon*, becauſe it continually looketh downward, and ſaith that all the parts of it are but ſmall, excepting the head, which is very heavy, and exceedeth the proportion of his body, which is never lifted up, but all living creatures dy that ſee his eyes.

By which there ariſeth a queſtion, whether the poyſon which he ſendeth forth, proceed from his breath, or from his eyes. Whereupon it is more probable, that like the Cockatrice he killeth by ſeeing, then by the breath of his mouth, which is not competible to any other Beaſts in the world. Beſides when the Souldiers of *Marius* followed *Jugurtha*, they ſaw one of theſe Gorgons, and ſuppoſing it was ſome Sheep, bending the head continually to the earth, and moving ſlowly, they ſet upon him with their ſwords, whereat the Beaſt diſdaining, ſuddenly diſcovered his eyes, ſetting his hair upright, at the ſight whereof the Souldiers fell down dead.

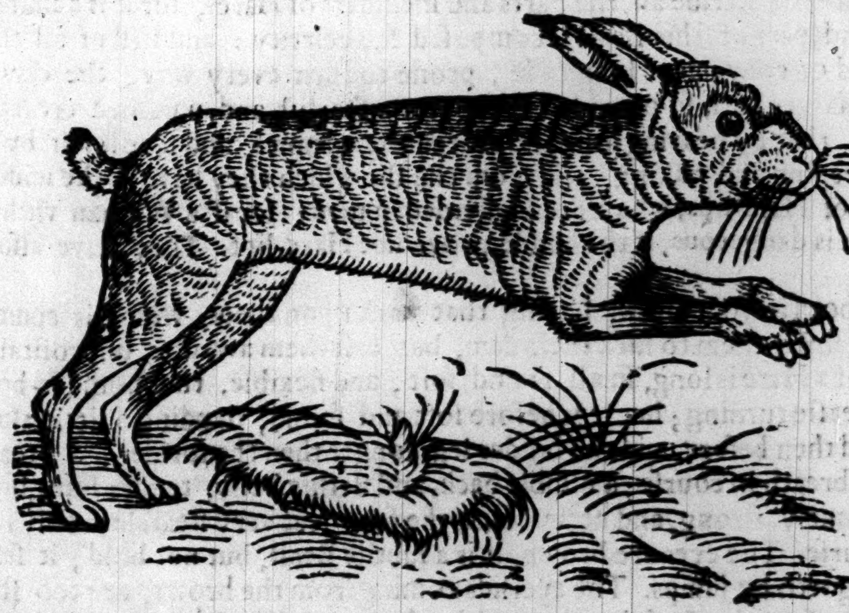
Marius hearing thereof ſent other Souldiers to kill the Beaſt, but they likewiſe dyed as the former. At laſt the Inhabitants of the Countrey, told the Captain the poyſon of this Beaſts nature, and that if he were not killed upon a ſudden, with the only ſight of his eyes, he ſent death into his hunters: then did the Captain lay an ambuſh of Soldiers for him, who ſlew him ſuddenly with their ſpears, and brought him to the Emperour; whereupon *Marius* ſent his skin to *Rome*, which was hung up in the Temple of *Hercules*, wherein the people were feaſted after the triumphs; by which it is apparent that they kill with their eyes, and not with their breath.

So that the fable of *Servius*, which reporteth that in the furtheſt place of *Atlas*, theſe *Gorgons* are bred, and that they have but one eye a piece, is not to be believed, except he mean, as elſewhere he confeſſeth, that there were certain maids which were ſiſters, call *Gorgons*; and were ſo beautiful, that all young men were amazed to behold them. Whereupon it was ſaid, that they were turned into ſtones: meaning that their love bereft them of their wit and ſenſe. They were called the daughters of *Cetus*, and three of them were made Nymphs, which were called *Pephredo*, *Enyo*, and the third *Dinon*: ſo called as *Geraldus* ſaith, becauſe they were old women ſo ſoon as they were born, whereunto was aſſigned one eye and one tooth. But to omit theſe fables, it is certain that ſharp poyſoned ſights are called *Gorgon-Blepen*, and therefore we will follow the authority of *Pliny* and *Atheneus*. It is a Beaſt all ſet over with ſcales like a Dragon, having no hair except on his head, great teeth like Swine, having wings to fly, and hands to handle, in ſtature betwixt a Bull and a Calf.

Hyginus.

There be Iſlands called *Gorgonies*, wherein theſe Monſter-*Gorgons* were bred, and unto the days of *Pliny*, the people of that Countrey retained ſome part of their prodigious nature. It is reported by *Xenophon*, that *Hanno* King of *Carthage* ranged with his Army in that Region, and found there certain women of incredible ſwiftneſs and pernicity of foot. Whereof he took two only of all that appeared in ſight, which had ſuch rough and ſharp bodies, as never before were ſeen. Wherefore when they were dead, he hung up their skins in the Temple of *Juno*, for a monument of their ſtrange natures, which remained there untill the deſtruction of *Carthage*. By the conſideration of this Beaſt there appeareth one manifeſt argument of the Creators divine wiſdom and Providence, who hath turned the eyes of this Beaſt downward to the earth, as it were thereby burying his poyſon from the hurt of man: and ſhadowing them with rough, long, and ſtrong hair, that their poyſoned beams ſhould not reflect upwards, untill the Beaſt were provoked by fear or danger, the heavineſs of his head being like a clog to reſtrain the liberty of his poyſonful nature; but what other parts, vertues, or vices are contained in the compaſs of this Monſter, God only knoweth, who peradventure hath permitted it to live upon the face of the earth, for no other cauſe but to be a puniſhment and ſcourge unto mankinde; and an evident example of his own wrathful power to everlaſting deſtruction. And thus much may ſerve for a deſcription of this Beaſt, untill by Gods Providence, more can be known thereof.

Of the *HARE*.



A Hare is a four-footed Beaſt of the earth, which the *Hebrews* call *Arnebet*, in the feminine gender, which word gave an occaſion to an opinion that all Hares were females, or at the leaſt that the males bring forth young as well as females: whereof we ſhall ſee more in the ſequell of this ſtory. And the *Jews* ſay, that it ſignifieth nothing elſe in *Hebrew* but a Hare, for which word Deut. 14. the *Chaldee* tranſlateth *Arneba*; the *Arabians*, *Ernab*; the *Perſians*, *Kargos*. *Avicenna* calleth it *Arneberri*; *Silvaticus*, *Arnaberri*, *Arnebus*, and *Arnaben*; the *Saracens*, *Arneph*; the *Græcians*, *Lagoos*, *Lagos*, *Lagooos*, becauſe of his immoderate luſt. It is called *Ptoox* for his fear, and in *Latine*, *Lepus*, of *Levipes*, ſignifying ſwiftneſs of feet, and that it is not heard when it goeth; howſoever ſome men derive it from *Leporis* the *Greek* word, others derive *Lagos* from *La*, betokening elevation, and *Oos*, ſignifying an ear, becauſe ſhe pricketh up one of her ears when ſhe runneth. The *Italians* call it *Livora*; the *French*, *Lieure*, and *Leurault*, *Leureteau*; the *Spaniards*, *Liebre*; the *Germans*, *Haſs*, or *Haas*; the *Ilyrians*, *Zagicz*.

Of the ſeveral names.

O the ſeveral kindes.

There be four ſorts of Hares, ſome live in the Mountains, ſome in the Fields, ſome in the Mariſhes, and ſome every where without any certain place of abode. They of the Mountains are moſt ſwift, they of the fields leſs nimble, they of the marſhes moſt ſlow, and the wandring Hares are moſt dangerous to follow: for they are ſo cunning in the ways, and muſes of the field, running up the hils and rocks, becauſe by cuſtom they know the neareſt way, and forbearing down hils, ſometime making heads upon the plain ground, to the confuſion of the Dogs, and the diſmaying of the Hunter.

Of the *Elyan* Hares.

Pollux ſaith, that there be certain Hares called *Elymei* (almoſt as big as Foxes) being blackiſh, of long bodies, and large white ſpots upon the top of their tails; theſe are ſo called of their countrey (like the *Elymaan* Dogs,) There be alſo Hares called *Moſchia*, ſo called becauſe of their ſweet ſmell, or elſe that they leave in their foot-ſteps ſuch a ſtrong ſavour, whereunto when the Dogs ſmell, they are ſaid to be almoſt mad. At *Piſa* the Hares be very great, becauſe there they have more gratefull meat then in other places.

Hermolaus.

A ſecret in the *Muſchian* Hares.

Niphus.

Of the Country Hares, and their ſeveral parts.

Bonarus.

In the neither *Pannonia* they are much fatter and better taſted than they be in *Italy*, the *Italian* Hare hath its fore-legs low, a part of his back-pale or yellowiſh, the belly white, the ears long: In *Gallia* beyond the *Alpes*; they are alſo white, and therefore ſome have thought that in the Winter time they eat ſnow: and this is certain, that when the ſnow melteth, their colour is much altered. There hath been white haired Conies, whoſe skin was black, and hair of their ears black. They are bred in *Lybia*, in *Scythia*, and in *Italy*, in the top of the Mountains, and ſo brought into other Countries. Some again have been white in the Winter, and return to their former colour in Summer. There are great ſtore of white Conies in *Vilna*, and *Lethuania*, but they are leſſer eſteemed and ſold cheaper. (*Schonebergerus* ſaith) the back of a Hare is commonly ruſſet, or like Olive colour interlined with ſome black ſpots: the common Hare of the *Alpes* never changeth colour, and it is greater than the ordinary Hare. There are white Hares alſo in *England*, and in *Muſcovia*, there are a multitude of Hares of all colours, but no where ſo many as in the Deſert Iſlands, becauſe there are no Foxes there to kill the young ones, or Eagles, which frequent the higheſt Mountains in the Continent, and the people that inhabit there regard not hunting.

The Hares of *Ithaca.*

In *Athens* (*Maucrates* ſaith) there were no Hares, but *Alceus* affirmeth the contrary. Hares brought into *Ithaca*, dy preſently, and if they range a little about the Countrey, yet return they back to the haven where they came to land, and depart not from the ſhore till they be dead. *Hegeſander Delphus* writeth, that in the reign of *Antigonus*, there was ſuch a number of Hares in *Aſtipalea*, (and afterward in *Leros*) that the Inhabitants were conſtrained to go to the Oracle, and demand counſel how to reſiſt the Hares, from whom they received anſwer, that they muſt nouriſh Dogs and kill them; and whereas they ſo abounded in *Leros*, which at the peoples own requeſt and care, multiplyed to their great harm; afterward a ſign of the Hare was placed in Heaven, to remember them, that nothing ſo much hurteth man-kinde, as their own deſires: yet in ancient time there was not a Hare in thoſe Countries.

Their ſeveral parts.

In the next place we are to deſcribe all the parts and members of Hares, for it is admirable to behold how every limb and part of this Beaſt is compoſed for celerity: and firſt of all the head is round, nimble, ſhort, and of convenient longitude, prone to turn every way; the ears long and lofty like an Aſſes, for Nature hath ſo provided, that every fearful and unarmed creature ſhould have long and large ears, that by hearing it might prevent its enemies, and ſave it ſelf by flight. The lips continually move ſleeping and waking, and from the ſlit which they have in the middle of their noſe, cometh the term of Hare-lips, which are ſo divided in men; for if a Woman with childe ſee one of them ſuddenly, it is dangerous, if the childe prove not Hare-lipt. They have alſo teeth on both ſides.

Of their ſeveral ſenſes.

A ſecret.

Whatſoever Beaſt be born in your flock, having that mark upon them, which is commonly called Hares-tooth, never ſuffer them to ſuck their dam, but caſt them away as unprofitable and baſtard cattel; the neck of a Hare is long, ſmall, round, ſoft, and flexible, the ſhoulder-bone ſtraight and broad, for her more eaſie turning; her legs before ſoft and ſound, ſtanding a little aſunder, very flexible, broader behind then before, and the hinder legs longer then the former; a breaſt not narrow, but fitted to take breath in courſe; a nimble back, and fleſhie belly, tender loins, hollow ſides, fat buttocks filled up, comely, ſtrong, and nervy loins, the fore-feet very flexible; only it wanteth a commodious tail for courſe. The eyes are brown, it is a ſubtile Beaſt, but not bold; it ſeldom looketh forward, becauſe it goeth by jumps. The eye-lids coming from the brows, are too ſhort to cover their eyes, and therefore this ſenſe is very weak in them; and beſides their over-much ſleep, their fear of Dogs and ſwiftneſs, cauſeth them to ſee the leſs; when they watch, they ſhut their eyes; and when they ſleep they open them.

Orus.

Wherefore the *Egyptians* when they will ſignifie and open a manifeſt matter, they picture a Hare ſleeping. They watch for the moſt part all the night: when the eye-lid of a man is pulled back, ſo as it will not cover the ball of the eye; the *Grecians* call it *Lagophthalmous*, that is, Hares-eyes, for ſo doth *Cœlius* define it, it cometh ſometimes, when in the cure it is cut away too much, or elſe when the hinder lid falleth down, and ſtandeth not up to meet the other, but concerning the colour of their eyes, it is not very poſſible to diſcover it, as well for the cauſes aforeſaid, as alſo becauſe it is ſeldom taken but dead; yet this is certain, that with what colour it beginneth, in that it continueth to the laſt, according to *Virgils* verſes:

Quem fuga non rapit ore Canum, non occulit umbra,
Concolor immotum ſub Jove terra tegit.

The liver is ſo parted aſunder, that a man would think there were two livers in one body, and *Pliny* is bold to affirm, that in *Briletum*, *Thirne*, *Propontis*, *Sycynum*, *Bolba*, and other places they are all ſuch. *Archelaus* upon this occaſion affirmeth, that a Hare beareth young both male and female, ſo that the *Grammarians* know not of what ſex to make it. *Albertus* and *Democritus* are abſolute in this point.

Whether male bear young like females.

Blondus confeſſeth he cannot tell; the common ſort of people ſuppoſe, they are one year male, and another female. *Ælianus* alſo affirmeth ſo much, and by relation of his friend, he ventureth the matter, and ſaith moreover, that a male Hare was once found almoſt dead, whoſe belly being opened, there were three young ones alive taken out of her belly, and that one of them looked up alive, after it had lien a while in the Sun, and it put out the tongue as though it deſired meat, whereupon milk was brought to it, and ſo it was nouriſhed.

But all this is eaſily anſwered, if a man follow the counſel of *Archodius*, and look upon the ſecrets of nature, he ſhall finde a moſt plain diſtinction: but the Hunters object that there be ſome which are only females, and no more: but no male that is not alſo a female, and ſo they make him an *Hermaphrodite*. *Niphus* alſo affirmeth ſo much, for he ſaw a Hare which had ſtones and a yard, and yet was great with young, and alſo another which wanted ſtones, and the males genital, and alſo had young in her belly. *Rondelius* ſaith, that they are not ſtones, but certain little bladders filled with matter, which men finde in female Hares with young, ſuch as are upon the belly of a Beaver, wherein alſo the vulgar ſort are deceived, taking thoſe bunches for ſtones, as they do theſe bladders. And the uſe of theſe parts both in Beavers and Hares is this; that againſt rain both one and other ſex ſuck thereout a certain humor, and anoint their bodies all over therewith, and ſo are defended in time of rain. The belly of a Sow, a Bitch, and a Hare, have many cels in them, becauſe they bring forth many at a time, when a Hare lyeth down, ſhe bendeth her hinder legs under her loins, as all rough-footed Beaſts do.

They are deceived, which deliver by authority of holy Scriptures, that Hares love to lodge them upon Rocks, but we have manifeſted elſe-where, that thoſe places are to be underſtood of Conies. They have fore-knowledge both of winde and weather, Summer and Winter by their noſes, for in the Winter they make their forms in the Sun-ſhine, becauſe they cannot abide froſt and cold, and in the Summer they reſt toward the North, remaining in ſome higher ground, where they receive colder air.

Ælianus. Their nature and diſpoſition.

We have ſhewed already that their ſight is dim, but yet herein it is true that *Plutarch* ſaith, they have *Viſum indeſeſſum*, an indefatigable ſenſe of ſeeing, ſo that the continuance in a mean degree, countervaileth in them the want of excellency. Their hearing is moſt pregnant; for the *Egyptians* when they ſignifie hearing, picture a Hare; and for this cauſe we have ſhewed you already that their ears are long like horns, their voyce is a whining voyce, and therefore Authors call it *Vagitum*, as they do a young childes, according to the verſe of *Ovid*:

Intus ut infanti vagiat ore Puer.

Their time of ſleep and food.

They reſt in the day time, and walk abroad to feed in the night, never feeding near home, either becauſe they are delighted with forein food, or elſe becauſe they would exerciſe their legs in going, or elſe by ſecret inſtinct of nature, to conceal their forms and lodging places unknown; their heart and bloud is cold, which *Albertus* aſſigneth for a cauſe of their night-feeding: they eat alſo Grapes, and when they are overcome with heat, they eat of an herb called *Lactuca Leporina*, and of the *Romans*, and *Hetrurians*, *Ciſerbita*, of the *Venetians*, *Lactucinos*; of the *French*, *Lacterones*; that is, Hares-lettice, Hares-houſe, Hares palace; and there is no diſeaſe in this Beaſt the cure whereof ſhe doth not ſeek for in this herb. Hares are ſaid to chew the cud in holy Scripture, they never drink, but content themſelves with the dew, and for that cauſe they often fall rotten. It is reported by *Philippus Belot*, that when a Hare drunk Wine, ſhe inſtantly dyed; they render their urine backward, and their milk is as thick as a Swines, and of all creatures they have milk in udders before they deliver their young.

Ælianus.

They are very exceedingly given to ſleep, becauſe they never wink perfectly: ſome Authors derive their name *Lagon* in *Greek*, from *Laein* to ſee, and thereupon the *Græcians* have a common proverb *Lagos Catheudon*, a ſleeping Hare for a diſſembling and counterfeiting perſon, becauſe the Hare ſeeth when ſhe ſleepeth; for this is an admirable and rare work of Nature, that all the reſidue of her bodily parts take their reſt, but the eye ſtandeth continually ſentinel. Hares admit copulation backward, and herein they are like to Conies, becauſe they breed every moneth for the moſt part, and that many; at that time the female provoking the male to carnal copulation, and while they have young ones in their belly they admit copulation, whereby it cometh to paſs, that they do not litter all at a time, but many dayes aſunder, bringing forth one perfect, and another bald without hair, but all blinde like other cloven-footed-beaſts. It is reported that two Hares brought into the Iſle *Carpathus*, filled that Iſland with ſuch abundance, that in ſhort time they deſtroyed all the fruits, whereupon came

Of their copulation and engendering.

the proverb *Carpathius Leporem*, to ſignifie them which plow and ſow their own miſeries.

It falleth out by divine Providence, that Hares and other fearfull Beaſts which are good for meat, ſhall multiply to greater numbers in ſhort ſpace, becauſe they are naked and unarmed, lying open to the violence of men and beaſts, but the cruel and malignant creatures, which live only upon the devouring of their inferiours, as the Lyons, Wolves, Foxes, and Bears, conceive but very ſeldom, becauſe there is leſs uſe for them in the world, and God in his creatures keepeth down the cruel and ravenous, but advanceth the ſimple, weak, and deſpiſed: when the female hath littered her young ones, ſhe firſt licketh them with her tongue, and afterward ſeeketh out the male for copulation.

Hares ſeldom tamed.

An example of a tame Hare.

Hares do ſeldom wax tame, and yet they are amongſt them, which are neither *Placidæ* nor *Feræ*, tame nor wilde, but middle betwixt both, and *Cardane* giveth this reaſon of their untameable nature, becauſe they are perſwaded that all men are their enemies. *Scaliger* writeth, that he ſaw a tame Hare in the Caſtle of Mount-*Peſal*, who with her hinder legs would come and ſtrike the Dogs of her own accord, as it were defying their force, and provoking them to follow her. Therefore for their meat they may be tamed and accuſtomed to the hand of man, but they remain uncapable of all diſcipline, and ignorant of their teachers voyce, ſo as they can never be brought to be obedient to the call and command of their teacher, neither will goe nor come at his pleaſure.

Ælianus.

The ſubtilty of Hares.

The defence of the Hare againſt her enemies.

It is a ſimple creature, having no defence but to run away, yet it is ſubtile, as may appear by changing of her form, and by ſcraping out her footſteps when ſhe leapeth into her form, that ſo ſhe may deceive her Hunters, alſo ſhe keepeth not her young ones together in one litter, but layeth them a furlong one from another, that ſo ſhe may not loſe them all together, if peradventure men or beaſts light upon them. Neither is ſhe careful to feed her ſelf alone, but alſo to be defended againſt her enemies, the Eagle, the Hawk, the Fox, and the Woolf, for ſhe feareth all theſe naturally, neither can there be any peace made betwixt her and them, but ſhe rather truſteth the ſcratching brambles, the ſolitary woods, the ditches and corners of rocks or hedges, the bodies of hollow trees, and ſuch like places, then a diſſembling peace with her adverſaries.

Albertus.

The wilde Hawk when ſhe taketh a Hare, ſhe ſetteth one of her talons in the earth, and with the other holding her prey, ſtriving and wreſtling with the Beaſt untill ſhe have pulled out his eyes, and then killeth him. The Foxes alſo compaſs the poor Hare by cunning, for in the night time when he falleth into her foot-ſteps, he reſtraineth his breath, and holdeth in his ſavour, going forward by little and little, untill he finde the form of the Hare, and then thinking to ſurprize her, on a ſudden leapeth at her to catch her; but the watchful Hare doth not take ſleep after a careleſs manner, delighting rather in ſuſpition than ſecurity, when ſhe perceiveth the approaching of ſuch a gueſt, (for ſhe windeth him with her noſtrils) and thinketh it better to go from home, than make a feaſt to her foe.

Wherefore ſhe leapeth out of her form and runneth away with all ſpeed ſhe can. The Fox alſo followeth, but a far off, and ſhe hearing her adverſary no more, betaketh her ſelf to reſt again, under ſome bramble, or other buſh, ſuppoſing that the ground ſhe hath gotten ſhall never be recovered of her again: but the Proverb is old and true, Fair and ſoftly goeth far; ſo the Fox which ſeldom getteth meat, but winneth it with his wit and his heels, followeth as faſt as he can; for a ſlow pace overtaketh the Hare at reſt, which when ſhe perceiveth, forth ſhe goeth again, forſaking her quiet ſleep, for the ſafe-gard of her life, and having gone ſo much ground as ſhe did before, ſhe betaketh her to reſt the ſecond time, hoping that now ſhe hath quit her ſelf from her foe; but the Foxes belly hath no ears, and therefore hunger is to him like a thouſand whips, or a whole kennel of Hounds, forcing him forward after his game.

The Hare for her better ſafegard getteth up into ſome ſmall tree, being ſleepy and weary through the Foxes purſute; the Fox cometh to the tree and ſhaketh it by the roots, and will not ſuffer the Hare to take any reſt, for he hopeth that time and travel will bring her to his diſh; ſhe leaps away again, and letteth no graſs grow under his feet, hoping that her heels ſhall deliver her from the Foxes teeth: After follows the Fox, and at length (as the greater purſe over-weigheth the ſmaller, and the great Horſe of War over-wearieth the little hunting Nag,) ſo doth the luſty limbs of the Fox, out-laſt the weak legs of the Hare, and when ſhe can go no more, needs muſt her weakneſs betray her to her foe, and ſo was her flight and want of reſt like a ſickneſs before her death, and the Foxes preſence like the voyce of a paſſing bell.

Ælianus.

And on the contrary, all the labour of the Fox, like a gentle and kinde exerciſe for the preparing of his ſtomach to ſuch a feaſt. The fift and leaſt kinde of Wolves are alſo enemies to Hares, and the Weaſil do craftily ſport and play with the Hare untill he have wearied him, and then hangeth faſt upon her throat, and will not loſe her hold, run the Hare never ſo faſt, till at laſt through want of breath, and loſs of bloud, ſhe falleth into the hands of her cruel play-fellow, who turneth ſport into good earneſt, and taketh nothing from her but her bloud, leaving her carcaſe to be devoured by the hands of others, and in this manner is the ſilly Hare hunted by beaſts: Now let us hear how ſhe is hunted of men.

The hunting of Hares.

It is before expreſſed, that every limb of a Hare is compoſed for celerity, and therefore ſhe never travelleth but jumpeth, her ears lead her the way in her chaſe, for with one of them ſhe harkeneth to the voyce of the Dogs, and the other ſhe ſtretcheth forth like a ſail to haſten her courſe, always ſtretching her hinder-feet beyond her former, and yet not hindering them at all; but ſometimes when her ardent deſire maketh her ſtrain to fly from the Dogs, ſhe falleth into the nets, for ſuch is the ſtate of the miſerable, that while they run from one perill, they fall into another; according to the ſaying of holy Scripture, Iſa. 24. *He that ſcapeth out of the ſnare, ſhall fall into the ditch.* And this is to be noted, that if the Hare had the wit to run forthright, and never to turn, ſhe could not be ſo eaſily over-taken; but becauſe of her love to the place of her breed, there ſhe is taken and loſeth her life where ſhe had her beginning: for ſhe preferreth that place above all other for ſafety. Again ſome of the elder Hares, aſſoon as they hear the Dogs, fly to the tops of the high Mountains, for they more eaſily run up the hill, then down.

Wherefore the Hunter muſt ſtudiouſly avoid that diſadvantage, and keep her down in the vallies. In paths and high ways ſhe runneth more ſpeedily, wherefore they muſt be kept from that alſo. The Hares of the Mountains do oftentimes exerciſe themſelves in the plain, and through practiſe grow acquainted with the neereſt ways to their own lodging; ſo that if at any time the husbandmen ſet upon them in the fields, they dally with them till they ſeem to be almoſt taken, and then on a ſudden take the neereſt way to the Mountains, not ſuſpected by the Hunters, and ſo take ſanctuary in the unacceſſible places, whither Dogs nor Horſe dare aſcend. For the Hares which we keep in the buſhes are not able to endure labour, and not very ſwift (by reaſon of the pain in their feet) growing fat through idleneſs and diſcontinuance of running, they muſt be hunted on this ſort: firſt of all they go through young woods and hedges, ſuch as grow not very thick, for the thicker hedges they leap over, but when they come to many thick places that they muſt leap over, they quickly fall down and are tired.

The Dogs firſt of all go from them careleſly, becauſe they cannot ſee them through the trees, but ſuffer them to run in the Woods following a far off by the ſcent, untill at laſt they get the ſight of her, and through their better exerciſe and skill, eaſily overtake her: but the campeſtrial or Field-hare being leaner of body, and oftner chaſed, is taken with more difficulty, by reaſon of her ſingular agility, ſhe therefore when ſhe begins her courſe, leapeth up from the ground as if ſhe flew; afterward paſſeth through brambles and thick buſhes with all expedition; and if at any time ſhe come into deep graſs or corn ſhe eaſily delivereth her ſelf and ſlideth through it. And as it is ſaid of the Lyons, that with their tails they ſtir up their ſtrength and courage; ſo are the ears of this Beaſt like Angels wings, Ships ſails, and rowing Oars, to help her in her flight; for when ſhe runneth ſhe bendeth them backward, and uſeth them in ſtead of ſharp ſpurs to prick forward her dulneſs, and in her courſe ſhe taketh not one way, but maketh heads like labyrinths to circumvent and trouble the Dogs, that ſo ſhe may go whither ſhe will, always holding up one ear, and bending it at her pleaſure to be the moderator of her chaſe. Neither is ſhe ſo unprovident or prodigal of her ſtrength, as to ſpend it all in one courſe, but obſerveth the force of her proſecutor, who if he be ſlow and ſluggiſh, ſhe is not profuſe of her celerity, but only walketh gently before the Dogs, and yet ſafely from their clutches, reſerving her greateſt ſtrength to her greateſt neceſſity; for ſhe knoweth that ſhe can out-run the Dogs when ſhe pleaſeth, and therefore it is a vain conceit to trouble her ſelf more then ſhe is urged. But if there be a Dog following her more ſwiftly then the reſidue, then ſhe ſetteth forward with all the force ſhe can, and when ſhe hath left both Hunters and Dogs a great way behinde her, ſhe getteth to ſome little hill or riſing of the earth, there ſhe raiſeth her ſelf upon her hinder legs, like a Watch-man in his Tower, obſerving how far or near the enemy approacheth, and perceiving that ſhe is delivered from perſuit of all danger, ſeemeth to deride the imbecillity of their forces.

The younger Hares by reaſon of their weak members, tread heavier upon the earth then the elder, and therefore leave the greater ſavour behinde them: and in ancient time, if the Hunters had taken a young Leverit, they let her go again in the honour of *Diana*. At a year old they run very ſwift, and their ſavour is ſtronger in the Woods then in the plain fields.

The Hare is followed by the foot and ſo deſcryed, eſpecially in ſoft grounds or high-ways, but if they go to the Rocks, to the Mountains, or to the hollow places, they are more uncertain, if they ly down upon the earth (as they love to do) in red fallow grounds they are eaſily deſcryed.

When they are ſtarted in the plain fields they run far, but in the Woods they make ſhort courſes: If they hear the Dogs, they raiſe themſelves on their legs and run from them; but if fearful imagination oppreſs them, as they oftentimes are very ſad and melancholy, ſuppoſing to hear the noiſe of Dogs where there are none ſuch ſtirring, then do they run to and fro, fearing and trembling, as if they were fallen mad.

Their footſteps in the Winter time are more apparent then in the Summer, becauſe as the nights be longer, ſo they travel farther: neither do they ſmell in the Winter mornings ſo ſoon as it is day, untill the froſt and ice be thawed, but eſpecially their footſteps are uncertain in the full Moon, for then they leap and play together, ſcattering and putting out the ſavour; nor in the Spring time alſo when they do ingender, they confound one anothers footſteps by multitude.

They which will go forth to hunt or take pleaſure in that paſtime, muſt riſe early, leſt they be deprived of the ſmell of her footſteps, ſo ſhall not the Dogs be able any way to finde the Hare, nor the Hunters their game and paſtime: for the nature of the footſtep remaineth not long, but ſuddenly in a manner vaniſheth away every hour. Again, they muſt ſet the Hils and Rocks, the Rivers, and alſo the Brooks with nets and gins, thereby as it were ſtopping up the ſtarting holes, paths, and ways, wherein the Hare for the moſt part truſteth, whether they be broad or narrow: The beſt time for the effecting and bringing hereof is after the Sun-riſing, and not in twylight or break of the day, leſt the nets be ſet neer the Hares form, and ſhe be ſcared away, but if they be ſet a far off, there is no danger of her departure after the Sun is up, becauſe then ſhe giveth her ſelf to ſleep: the nets muſt be ſet on this manner, let the rodes be pitched upright, faſtning their ſnares to the tops, raiſing the net in the middle, and hang a long ſtone at one ſide, that when the Hare is in the net ſhe may not go out again. When the Hare is raiſed, he which followeth her to the nets, muſt drive her in with a great cry, and being in the net, he muſt gently reſtrain the Dogs, and make ſignification to the hunter that ſhe is taken, or elſe if it fail, let him ſhew the contrary.

The keeper of the nets muſt keep ſilence, leſt by hearing of his voice ſhe be averted, and the hunter muſt take the Dogs and go to the forme, there to ſtart the Hare; and the faſhion was in ancient time among the *Pagans*, firſt of all to call upon *Apollo* and *Diana*, (their imagined Gods of hunting) to ſpeed their ſport, and to whom they promiſed part of their game. But when the Dog is ſent forth, and after much winding and caſting about, falleth into the footſtep of the Hare, then let him looſe another, and ſeeing them run in one courſe, uncouple all the Hounds, let him follow after, ſpeaking to his Dogs by name, ſaying now *A*, then *B. Hoika C.* and ſuch like words of Art, not preſſing them too eagerly at the beginning, but gently encouraging them to the purſuit.

The Dogs take this for a ſign of joy, and being glad to gratifie their Maſters run along with a gallant cry, turning over the doubtful footſteps; now one way, then another, like the cuts of Indentures, through rough and plain, crooked and ſtraight, direct and compaſs, wagging of their tails, and gliſtering with their eyes, untill they finde the Hares form: then they make ſignification thereof to the hunter with their tails, voices, and paces; now running together, now ſtanding ſtill divided aſunder, they ſet upon the beaſt, who ſuddainly riſeth and turns the cry of the Hounds after her flight, then muſt the Hunters cry out, *Jo* Dogs, there boyes, there, *Jo*, *A*, *Jo*, *B*, *Jo*, *C*, and the ſhorteſt word is fitteſt to applaud the Dogs.

Let the Hunter alſo run after, ſo as he never meet the Hare and trouble the hounds, the poor Hare gets her out of ſight, and runs to the place where ſhe was firſt ſtarted, but if ſhe fall into the nets by the way, the keeper of the nets muſt give token to the Hunters by his hollowing voice, after the uſual manner of woodmen: *O oha*, *O ohe*, that the game is at an end, and then call the Dogs by name. If the Hare run far, and ſtand long on foot, and if the Dogs paſſe over the Hares footſteps and diſcry them not, then muſt the Hunter recall them with a peculiar hunting term, and lead them to the place, or caſting himſelf about it as near as he can, rebuking the Dogs that range at uncertainties, and exhorting them that be diligent; who when they have found the footings again, run on as before, with all alacrity. In the mean ſeaſon let the Hunter ſtand ſtill till the Dogs do infallibly demonſtrate unto him that they have found the game again, then let the Hunter proceed as before, exhorting his Dogs to the ſport, and if it laſt all day, the Hunter muſt regard that he reſtrain and keep the Dogs to the wearied Hare, leſt if they ſtart a freſh one, their labour be loſt. If it be in Summer about noon, let him reſt his Dogs for ſtrengthning of their feet till the heat be over; if it be ſnowie weather, and the winde ſet Northerly, the footſteps remain long and are not eaſily melted, but if the South winde blow, the footſteps are very quickly ſhortned: and neither when the ſnow falleth faſt, or the winde bloweth ſtrong, muſt the Dogs be led forth to hunting, for the ſnow burneth the Dogs noſe, and the froſt killeth the heat of the Hares foot; then let the Hunter take his nets and ſome other companion with him, and go to the Woods or Mountains, tracing out the footſteps of the beaſt in the ſnow unto the form, which is in ſome ſteep or ſhadowed place, where the windes blow over the ſnow, for in ſuch places doth the Hare ſeek her lodging; having found it, let him not come too neer, leſt he raiſe her from her ſeat, but caſt round about, and if he find no footings from that place, he may take it for granted that the Hare is found.

Having ſo done, let him leave her, and ſeek another before the ſnow be melt, and the footings daſhed, having reſpect to the time of the day, that ſo he may incloſe and take them before the evening: then let him draw his nets round about them, compaſing the whole plat wherein ſhe reſteth, and then raiſe her from her ſtool: if ſhe avoide the net, he muſt follow her by the foot unto her next lodging place, which will not be far off, if he follow her cloſe, for the ſnow doth weary her and clot upon her hinder feet, ſo as the Hunter may take her with his hand, or kill her with his ſtaffe.

Blondus ſheweth another way of taking Hares: The Hunters ſpread and divide themſelves by the untilled and rough wayes, leading a Gray-hound in a ſlip, beating the duſhes, hedges, and thorns, and many times ſending before them a quick ſmelling Hound, which raiſeth the Hare out of her muſe, and then let go the Gray-hound with hunting terms, and cryes, exhorting him to follow the game; and many times the Dogs tear the Hare into many pieces, but the Hunters muſt pull them bleeding from the mouth of their Dogs.

Others again lie in wait behinde buſhes and trees to take the Hare on a ſudden, and ſome in the Vineyards, for when they are fat and reſty, they are eaſily overtaken, eſpecially in the cold of Winter. *Cyrus* (as appeareth in *Xenophon*) was taught to make ditches for the trapping of Hares in their courſe, and the Eagles and Hawkes watch the Hare when ſhe is raiſed and hunted by the Hounds, and ſet upon her on the right ſide, whereby they kill and take her, ſo that it is true which was ſaid at the beginning, that Hares are hunted by Men and Beaſts.

Of Parkes and Warrens of Hares.

Having thus diſcourſed of Hunting and taking of Hares, now it followeth alſo in a word or two to diſcourſe of Parks or incloſed Warrens, wherein Hares, Conies, Deer, Bores, and other ſuch beaſts may alwayes be ready, as it were out of a ſtore houſe or Seminary, to ſerve the pleaſure and uſe of their Maſters. *Grapaldus* ſaith, that the firſt *Roman* that ever incloſed wilde beaſts, was *Fulpius Harpinus*, and *Gellius* ſaith, that *Varro* had the firſt Warren of Hares: the manner was (ſaith *Columella*) that Richmen poſſeſſed of whole Towns and Lordſhips, neer ſome Village, incloſed a piece of land by pail, mudwall, or buſh, ſtoring the ſame with divers wilde beaſts, and ſuch a one there was in the Lordſhip that *Varro* bought of *Marcus Piſo* in *Tuſculanum*; and *Quintus Hortenſius* ſaw at *Lauretum* a wood incloſed, containing fifty Acres, wherein were nouriſhed all ſorts of wilde beaſts, within the compaſs of a wall.

Quintus Althea commanded his Forreſter to call the beaſts together before him, and his gueſts ſitting at Supper, and inſtantly he ſounded his pipe, at the voice whereof there aſſembled together a great company of all ſorts, to the admiration of the beholders. *Quintus Fulvius* had a Park in *Tarquinium*, wherein were included not only all the beaſts before ſpoken off, but alſo wilde Sheep, and this contained forty Acres of ground. beſides he had two other. *Pompeius* erected a Parke in *France*, containing the compaſs of three thouſand paces, wherein he preſerved not only Deer, Hares, and Conies, but alſo Dor-miſe, Bees, and other Beaſts: the manner whereof ought to be thus; firſt that the wals or pales be high, or cloſe joynted, ſo as neither Badgers, nor Cats may creep through, or Wolves, or Foxes, may leap over: Wherein ought alſo to be buſhes, and broad trees for to cover the beaſts againſt heat and cold, and other ſecret places to content their natures, and to defend them from Eagles and other ravening Fowls: In which, three or four couple of Hares do quickly multiply into a great Warren. It is alſo good to ſow Gourds, Miſeline, Corn, Barly, Peas, and ſuch like, wherein Hares delight and will thereby quickly wax fat. For their fatting, the Hunters uſe another deviſe, they put Wax into their ears, and ſo make them deaf, then turn them into the place where they ſhould feed, where being freed from the fear of ſounds (becauſe they want hearing) they grow fat before other of their kinde.

The civil uſe of their ſeveral parts.

Concerning the uſe of their skins, in ſome Countries they make ſleeves and breeches of them, eſpecially lynings for all outward cold diſeaſes, *Heliogabalus* lay upon a bed filled with flew or wool of Hares, for than that, there is nothing more ſoft, for which cauſe the *Grecians* made ſpunges thereof, to clenſe the eyes of men. The Goldſmiths uſe the feet or legs of Hares in ſtead of bruſhes or brooms, to take of the duſt from their plate. The fleſh of Hares hath ever been accounted a delicate meat (among all other four-footed beaſts) as the Thruſh among the fowls of the air, according to the ſaying of *Martial*:

Inter aves Turdus, ſi quis me judice certet,
Inter quadrupedes, gloria prima lepus.

In ancient time (as *Cœlius* ſaith) the *Britans* were forbidden to eat Hares, like as the *Jews* by the law of *Moſes*, Lev. 11. Deut. 14. *Plutarch* enquireth the reaſon why the *Jews* worſhip Swine, and Hares, becauſe they did not eat their fleſh: whereunto anſwer was made, that they abſtained from Hares, becauſe their colour, ears and eyes, were like Aſſes; wherein the ignorance of Gods law appeared, for they abſtained from Hares at Gods commandment, becauſe they were not cloven-footed, for the *Egyptians* accounted all ſwift creatures to be partakers of Divinity.

Their fleſh ingendereth thick bloud, therefore it is to be preſcribed for a dry diet, for it bindeth the belly, procureth urine, and helpeth the pain in the bowels: but yet it is not good for an ordinary diet, it is hot and dry in the ſecond degree, and therefore it nouriſheth but little being ſo hard, as *Gallen* witneſſeth.

The bloud and fleſh eaten.

The bloud is far more hot then the fleſh, it is thin, and therefore watery like the bloud of all fearfull beaſts; the hinder parts from the loins are moſt delicate meat, called in *Latin*, *Pulpamentum*, it was wont to be dreſſed with ſalt, and Coriander ſeed, yet the forepart is the ſweeter, for the manner of the dreſſing whereof I leave to every mans humour. It was once believed that the eating of the hinder loins of a Hare would make one fair, or procure beauty, whereupon *Martial* received a Hare from *Gellia* a friend of his with this meſſage;

Formoſus ſeptem Marce diebus eris.

And he retorted the jeſt in this manner upon *Gellia*;

Si me non fallis, ſi verum (lux mea) dicis,
Edisti nunquam, Gellia, tu leporem.

Lampridius writeth that a certain Poet played upon *Alexander Severus* the Emperour for eating Hares fleſh, which made him fair, whereas in truth he was very black; In this manner:

Pulchrum quod vides eſſe noſtrum regem,
Quem Syrum ſuum detulit propago,

Venatus facit, & lepus comeſus,
Ex quo continuum capit leporem.

The Emperour ſeeing thoſe Verſes, for Emperours have long ears and hands, made anſwer unto them as followeth;

Pulchrum quod putas eſſe veſtrum regem
Vulgari (miſerande) de fabella,
Si verum putas eſſe, non iraſcor;
Tantum tu comedas velim lepuſculos,
Ut fias animi malis repulſis
Pulcher, ne invideas livore mentis.

If any man finde fault with the Emperours Verſes, *Eraſmus* hath already anſwered the objection, that Kings and Emperours are not ſubject to laws of verſifying; beſides his anſwer was in *Greek*, and this but tranſlated.

The Epithets of Hares.

Stories of monſtrous Hares.

The eating of Hares procureth ſleep, and thus much for the fleſh and parts. The Epithets of a Hare expreſſing their natures are, Eared, truſting their feet, fearful, careful, fruitful, flying, raging, unhorned, little, crafty, tender, ſharp-ſmelling, ſwift, whining, and wandring, beſides many other *Greek* names. When *Xerxes* gathered his Army to go againſt *Grecia*, a Mare brought forth a Hare, which foreſhewed that great Army ſhould work no ſtrange effect. And another Mare of three years old brought forth an Hare which ſpake as ſoon as it was littered, biting her mother with her teeth, and killing her, and while they looked upon her, ſucking her dams bloud, feathers grew out of her back in faſhion of wings, which being done, the monſter lifting up the voice, ſpake in this manner; *Fundite jam lachrymas & ſuſpiria miſeri mortales, ego hinc abeo*: that is to ſay, O ye wretched mortal men weep and ſigh, I go away: at which words ſhe flew away and was never ſeen more.

There were preſent at the ſight hereof ſeven publick notaries, which called witneſſes and made inſtruments thereupon, (as *Antonius Bautius* writeth in his Epiſtle to *Petrus Toletus* of *Lyons* in the year 1537. in *December*:) whereunto the ſaid *Toletus* made this anſwer, The dayes ſhall come (ſaith he) except the mercy of God prevent them, that children ſhall think they do obedience to their Parents if they put them to death.

They ſhall grieve becauſe they were born, and ſay they are adulterate, as the Hare that was born of the Mare. Likewiſe it is reported by *Liſander*, that when the *Corinthians* refuſed the conduct of the *Lacedemonians*, and the *Lacedemonians* beſieging the City, fell to be very much afraid, and unwilling to ſcale the wals; whiles they ſtood in this amaze, ſuddenly a Hare leaped out of the town ditch; which thing when *Liſander* ſaw, he exhorted his Souldiers, ſaying, Be not afraid (O ye *Spartans*) of this ſluggiſh and unexerciſed people, for you ſee they ſtir not out of the City, but ſuffer Hares to lodge under their wals; whereupon came the proverb (*Dormire lepores ſub mœnibus*) Hares ſleep under their wals, to ſignifie a ſlothfull, ſecure, ſluggiſh, idle, and unthrifty people.

The Eagles of *Norway* lay their young ones in Hares ſkins, which themſelves pull off. There is alſo a bird in *Scythia*, about the bigneſs of a Buſtard, which bringeth forth two at a time, and keepeth them in a Hares ſkin which he hangeth upon a bough. Hares were dedicated to love, becauſe (*Xenophon* ſaith) there is no man that ſeeth a Hare but he remembreth what he hath loved.

They ſay the City *Bocas* of *Laconia* was builded by a ſign of good fortune taken from a Hare, for when the Inhabitants were driven out of their Countrey they went to the Oracle to deſire a place to dwell in, from whom they received anſwer, that *Diana* ſhould ſhew them a dwelling place: they going out of their Countrey a Hare met with them, which they conſented to follow, and there to build where the Hare ſhould lodge, and they followed her to a Myrtle tree, where the Hare hid her ſelf, in which place they builded their City, and ever afterwards retained with veneration a Myrtle tree. And thus I will conclude this moral diſcourſe of Hares, with that Epigram of *Martial* made upon occaſion of a Hare that in ſport paſſed through the mouth and teeth of a tame Lion, ſaying that ſhe was ambitious in offering her life to the Lions teeth in this wiſe:

Pauſanias.

Non facit ad ſævos cervix niſi prima leones,
Quid fugis hos dentes, ambitioſe lepus?
Scilicet a magnis ad te deſcendere tauris,
Et quæ non cernunt frangere colla velint.
Deſperanda tibi eſt ingentis gloria fati:
Non potes hoc tenuis præda ſub hoſte mori.

The medicines of Hares. *Pliny.*

The powder of a Hare with oil of myrtle, driveth away pain in the head, and the ſame burned cureth the Cough: the powder thereof is good for the ſtone in the bladder: alſo the bloud and fime of a Hare burnt in a raw pot to powder, afterwards drunk faſting with Wine and warm water, it cureth the ſtone: and *Sextus* ſaith, he made triall of it by putting a ſpoonful of the powder into water wherein was a ſand ſtone, and the ſame ſtone did inſtantly melt and diſſolve: ſo likewiſe a young Hare cut out of the dams belly and burnt to powder, hath the ſame operation. A waſtcoat made of Hares ſkins ſtraighten the bodies of young and old: alſo the ſame dipped in Oil laid to the ſore places of a Horſes legs where the ſkin is off by over reaching, it often cureth the ſore: the bloud taken warm out of the body amendeth Sun burning, freckles, pimples, and many other faults in ſkin and face; which *Celſus* preſcribeth to be done, firſt by waſhing the place many hours together, in the morning with the bloud, and afterwards anointing it with oil: the ſame virtue is in the fat of Swans mingled with oil, according to the ſaying of *Serenus*:

Cygnæos adipes hilari miſceto Lyæo,
Omne malum propere maculoſo ex ore fugabis,
Sanguine vel leporis morbus delabitur omnis.

It alſo cureth and taketh away the thick ſkin of the eye, it adorneth the ſkin, produceth hair in bald places, and eaſeth the Gowt.

Orno cutim, produco pilos, & ſedo podagram,
Sanguine ſi fuerint membra peruncta meo.

It being fryed, helpeth the Bloudy flux, Ulcers in the bowels, and old laske, and taketh away the poiſon of an arrow; it being anointed upon a hot outward Ulcer, it ripeneth it. After a bath, it cureth a great Leproſie by waſhing. The Rennet of a Hare ſtayeth looſeneſs, the fleſh is profitable for Ulcers in the bowels, it breaketh the ſtone being beaten, and being decocted like a Fox eaſeth the Gowt and the ſhrinking up of the ſinews. The fat with the flowers of beans beaten together, draweth thorns out of the fleſh: If a nail ſtick in the ſole of the foot, beat together the fat of a Hare and a raw Sea-crab, then lay it to the place, and right againſt it upon the ſame foot lay alſo two or three Bean flowers, and let it lie a day and a night, and ſo it ſhall be cured: and the ſame draweth a poiſoned Arrow out of a Horſe. *Andreas* reporteth to *Geſner*, that he hath often heard that the ſewet of a Hare layed to the crown of a Womans head, expelleth her ſecunds, and a dead childe out of the womb. The powder made of this wool or Hair ſtancheth bleeding, if the hairs be pulled off from a live Hare, and ſtopped into the noſe.

The powder of the wool of a Hare burned, mingled with the Oil of Myrtles, the gall of a Bull, and Allum warmed at the fire, and anoint it upon the head, faſteneth the hair from falling off: alſo the ſame powder decocted with hony, helpeth the pain in the bowels, although they be broken: being taken in a round ball the quantity of a Bean together; but theſe medicines muſt be uſed every day.

Arnoldus preſcribeth the hair to be cut ſhort, and ſo to be taken into the body againſt burſtneſs: A perfume made of the dung and hairs of a Hare, and the fat of a Sea-calfe, draweth forth Womens flowers. The ſeed of a wilde Cowcumber, and an Oyſter ſhell burned, and put into Wine, mingled with the hair of a Hare, and wool of a Sheep, with the flower of Roſes, cureth inflamations of Womens ſecrets after their child-birth. Alſo *Hippocrates* preſcribeth the ſhell of a Cuttle-fiſh to be beaten into Wine and layed in Sheeps wool and Hares hair, helpeth the falling down of the womb of a Woman with childe. If a mans feet be ſcorched with cold, the powder of a Hares wool is a remedy for it. The head of a Hare burned and mingled with fat of Bears and Vinegar, cauſeth hair to come where it is fallen off, and *Galen* ſaith that ſome have uſed the whole body of a Hare ſo burned and mingled for the foreſaid cure, being layed in manner of a plaiſter.

By eating of a Hares head, the trembling of the Nerves and the loſſe of motion and ſenſe in the members receiveth ſingular remedy. Theſe things alſo preſerve teeth from aking: the powder of a Hares head burned with ſalt mingled together, rubbed upon the teeth, or if you will put thereunto the whiteſt Fennel, and the dryed beans of a Cutle fiſh.

The *Indians* burn together the Hares head and Mice for this purpoſe. When ones mouth ſmelleth ſtrong, this powder with Spicknard aſſwageth the ſmell. The brain is good againſt poiſon. The heart of a Hair hath in it a theriacal virtue alſo. The brain is proved to have power in it for comforting and repairing the memory. The ſame ſod and eaten helpeth tremblings which happen in the acceſſions of ſickneſs, ſuch an one as is in the cold ſhaking fit of an Ague: It is to be noted, that all trembling hath its original cauſe from the infirmity or weakneſs of the Nerves, as is apparent in old age, although the immediate cauſes may be ſome cold conſtitution, as abundance of cold humors, drinking of cold drink, and ſuch like; all which tremblings are cured by eating the brain of a Hare roaſted, (ſaith *Dioſcorides* and *Eyſeta*.) It alſo helpeth children to breed teeth eaſily, if the gums be rubbed therewith, for it hath the ſame power againſt inflamation, that hony and butter hath: Being drunk in Wine and the ſtones thereof roſted and eaten, it is good for him that hath any pain in his bladder, and if the Urine exceed ordinary, for ſtaying thereof, take the brain hereof to be drunk in wine.

Serenus.

The tooth of a Hare layed to that part where the teeth ake, eaſeth them. Take the Maw with the dung in it, and waſh it in old wine ſo as the dung may mingle therewith, and then give it to one ſick of the Bloudy-flux, and it ſhall cure him. The Rennet hath the ſame virtue that is in a Calves

Raſis.

Ariſtotle. *Galen.*

or Kids, and whereas *Nicander* praiſeth it in the firſt place, for the virtue it hath in it againſt poiſon, *Niccon* an ancient Phyſitian giveth it the ſecond place, for it is full of ſharp digeſting power, and therefore hath a drying quality. It diſſolveth the congealed and coagulated milk in the belly, and alſo clotted bloud within in the ſtomach more effectually then the Rennet of any other beaſt, being alway the better for the age.

Dioſcorides.

Being mingled with Vinegar, it is drunk againſt poiſon; and alſo if a Man or Beaſt be anointed with it, no Serpent, Scorpion, Spider, or wilde Mouſe, whoſe teeth are venomous will venture to ſting the body ſo anointed; or elſe inwardly take thereof three ſpoonfuls with Wine againſt the ſaid bitings, or of any Sea-fiſh or Hemlock after the wound received; and with Vinegar it is ſoveraign againſt all poiſon of *Chamæleons*, or the bloud of Buls.

Marcellus.

The ſame being drunk in Vinegar, or applyed outwardly to womens breaſts, diſperſeth the coagulated milk in them: alſo being mingled with Snails, or any other ſhelfiſh, which feed upon green herbs or leaves, it draweth forth Thornes, Darts, Arrowes, or Reeds out of the belly: or mingled with gum of Frankincenſe, Oil, bird lime, and Bees-glew, of each an equall quantity with Vinegar, it ſtancheth bloud, and all iſſues of bloud flowing out of the belly: and it alſo ripeneth an old ſore, according to the ſaying of *Serenus*;

Si inducas leporis aſperſa coagula vino.

Dioſcorides.

Being layed to the Kings evill in Lint with Vinegar, it diſperſeth and cureth it: alſo it healeth Cankers, it cureth a Quartan Ague; alſo mixed with Wine and drunk with Vinegar, againſt the Falling evill and the ſtone in the bladder: If it be mixed with *Sagapanum* and Wine *Amyny*, and infuſed into the ears, giveth help, as alſo the pain of the teeth. It diſſolveth bloud in the lights, and eaſeth the pain of bloud congealed in your ſtomach: when one ſpitteth bloud, if he drink *Samia* and Myrtle with the Rennet of a Hare, it ſhall give him very preſent eaſe.

The latter learned Phyſitians take a drink made of Vinegar and Water, and give it warm to eject and expell bloud out of the Lights; and if any drop thereof cleave in the bowels, then do they three or four times together iterate this potion, and after apply and miniſter all binding aſtringent medicines and emplaſters, and for the Bloudy flux it is good to be uſed: It is held alſo profitable by *Dioſcorides* and other the ancients, that if the pap or breſt of a Woman be anointed therewith, it ſtayeth the ſucking Infants looſeneſs in the belly, or elſe given to the childe with Wine, or (if it have an Ague) with Water.

There is, ſaith *Ariſtotle*, in the Rennet a fiery quality, but not in the higheſt degree, for as fire diſſolveth and diſcerneth, ſo doth this in milk diſtinguiſh the airy part from the watery, and the watery from the earthy: Wherefore when one taſteth an old Rennet, he ſhall think he taſteth an old putrified Cheeſe, but as leaven is to bread, which hardneth, joyneth, and ſeaſoneth the ſame, ſo is Rennet to Cheeſe; and therefore both of them have the ſame qualities of diſſolving and binding: *Galen* affirmeth that he cured one of Gowty tumours and ſwellings, by applying thereunto old and ſtrong putrified Cheeſe beaten in a morter, and mixed with the ſalted fat or leg of a Swine. If a Man ſick of the Bloudy flux drink thereof in a reer Egge two ſcruples for two dayes together faſting, it will procure him remedy.

For pacifying the Colick, drink the Rennet of a Hare: the ſame mingled with Gooſe greaſe, ſtayeth the incontinencie of Urine, it alſo retaineth womens flowers. If it be drunk with Vinegar it helpeth the ſeconds, and being applyed with Saffron and the juyce of Leeks, driveth a dead childe out of the womb. If it be drunk three or four dayes together after childe-birth, it cauſeth barrenneſs. There are (ſaith *Pliny*) a kind of Wormes which being bound to Women before the Sun riſing in a Harts skin, cauſe them that they cannot conceive: this power is called *Aſocion.*

Maſarius ſaith, that if a Woman drink this Rennet to her meat before ſhe conceive with childe, ſhe ſhould be delivered of a Male child: and ſuch is the fooliſh opinion of them which affirm at this day, that if men eat parſly or white buds of black ivie, it maketh them unable to carnall copulation.

Aetius. *Sextus.*

The Rennet of a Hare eaſeth and diſperſeth all tumors and ſwellings in Womens breſts: the Lights of a Hare powdred with ſalt, with Frankincenſe, and white wine, helpeth him that is vexed with the Falling ſickneſs, if he receive it thirty dayes together. *Sextus* aſcribeth the ſame remedy to the Hart, and *Pliny* commendeth the Lights to heal the pain in the eyes. Being drunk in powder, it cureth the ſecrets. If the heels be troubled with Kibes, they are healed with the fat of Bears; but if they be wrung with a cold, they are healed with the duſt of a Hares hair, or the powder of the Lights; Likewiſe when the foot is hurt with ſtrait ſhooes, it hath the ſame operation. The ancient *Magi* took the skin of an Oxe in powder, with the Urine of Boyes, and ſprinkled it on the toes of their feet, binding the heart of a Hare to the hands of him that hath a Quartan Ague: and ſome cure it by hanging the heart of a young Hare or Leveret to the neck or arme, in the beginning of the fit of him that is ſo viſited. The heart of a Hare dried mixed with Frankincenſe or Manna in white wine drunk thirty dayes together, cureth the Falling ſickneſs.

Pliny.

For the pain in the belly take the ſame medicine, and drunk with warm water mingled with Samia, cureth the fluxes of women; alſo if a man that hath the flux eat the Liver of a Hare dipped in ſharp Vinegar it helpeth him if he be Liver ſick: or if one have the Falling ſickneſs, eat the quantity of an ounce thereof, and it helpeth him. The Gall of a Hare, the Heart, Lungs, Lights and Liver of a Weaſel, mixed together, three drams, one dram of *Caſtoreum*, four drams of Myrrha; a dram of Vinegar and Hony beat together, cureth him that hath a ſwimming or dizzineſs in his brain. The gall newly taken forth mingled with a like portion of hony, and warm in the skin of an onion, and ſo put into the ear, giveth remedy to him that can hear nothing.

Galen.

If he that is ſick in the milt, that is, if it be over hard, ſwallow down the milt of a Hare not touching it with his teeth, or ſeeing it with his eyes, it cureth him. The belly of a Hare with the intrails toſted and burned in a frying-pan mixed with Oil, and anointed upon the head, reſtoreth decayed hairs. The reins of a Hare inveterated and drunk in Wine, expelleth the ſtone, and being ſod, cut and dryed in the Sun, helpeth the pain in the reins, if it be ſwallowed down and not touched with the teeth. The reins of a Hare, and of a Moor-hen, cureth them that are poiſoned by Spiders, the ſtones of a Hare roaſted and drunk in Wine, ſtayeth the incontinency of Urine. In the pain of the loins, and of the hip bones, they have the ſame operation. The ſecrets and ſtones of Hares are given to Men and Women to make them apter to copulation and conception, but this opinion hath no other ground beſide the fœcundity of the beaſt that beareth them. They which carry about with them the ankle bone of a Hare, ſhall never be pained in the belly (as *Pliny* ſaith) So likewiſe *Sextus* and *Marcellus*.

Avicen.

Take the ankle bone out of a live Hare, and hairs from her belly, therewithal make a threed and bind the ſaid bone to him that hath the Colick, and it ſhall eaſe him. The ſaid bone alſo beaten to powder is reckoned among the chief remedies againſt the ſtone. When Women have hard travel, put it into Cretick-wine with the liquor of Penyroyal, and it procureth ſpeedy delivery, being bound to the benummed joynts of a mans leg bringeth great eaſe: ſo alſo do the feet being bruiſed and drunk in warm Wine, relieve the arteries and ſhortneſs of breath: and ſome belive that by the foot of a Hare cut off alive, the Gout is eaſed.

The fime of a Hare cureth ſcorched members, and whereas it was no ſmall honour to Virgins in ancient time, to have their breſts continually ſtand out, every one was preſcribed to drink in Wine or ſuch other things, nine grains of Hares dung: the ſame drunk in Wine in the evening ſtayeth Coughing in the night; in a potion of warm wine it is given to them that have the Bloudy flux, likewiſe if a man be ſick of the Colick, and drink three pieles thereof in ſweet Wine, it procureth him much eaſe: being decocted with hony and eaten every day, the quantity of a Bean in deſperate caſes, mendeth Ruptures in the bowels.

Aſclepiades in his medicine whereby he procured fruitfulneſs to Noble Women, he gave them four drams of Myrrha, two drams of Flower-deluce, two of Hares dung, confected with Collyrial water, & ſo put up into their bellies after ceaſing of the flowers, before they lay with their Husbands. *Albertus* and *Raphael* preſcribe this medicine to help a woman that wanteth milk in her breſts, *Cryſtal*, white Muſtard-ſeed, and Hares dung put into broath made with Fennel.

Of the *HEDGE-HOG.*

Of the kinds of Hedge-hogs.

FOraſmuch as there be two ſorts of Hedge-hogs, one of the Sea, and another of the Land, our purpoſe in this place is only to diſcourſe of the Land Hedge-hog, the *Hebrews* call him *Kipod*, which in the 14. of Iſa. and Zepha. 2. is ſo tranſlated by the *Septuagints*; although that ſome of the *Hebrews* would have it to ſignifie, a ravening bird, but ſeeing that I find the word *Kapaz* in moſt *Hebrew* dictionaries to ſignifie *Claudere* and *Contrahere*, and that is moſt proper to ſhut up and draw together, I do rather believe that the proper meaning thereof is a Hedge-hog, becauſe this beaſt ſo draweth it ſelf together, when it is in danger, as we ſhall hear more at large afterwards, according to the old Verſe;

Implicitumque ſinu ſpinoſi corporis erem.

The *Arabians* call him *Ceuſud*, or *Couſed*; the *Caldeans*, *Caupeda*; the *Septuagints*, *Mugale*. *Silvaticus* calleth it *Agilium*; *Avicen*, *Aduldus*, and *Aliberba* ſignifieth a great Mountain Hedge-hog: the *Grecians*, *Cher*, and *Acanthonocos*, or *Echinos*, by reaſon of the prickes upon his back. The *Latines*, *Echinus*, *Ericius*, *Ricius*, *Herix*, and *Erinaceus*; the *Italians*, *Riccio*, and *Rizo*; the *Spaniards*, *Erizo*; the *Portingals*, *Ouriſo*, or *Orizo*, *Cache*, becauſe of hiding themſelves; the *French*, *Heriſon*; the *Germans*, *Igal*, as in lower *Germany*; in *Holland*, *Een Tjeren Vercken*; in *Engliſh* a *Hedge-hog*, or an *Urchine*; by which name we call a Man that holdeth his neck in his boſome: the *Italians*, *Geſs*, *Malax*: and the *Illyrians*, *Azvuiier*, *Zatho*, and *Otziſchax*. So then for the entrance of our diſcourſe, we take it for granted, that *Herinaceus* and *Echinus* ſignifie one thing, except one of them ſignifie that kinde which is like to a Hog, and the other that kinde which is like to a Dog, for they differ in place, or in habitation: ſome of them keep in the Mountains, and in the Woods or hollow trees, and other about Barnes and Houſes: in the Summer time they keep neer Vineyards and Buſhie places, and gather fruit, laying it up againſt Winter.

Their place of abode.

The quantity.

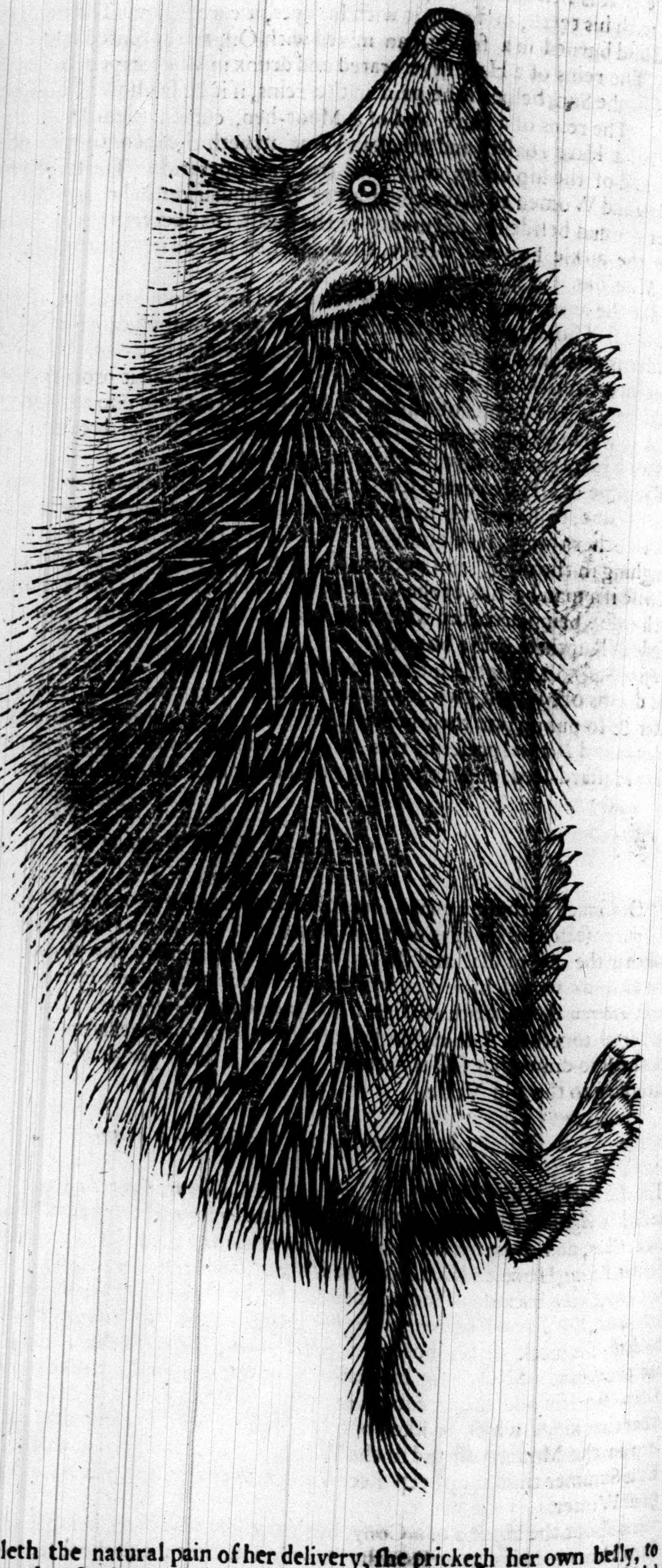
The parts.

Hermolaus.

It is about the bigneſs of a Cony, but more like to a Hog, being beſet and compaſſed all over with ſharp thorny hairs, as well on the face as on the feet: and thoſe ſharp prickles are covered with a kind of ſoft moſſe, but when ſhe is angred or gathereth her food ſhe ſtriketh them up by an admirable inſtinct of nature, as ſharp as pins or needles: theſe are hair at the beginning, but afterwards grow to be prickles, which is the leſſe to be marvelled at, becauſe there be Miſe in **Egypt** (as **Pliny** ſaith) which have hair like Hedge-hogs. It hath none of theſe prickles on the belly, and therefore, when the skin is off, it is in all parts like a Hog.

Albertus.

His ſtones are inward and cleave to his loins like as a birds, he hath two holes under his tail, to eject his excrements, which no creature living hath beſides him. His meat is Apples, Wormes, or Grapes; When he findeth apples or grapes on the earth, he rowleth himſelf upon them, untill he have filled all his prickles, and then carryeth them home to his den, never bearing above one in his mouth. And if it fortune that one of them fall off by the way, he likewiſe ſhaketh off all the reſidue, and walloweth upon them afreſh, untill they be all ſetled upon his back again, ſo forth he goeth, making a noiſe like a cart wheele. And if he have any young ones in his neſt, they pull off his load wherewithal he is loaded, eating thereof what they pleaſe, and laying up the reſidue for the time to come.



When they are nouriſhed at home in houſes and brought up tame, they drink both milk and Wine: But there is an Herb (called *Potomagiton*) whereof if they taſt, they die preſently.

Their copulation.

When they are in carnall copulation they ſtand upright, and are not joyned like other beaſts; for they imbrace one another, ſtanding belly to belly: but the prickly thornes upon their backs will not ſuffer them to have copulation like Dogs or Swine, and for this cauſe they are a very little while in copulation, becauſe they cannot ſtand long together upon their hinder legs. When the female is to bring forth her young ones, and feeleth the natural pain of her delivery, ſhe pricketh her own belly, to delay and put off her miſery, to her further pain, whereupon came the proverb (as *Eraſmus* ſaith) *Echinus partum differt*, the Hedge-hog putteth off the littering of her young; which is alſo applyed againſt them which put off and defer thoſe neceſſary works, which God and nature hath provided them to undergo; as when a poor man deferreth the payment of his debt, untill the value and ſum grow to be far more great then the principal.

The inward diſpoſition of this beaſt, appeareth to be very crafty and full of ſubtlety, by this, becauſe (*Lycophron* ſaith) that *Nauplius* had a cunning crooked wit, and was called by him a Hedge-hog. When they hide themſelves in their den, they have a natural underſtanding of the turning of the winde, South and North, and they that are nouriſhed tame in houſes, immediately before that change remove from one wall to another; the wilde ones have two holes in their cave, the one North, the other South, obſerving to ſtop the mouth againſt the winde, as the skilful mariner to ſteer and turn the rudder or ſails, for which occaſion *Ariſtotle* ſaith, that ſome have held opinion, that they do naturally foreknow the change of weather.

Their inward parts and diſpoſition.

Oppianus.

There is mortal hatred betwixt the Serpent and the Hedge hog, the Serpent ſeeketh out the Hedge-hogs den, and falleth upon her to kill her, the Hedge-hog draweth it ſelf up together round like a foot-ball, ſo that nothing appeareth on her but her thorny prickles; whereat the Serpent biteth in vain, for the more ſhe laboureth to annoy the Hedge-hog, the more ſhe is wounded and harmeth herſelf, yet notwithſtanding the height of her minde, and hate of her heart, doth not ſuffer her to let go her hold, till one or both parties be deſtoyed.

The enemies to Hedge hogs.

The Hedge-hog rowleth upon the Serpent piercing his skin and fleſh, (yea many times tearing the fleſh from the bones) whereby he ſcapeth alive and killeth his adverſary, carrying the fleſh upon his ſpears, like an honorable banner won from his adverſary in the field. The Wolf alſo is afraid of, and flyeth from the Hedge-hog; and there is alſo a ſtory of hatred between the Hare and the Hedge-hog, for it is ſaid, that a Hare was ſeen to pluck off the prickles from the Hedge-hog, and leave her bald, pieled and naked, without any defence. The Fox is alſo an enemy to the poor Hedge-hog, and lyeth in wait to kill it, for the proverb is true, *Multa novit Vulpes, Echinus vero unum magnum*; that is to ſay, the Fox knoweth many deviſes to help himſelf; but the Hedge-hog knows but one great one, for by rowling up her ſelf (as before ſaid) ſhe oppoſeth the thorns of her back, againſt the Foxes teeth: which alone were ſufficient to ſecure her from a greater adverſary; but the wily Fox perceiveth that he can no where faſten his teeth without danger of himſelf, piſſeth upon the Hedge-hogs face and poiſoneth her: whereupon the poor beaſt is forced to lay open himſelf, and to take breath againſt the Foxes ſtinking excrement: which thing the Fox eſpying, loſeth no opportunity, but preſently teareth the Hedge-hog in pieces; thus the poor beaſt avoiding the poiſon, falleth into the mouth of her enemy.

The manner of Hedge-hogs is, that whenſoever they are hunted by Men, they draw up their legs and put down their head to the moſſie part of their belly, ſo as nothing of them can be taken but their prickles: and perceiving that ſhift will not ſerve the turn, but their caſe growing deſperate, they render out of their own bodies, a certain urine hurtful to their skin and back, envying that any good thereby ſhould ever come to mankinde; and therefore ſeeing they naturally know the manifold uſes of their own hides, here is the cunning of her hunting, to cauſe her firſt of all to render her urine, and afterward to take her, for the urine maketh the thornes of her back to fall off every day, and therefore they take this courſe for their laſt refuge. But in theſe caſes the Hunters muſt poure upon the Hedge-hog warm water, for feeling warmth ſhe preſently unfolds her ſelf, and lyeth open; which the Hunter muſt obſerve, and inſtantly take her by one of her hinder legs, ſo hanging her up till ſhe be killed with famine; otherwiſe there cometh no benefit by her taking.

With the ſame skin flead off, bruſhes are made for garments, ſo that they complain ill which affirm, that there is no good or profitable condition coming to mankind by this beaſt. Again this is to be reſerved and uſed for dreſſing of flax (as *Maſſarius* ſaith) and alſo it is ſet upon a Javeline at the dore to drive away Dogs. In ancient time they did not eat the fleſh of Hedge-hogs, but now a dayes men eat thereof, (of them which are of the ſwiniſh kind) When the skin is off their bodies, they ſcald it a little in Wine or Vinegar, afterward lard it and put it upon a ſpit, and there let it be roaſted, and afterwards eaten, but if the head be not cut off at one blow, the fleſh is not good.

Cœlius.

The eating of their fleſh.

The Epithets belonging to this beaſt are not many; it is called red, ſharp, marine, volible, and rough, whereupon *Eraſmus* ſaid,

Ex hirco in lævem nunquam mutabis Echinum.

And thus much for the natural and moral parts of this beaſt. Now followeth the medicinall. Ten ſprigs of Lawrel, ſeven grains of Pepper, and of *Opopanax* as big as a Peaſe, the skin of the ribs of a Hedge-hog, dryed and beaten caſt into three cups of Water and warmed, ſo being drunk of one that hath the Colick, and let reſt, he ſhall be in perfect health; but with this exception, that for a man it muſt be the membrane of a male Hedge-hog, and for a woman a female.

The medicinal parts of Hedge-hogs.

Aetius.

The ſame membrane or the body of all Hedge-hogs burnt to aſhes, hath power in it of cleanſing, digeſting, and detracting, and therefore it is uſed by Phyſitians for taking down of proud ſwelling wounds, and alſo for the cleanſing of Ulcers and Boyles, but ſpecially the powder of the skin hath that virtue; alſo it being roaſted with the head, and afterwards beat unto powder and anointed on the head with hony, cureth the *Alopecias*.

Raſis.

The ſame powder reſtoreth hair upon a wound if it be mingled with Pitch, and if you add thereunto Bears greaſe, it will reſtore unto a bald man his head of hair again, if the place be rubbed untill it be ready to bleed. The ſame powder cureth the Fiſtula, and ſome mingle red Snails with this duſt, applying it in a plaiſter to Ruptures and Swellings in the cods, and being mingled with oil by anointment, it taketh away the burles in the face, and being drunk in wine is a remedy againſt the pains of the reins or the water betwixt the skin and the fleſh.

Marcellus.

Ælianus.

A ſuffumigation made of a Hedge-hogs skin, under them that have their Urine ſtopped, by Gods help (ſaith my Author) the ſtopping ſhall be removed, if it proceed not from the ſtone, nor from an impoſtume. The fleſh ſalted, dryed, and beat to powder, and ſo drunk with ſweet Vinegar, helpeth the pain in the reins, the beginning of Dropſies, Convulſions, and Leproſies, and all thoſe affections which the *Grecians* call *Cachectæ*. The Mountain Hedge-hog is better then the domeſtical, having prickles like Needles points, but legs like to the other: the meat is of better taſte, and doth more help to the ſtomach, ſoftning the belly, and provoking the Urine more effectually, and all this which is attributed to Hedge-hogs is much more powerful in the Porcupine.

Dioſcorides.

The Hedge-hog ſalted and eaten is good againſt the Leproſie, the Cramp, and all ſickneſs in the Nerves and Ptiſick and pain in the belly, riſing of windineſs and difficulty of digeſtion: the powder anointed on Women with childe, alwayes keepeth them from abortment. The fleſh being ſtale given to a mad Man, cureth him; and being eaten keepeth one from the Strangury; alſo being drunk in wine, expelleth the ſtone in the bladder, and is good againſt the Quotidian Feaver, and the bitings of Serpents. The fat of a Hedge-hog ſtayeth the flux of the bowels: If the fat with warm water and hony be gargarized, it amendeth a broken and hoarſe voice; the left eye being fryed with Oil, yeeldeth a liquor which cauſeth ſleep, if it be infuſed into the ears with a quill. The gall with the brain of a Bat and the milk of a Dog, cureth the reins; likewiſe, the ſaid gall doth not ſuffer uncomely hairs to grow again upon the eye-browes, where once they have been pulled up. It maketh alſo a good eye ſalve.

Marcellus.

Avicen.

Albertus.

Warts of all ſorts are likewiſe taken away by the ſame; the milt ſod and eaten with meat, it healeth all pains in the milt, and the reins dryed are good againſt a Leproſie or Ptiſick coming by Ulcer, or the difficulty of Urine, the Bloudy flux and the Cough. The dung of a Hedge-hog freſh, and *Sandaracha* with Vinegar and liquid pitch, being layed to the head, ſtayeth the falling away of the hair.

Pliny.

When a man is bitten with a mad Dog, or pricked with prickles of a Hedge-hog, his own Urine laid thereunto with a ſpunge or wool, is the beſt cure: or if the thornes ſtick in the wound of his foot, let him hold it in the warm Urine of a Man, and it ſhall eaſily ſhake them forth: and *Albertus* and *Raſis* affirm, that if the right eye of a Hedge-hog be fryed with the oil of *Alderne* or Linſeed, and put in a veſſel of red braſſe, and afterward anoint his eyes therewith, as with an eye-ſalve, he ſhall ſee as well in the dark as in the light. And thus I will conclude this diſcourſe with one ſtory, that a Hedge-hog of the earth was dedicated to the good God among the fooliſh *Pagans*, and the water Hedge-hog to the evill, and that once in the City of *Phrygia* called *Azanium*, when a great famine troubled the inhabitants, and no ſacrifice could remove it; one *Euphorbus* ſacrificed a Hedge-hog, whereupon the famine removed, and he was made Prieſt, and the City was called *Traganos* upon the occaſion of that ſacrifice.

Of the *HORSE*.

WHen I conſider the wonderful work of God in the creation of this Beaſt, enduing it with a ſingular body and a noble ſpirit, the principal whereof is a loving and dutiful inclination to the ſervice of Man; wherein he never faileth in Peace nor War, being every way more neer unto him for labour and travel: and therefore more dear (the food of man only excepted) we muſt needs account it the moſt noble and neceſſary creature of all four-footed Beaſts, before whom no one for multitude and generality of good qualities is to be preferred, compared or equalled, whoſe commendations ſhall appear in the whole diſcourſe following.

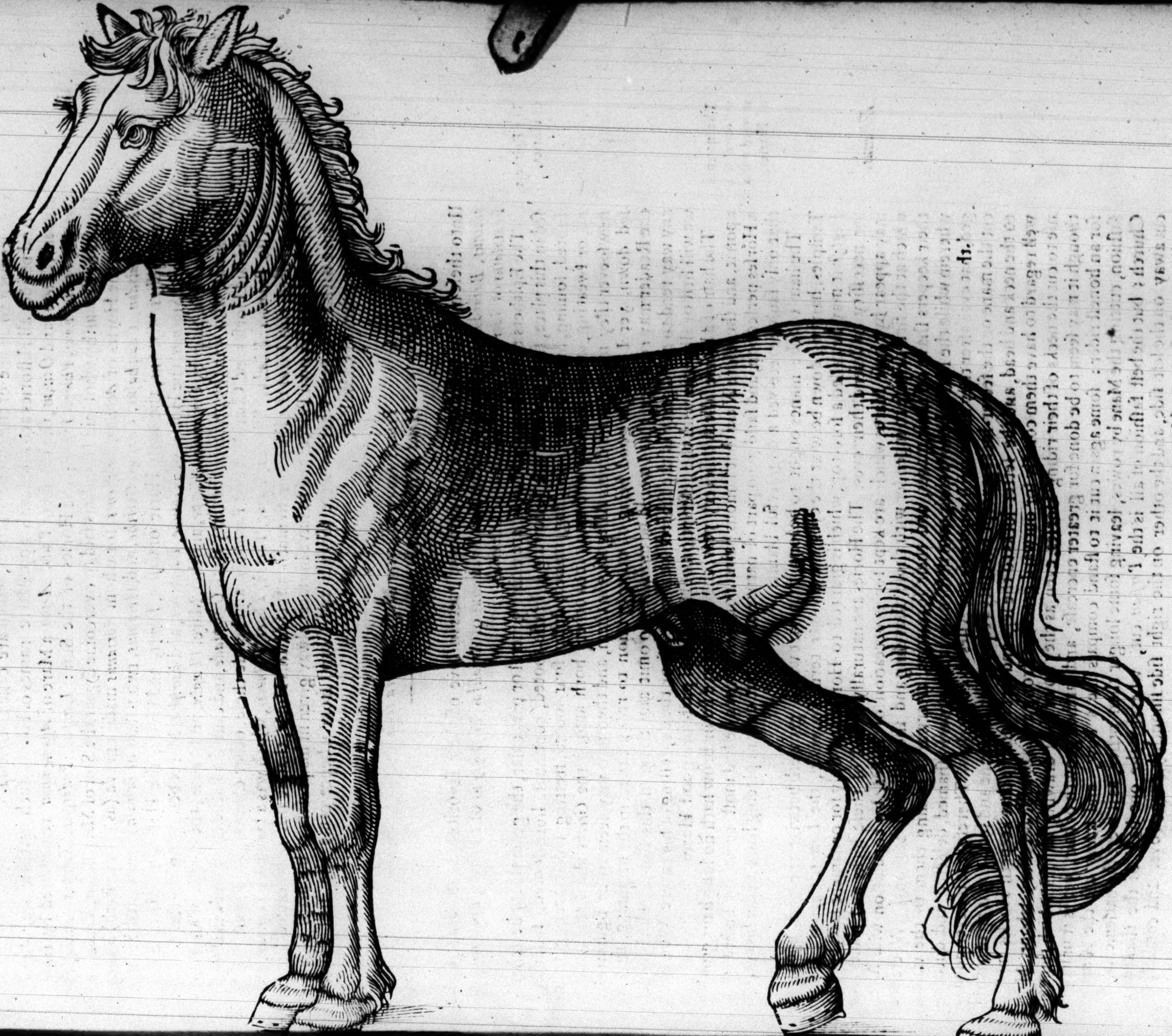
The ſeveral names of Horſes.

It is called in *Hebrew*, *Sus*, and a Mare *Suſah*, the which word ſome derive from *Sis*, ſignifying Joy; the *Syrians* call it *Rekeſh* and *Souſias*; the *Arabians*, *Ranica*; and the *Caldeans*, *Ramakim*, *Suſuatha*; the *Arabians*, *Bagel*; the *Perſians*, *Asbaca*; the *Grecians*, *Hippos*, and at this day *Alogo*; the *Latins*, *Equus*, and *Caballus*; the *Italians* and *Spaniards*, *Cavallo*; the *French*, *Chevall*; the *Germans*, *Koſſz*; the *Bohemians*, *Kun*; the *Illyrians*, *Kobyla*; the *Polonians*, *Konii*.

The derivation of ſundry names.

It is alſo profitable to conſider the reaſon of ſome of theſe names, both in the *Latin* and *Greek* tongue; and firſt of all *Equus* ſeemeth to be derived, *Ab æqualitate*, from equality; becauſe they were firſt uſed in Charets and draughts, and were joyned together being of equal ſtrength, legs and ſtature; *Caballus* ſeemeth to be derived from the *Greek* word *Caballes*, which was a common name for ordinary Hackney-horſes, and Horſes of carriage, whereupon *Seneca* commendeth *Marcus Cato*, that in his triumph of Cenſorſhip, *Uno Caballo contentum et ne toto quidem, partem enim ſarcinæ ab utroque latere dependentes occupabant*; that is to ſay, that he was contented with one Horſe for his own ſaddle, and yet not totally one neither, for the packes that hang on either ſide of him, poſſeſſed the

greateſt



greateſt part, and the true derivation of this word, ſeemeth to accord with *Caxe*, which ſignifyeth a manger, and *Alu* aboundance, becauſe riding Horſes are more plentifully fed, and theſe Horſes were alſo uſed for plowing, according to the ſaying of *Horace* ;

Optat ephippia bos piger, optat arare Caballus.

The *Grecians* call it *Hippos*, which ſeemes to be derived from ſtanding upon his feet, and this beaſt only ſeemeth to be one of the number of them, which are called *Armenta*.

Claudian.

And beſides all Hiſtories are filled with appellative names of Horſes, ſuch as theſe are, *Alaſtor*, *Aethon*, *Nicteus*, and *Orneus*, the Horſes of *Pluto*. *Aetha* a Mare of *Agamemnon* remembred by *Homer*. *Aethion*, *Statio*, *Eous*, *Phlego*, *Pyrois* ; the Horſes of the Sun : *Lampus*, *Podargus*, *Xampus*, *Arnon*, the Horſes of *Erymus*: by whoſe aid *Hercules* is ſaid to overcome *Cygnus*, the Son of *Mars*: *Balius*, *Xanthus*, and *Padaſus*, the Horſes of *Achilles*. *Boriſtenes*, for whom *Adrianus* made a grave (as *Dion* writeth) *Bromius*, *Cerus*, *Calydon*, *Camphaſus*, *Cnaſius*, *Corithe*, and *Herpinus*, two names of *Britain* Horſes cited by *Martial* and *Gillius*. *Cylarus*, the ſwift Horſe of *Caſtor*, *Dimos*, and *Phobos*, the Horſes of *Mars*. *Euriole*, *Glaucus*, and *Sthenon*, the Horſes of *Neptune*, *Parthenia*, and *Euripha*, Mares belonging to the *Centaurs* of *Hippodamia*, ſlain by *Ornomaus*. *Harpe*, another Mare. *Phœnix*, and *Corax* , the Horſes of *Eleoſthenes*. *Epidaminus*, who wan the prizes in the ſixty ſixth *Olympiade*, and cauſed a ſtatue to be made in *Olympus*, and his ſaid Horſes and Chariot called *Pantarces*, and beſide theſe, other *Cnacias* and *Samus*.

Alſo *Podarces*, *Rhœbus*, *Strymon*, *Tagus*, *Theron*, *Thoes*, *Volneris*, which was a Horſe of *Praſinum*, and it is repoted, that *Verus* the Emperor ſo much affected this Horſe, that he not only cauſed him to be brought into his own Palace, and to have his meat alway given in his preſence, but made of him a picture with a manger, wherein were Grapes and Corn, from whence came the firſt Golden Horſes or prizes of Chivalry ;

Primus equum volucrem Maſſyli munera regis
Haud ſpernenda tulit : ———

Unto theſe may be added the affected names of Poets in love of their favorites, as *Rholandus*, *Vegiantinus*, *Baiardus*, the Horſe of *Rainaldus*, *Rubicanus* of *Argaliſas*, *Hippogryſus* of *Rugerius*, *Frontinus* and *Fratalatus* of *Sacrapan*, and *Rondellius* of *Oliverius*.

The Epithets of Horſes.

The Epithets that belong to Horſes, are either general or particular, the general may be rehearſed in this place, ſuch as theſe are following ; braſſe-footed, continual, horn-footed, ſounding-footed, foming, bridle-bearer, neighing, maned, duſty, four-footed, fretting, ſaddle-bearing, watery, or ſweating, whole-footed ; and many ſuch others both among the *Greeks* and *Latins* , which howſoever they may contain divers Allegories in them, and therefore may ſeem to be figuratively ſed down, yet I thought good being of other opinion to reckon them in the beginning, that ſo the Reader may conſider, that I would be unwilling to omit any thing in this ſtory, which might any way tend to the dignity of the ſubject we intreat of, or the expreſſing of his nature. Wherefore we will firſt of all begin with the deſcription of the natural parts of a good Horſe.

The natural outward and inward parts of Horſes.

The hair of a Horſe falleth off every year, the neather eye lid or brow hath no long hairs growing upon it, and therefore *Nicon* that famous painter of *Greece*, when he had moſt curiouſly limbed forth a Horſes perfection, and faild in no part of nature or art, but only in placing hairs under his eye, for that only fault he received a diſgraceful blame.

Ælianus.

The hair of the manes ought to be long, that part which groweth betwixt the ears, upon the Temples, hanging down betwixt the eyes, the *Grecians* term *Procomion*, the *Latins*, *Caprona* , and in *Engliſh* it may be called a fore-top, which is granted to Horſes not only for ornament ſake, but alſo for neceſſity to defend their eyes. The Horſes are naturally proud of theſe locks and manes, as may appear by thoſe Mares which are kept for procreation of Mules, by copulation with Aſſes, which at the firſt deſpiſe to ingender with thoſe ſhaveling and ſhort haired Stalions. Wherefore their keepers ſhave off their manes, and their fore-tops, afterwards leading them to the waters, wherein while the Mares behold their own deformity, they grow ſo ſhamed, dejected, and diſcouraged, that ever after they admit with quietneſs the Aſſes to cover them. Therefore it is never good to cut the mane or the fetter-locks, except neceſſity require, for the mane and fore-top is an ornament to the neck and head, and the fetter-locks to the legs and feet : and he that keepeth Horſes muſt as well regard to have them comely for outward grace, as ſtrong and able for neceſſary labour. Many uſe to cut the necks of their riding Horſes, even as they do of their drawing Horſes, which thing although it may ſeem to be done for greater encreaſe, and farther growth of hair, yet is it unſeemly for an honeſt rider : ſome again cut it to ſtand compaſs like a bow, and many uſe the *Armenian* faſhion, cutting the Mane by rowes, leaving ſome longer then other, as it were the batlements of a Church ; but the beſt faſhion of all is the *Perſian* cut, whereby the one half of the thickneſs is cut away on the left ſide, and the other on the right ſide ſmoothly turned over and combed, according to the ſaying of *Virgil* :

Denſa juba & dextro jactata recumbit in armo.

But if the Horſe be double maned, and ſo the hair fall half on the one ſide, and half on the other, then cut all the middle hairs away, and leave both the ſides whole: for ſuch was the intention of the *Parthians*. In a Colt or young fole, the hinder part is higher then the forepart, but as he grows in years, ſo likewiſe the forepart groweth higher then the hinder.

This beaſt hath two bones in his head, and other two deſcending from his forehead to the Noſtrils, two inferiour Gumbes, or cheek-bones, forty teeth, that is to ſay, four and twenty grinders, four canine, and twelve biting teeth; there are ſeven croſſe ribs in his neck, and ſeven from his reins to his hole, his tail hath twelve commiſſures, and two *Ragulæ* in his fore-ſhoulders, from his ſhoulders to his legs other two, from his legs to his knees two more, in his knees there are two ſupporters, and from the ſhin to the Articles two more, there are ſixteen ſmall bones in the bottom of his hoof, and but one in his breſt, in the inward parts there are ſix and twenty ribs, from the hinder parts to the top of his reins, the two grinding bones; and from them to the hinder part of the head there are two more, and two little ribs from the upper part of the thigh to the *Gamba*, and from thence to the hairs of the paſterns, there are two, and the little ones to the hooves ſixteen; ſo all the bones in number are accounted a hundred and ſeventy.

Vigetius.

Now it followeth to declare the meaſure and number of the members; there are twelve ſteps or degrees in the roof of his mouth, his tongue is half a foot long, the upper lip hath twelve inches, the under lip five, every one of the cheeks ten: from the fore-lock to the Noſtrils he hath one foot in length, his two ears contain ſix inches, and his eyes four inches a piece. From his fore-lock to the *Mercurius*, there are contained eight inches, the back-bone containeth three and thirty croſſe ribs. From the convulſion of the reins to the top of the tail, are twelve commiſſures, the length of his *Sagula* containeth alſo twelve inches, from his ſhoulders to his legs ſix, from his legs to his knees a foot in length, from the Articles to the hoofs four inches, in his whole length ſix feet. And this is the ſtature of a couragious and middle Horſe, for I know there are both bigger and leſſer.

The quality and the meaſure of the nerves or ſinews is this, from the middle noſtrils through the head, neck and back-bone, is a dubble file or threed to the top of the tail, which containeth twelve foot in length. The two broad ſinews in the neck do contain four-foot, from the ſhoulders to the knees, there are two ſinews, from the knee to the bottom of the foot there are four ſinews, in the fore-legs there are ten ſinews, in the hinder-legs there are other ten ſinews, from the reins to the ſtones there are four ſinews, ſo the whole number amounteth to thirty four. Conſequently the number of the veins is to be declared. In the palat or roof of the mouth, their are two veins, under the eyes other two, in the breſt other two, and in the legs other two, four under the paſternes, two in the ancles, four in the crown of the paſternes, four out of the thighes, two out of the loins, two out of the Gambaes, one out of the rail, and two in the womb or Matrix, ſo the whole number is nine and twenty.

There are certain veins above the eyes which are divided in Horſes, wherein they are let bloud, by making to them ſmall inciſions, the bloud alſo is taken out of the veins, in the palat or roof of the mouth. There was an ancient cuſtome of letting Horſes bloud upon Saint *Stevens* day, by reaſon of many holy dayes one ſucceeding another, but that cuſtom is now grown out of uſe. Alſo ſome take bloud out of the Matrix veins, but that is not to be admitted in Geldings, becauſe with their ſtones they loſe a great part of their heat, excepting extream neceſſity, but out of the palat bloud may be let every moneth, and ſtallions when they are kept from Mares if the vein of their mouths be opened, fall into blindneſs, although it is no good part of husbandry to let them bleed that year, wherein they admit copulation, for the vacuation of bloud and ſeed, is a double charge to nature.

But the Organical vein of the neck, is the beſt letting of bloud, both in ſtoned and gelded Horſes. The later Leaches make inciſion in the great vein called *Fontanella*, and in *Inen Thymus* or *Jugulis*. The eyes of a Horſes are great or glaſſie, and it is reported by *Auguſtus*, that his eyes were much more brighter then other mens, reſembling Horſes: theſe eyes ſee perfectly in the night, yet their colour varieth as it doth in Men, according to the caprine and glazie humour. And ſometimes it falleth out, that one, and the ſame Horſe hath two eyes of diſtinct colours. When the eyes of a Horſe hang outward, he is called *Exophthalmos*. Such fair eyes are beſt, for *Bucephalus* the Horſe of *Alexander* had ſuch eyes, but when the eyes hang inward, they are called *Coeloph-Thalmoi*, and the *Parthians* count them the beſt Horſes, whoſe eyes are of divers colours, and are therefore called *Heteroph Thalmoi*, becauſe the breed of that Horſe was ſaid to take the beginning from the *Parthians*, and the reaſon why the people loved not theſe Horſes, was, becauſe they were fearful, and apt to run away in wars.

Cælius.

The ears of a Horſe, are tokens and notes of his ſtomach, as a tail is to a Lion, his teeth are changed, yet they grow cloſe together like a mans. It is a hard thing for a Horſe to have a good mouth, except his ſtallion teeth be pulled out, for when he is chafed or heated, he cannot be held back by his rider, but diſdaineth the bridle: wherefore after they be three year and a half old, thoſe teeth ought to be pulled forth. In old age, a Horſes teeth grow whiter, but in other creatures blacker.

Ariſtotle.

A Mare hath two udders betwixt her thighes, yet bringeth forth but one at a time: many of the Mares have no paps at all, but only they which are like their Dams. In the heart of a Horſe there is a little bone, like as in an Oxe, and a Mule; he hath no gall like Mules and Aſſes, and other whole-footed-beaſts, howſoever (ſome ſay) it lyeth in his belly; and others, that it cleaveth to his liver, or to the gut-colon. The ſmall guts of a Horſe lie near that gut, that ſo one ſide of his belly may be free and full of paſſage; and from hence it cometh, that the beſt Horſes, when they run or travel hard, have a noiſe or rumbling in their belly. The Hip-bone of a Horſe is called by ſome the haunch, as the *Arabians* ſay; the tail (becauſe therewith he driveth away flies) is called *Muſcarum*, it ought to be long, and full of hairs. The legs are called *Gambæ* of *Campo*, ſignifying treading: the hoofs of a Horſe ought neither to be high nor very low, neither ought the Horſe to reſt upon his anckles, and thoſe Horſes which have ſtraight bones in the Articles of their hinder knees, ſet hard on the ground, and weary the Rider: but where the bones are ſhort in the ſame places, as they are in Dogs, there the Horſe alſo breaketh, and woundeth one leg with another; and therefore ſuch Horſes are called *Cynopodæ*. They have alſo quick fleſh in their hoofs, and their hoofs are ſometimes called horns, upon which for their better travel, men have deviſed to faſten iron plates or ſhooes. This hoof ought to be hard and hollow, that the Beaſt may not be offended, when he goeth upon ſtones; they ought not to be white, nor broad, but almoſt kept moiſt, that ſo they may travel the better, having ſtrong feet, hard and ſound hoofs, for which cauſe the *Græcians* call them *Eupodes*.

The Horſes of divers Nations.

Oppianus.

Foraſmuch as it is requiſite for every man to provide him Horſes of the beſt race, and their kindes are divers in moſt places of the world, ſo the courſers of Horſes do many times beguile the ſimpler ſort of buyers, by lying and deceitful affirmation of the wrong Countreys of the beſt Horſes, which thing bringeth a confuſion: for there are as many kindes of Horſes as Nations. I will therefore declare ſeverally the Countreys breeding the Horſes, for the Region and air maketh in them much alteration, that ſo the Reader may in a ſhort view ſee a muſter of Horſes made of all Nations. The Wilderneſs of *Acarnania*, and *Etolia* is as fit for feeding Horſes as *Theſſaly*. The Horſes of the *Greeks*, *Armenians*, and *Trojans* are fit for war, of the *Greekiſh* I will ſpeak more afterward.

Apollonius. Horſes with horns and wings.

Alexandria was wont to take great delight in Horſes, and combates of Horſes: *Apollonius* writeth *Lib.* 5. *Æthiopia* (as it is reported) breedeth Horſes having wings and horns. *Varro* commendeth the *Apulian* Horſes, and *Volatteranus* writeth, that they and the Horſes of *Roſea* are moſt fit for war: he meaneth above all the Horſes of *Italy*. There have been very fruitful paſtures in *Arcadia* for cattel, eſpecially for breeding Horſes and Aſſes that are Stallions, for the procreation of Mules, and the breed of the *Arcadian* Horſes excelleth. The ſame man preferreth the Horſes of *Theſſalia* and the *Greekiſh* Horſes, for they are ſound of their feet and head, but not of comely Buttocks, they have their back bone whole, great and ſhort.

Ruellius.
Abſyrtus.

Vegetius.

The latter two I might have referred to the whole body of the Horſe. The Horſes of *Armenia* are very neceſſary and convenient for war, for they and the *Capadocians* do breed of the *Parthian* Horſes, ſaving their heads are ſomewhat bigger. Of the *Hackney* or common Horſes, I will ſay more afterward, where I touch the difference of Horſes, and of their pace. The *Barbarian* Horſes are the ſame as the *Lybian* Horſes. *Vegetius* commendeth the Horſes of *Toringa* and *Burgundia*, after them of *Vonuſci*. *Britain* breedeth little Horſes and Amblers. Of Horſes that are celebrate of the *Calpian* Mountain: See in the *Spaniſh*. The Horſes of *Cappadocia* and *Armenia* have the breed of the *Parthians*; but their heads are bigger, and are of a moſt famous Nobility, for that Countrey before any other land, is moſt commodious for the nouriſhing of Horſes, according to the verſes of *Nemeſian*:

Cappadocumque notas referat generoſa propago
Armata, & palmas nuper grex omnis avorum.

Strabo.

Suetonius.

The *Cappadocians* do pay to the *Perſians* every year, beſide ſilver, a thouſand and five hundred Horſes, &c. The *Medes* have the double of theſe, and they ſur-name the *Cappadocians* Horſes famous and ſwift; for he ſaith, that whiles theſe are young, they are accounted weak by reaſon of their young teeth, and their body feeding on milk; but the older they grow, ſo much the ſwifter they are, being very couragious, and apt for war and hunting, for they are not afraid of weapons, neither to encounter with wilde Beaſts. *Mazaca* is a City of *Cappadocia*, ſituate under the Mountain *Argeus*, now called *Cæſarea*, as *Euſebius* remembreth in his Chronicles, and from that City cometh the *Mazacenian* Horſe, for the *Cappadocian* Horſe. And not only the Countrey, but the City it ſelf ſometime was called *Cappadocia* from this City or walled Town, I ſuppoſe the Horſes of *Mazaca* were ſo called, which *Oppianus* calleth *Mazaci*, of theſe alſo and more, I will ſet down theſe verſes of *Nemeſian*:

Sit tibi præterea ſonipes, Mauruſia tellus
Quem mittit, modo ſit gentili ſanguine firmus,
Quemque coloratus Mizax deſerta per arva
Pavit, & aſſiduos docuit tolerare labores.
Ne pigeat quod turpe caput, deformis & alvus
Eſt illis, quodque infrenes, quod liber uterque,
Quodque jubis pronos cervix diverberet armos.
Nam flecti facilis, laſcivaque colla ſecutus
Paret in obſequium lentæ moderamine virgæ.
Verbera ſunt præcepta fugæ, ſunt verbera fræni.
Quin & promiſſi ſpatioſa per æquora campi,
Curſibus acquirunt commoto ſanguine vires,
Paulatimque avidos comites poſt terga relinquunt.
Haud ſecus effuſis Nerei per cærula ventis,
Cum ſe Threicius Boreas ſuper extulit antro, &c.
Horum tarda venit longi fiducia curſus:
His etiam emerito vigor eſt juvenilis in ævo.
Nam quæcunque ſuis virtus bene floruit annis,
Non prius eſt animo quam corpore paſſa ruina.

And peradventure *Nemſianus* underſtood certain Horſes of *Lybia*, by the name of the *Mazacian* Horſes, when as he joyns them with the *Maurafian* Horſes, and calls them painted *Mauzacian* Horſes, which agreeth not with *Cappadocian*; writing alſo, that they are ruled with a ſtroke of air in ſtead of a bridle, which thing we have read in Authors writing of the *Maſſilian* Horſes, in the Countrey of *Lybia*, and whereof we will ſpeak when we diſcourſe of the *Lybian* Horſes. But the *Cappadocian* Horſes are ſwift and luſty in their old age, as it is related by *Oppianus*. Again, if *Mazacian* Horſes be the ſame that the *Cappadocian* are; what is the reaſon why *Oppianus* doth name them apt, unleſs peradventure every *Mazacian* Horſe is a *Cappadocian*, and not otherwiſe? The Horſes of *Chalambria*, are ſo named of a place in *Lybia*; the *Chaonian* Horſes are the ſame with the *Apritolan* Horſes. The *Colophonians* and *Magnetians* do beſtow great labour in breeding of Horſes; for the *Colophonians* dwell in a plain, as I have read in a certain *Greek* Author. *Strabo lib.* 14. writeth, that the *Colophonians* in times paſt did abound with Sea-forces, and have much excelled in Horſe-men; that whereſoever in any Nation there was waged war, they hired and required the aid of the *Colophonian* Horſe-men, and ſo it was made a common Proverb: *Colophonem addidit. Eraſmus.* The Horſes of *Crete* are commended by *Oppianus*, and elſewhere. From their loins upward they are as big as the *Cyrenian* Horſes, with well ſet thighes, excellent for the ſoundneſs of their feet, and holding their breath a long time in riding, and therefore fit for ſingle races or in Chariots.

Varrius.

The *Epean* Horſes are remembred of *Oppianus*, and the *Epeans* are a people of *Achaia*, and the *Achaian* Horſes are commended of the ſame. The *Lipidanean* kinde of Horſes is more excellent, and he preferreth the *Theſſalian* Horſes before thoſe of *Epidauria*, but the *Epieotian* Horſes are biting and ſtubborn: *Abſyrtus* ſaith, that the *Epieotian* Horſes, and the *Samerican* and *Dalmatian*, although they are ſtubborn and will not abide the bridle, and beſides are baſe and contemptible, yet they are bold in war and combates, and therefore the *Epieotian* Horſes and the *Sicilian* deſpiſe not, if their qualities and comely parts be apparent in them, although ſometime he hath run away from the enemy, as the Poet ſaith:

Strabo.

Quamvis ſæpe fuga verſos ille egerit hoſtes,
Et patria Epirum referat.——

Epiria and *Chaonia*, is alſo a part of *Epirus Alpeſtrian*, although ſometimes it be taken for the whole Countrey of *Epirus*. The Horſes of *Chaonia* are commended, as *Gratius* remembreth, writing of the *Sicilian* Horſes, in theſe verſes to this effect, that no man hath preſumed to ſtrive with the *Chaonians*, and the *Achaian* hand doth not expreſs their deſerts:

——*Queis Chaonias contendere contra*
Auſit, vix merita quas ſignat Achaia palma.

There are people of *Arabia* called Erembi, which ſome call *Ichthyophagans*, and *Troglodytans*. *Vegetius* in the third place commendeth the *Fryſian* Horſes for ſwiftneſs, and long continuance of courſe, after the *Hunnian*, *Burgundians*. The *French* Horſe is the ſame that the *Menapians*, and S. *Hierom* writeth, that worldly men are delighted with the *French* Geldings; but *Zachartes* Aſs looſed from his bands, rejoyceth good men. *Lucius Apuleius* hath commended the *French* Beaſts, for if the young fole be derived of a generous kinde, it is an argument it will prove a Noble Beaſt.

Oppianus.

The *Gelanoian* Horſes are a kinde of baſe Horſes, not fit for war; whether this name proceed of a ſtrange Couutrey, I have no certain knowledge thereof. There is a certain River in *Sicilia* called *Gelas*, ot which Countrey the Horſes are of great value and much ſet by. And alſo the *Gelons* are a people of *Scythia*, who in their flight fight upon Horſes, of which *Lucenus* writeth to this effect;

Maſſagetes quo fugit equo, forteſque Geloni: And *Virgil*,
Biſaltæ quo more ſolent, acerque Gelonus,
Cum fugit in Rhodopen, aut in deſerta Getarum,
Et lac concretum cum ſanguine potat equino.

Signifying thus much, that the *Maſſagetes* & valiant *Gelons* fly away upon Horſes like the *Biſaltans*, when they fly into *Rhodope*, or into the Wilderneſs of the *Gelans*, and drink milk mixed with Horſe-bloud for hunger and famine: But theſe fearful Horſes are not meet for war. *Germania* hath greater Horſes and hard trotters, whoſe pace is very hard and troubleſome. The *Getican* Horſes run moſt ſwiftly. The Horſes of the *Greeks* have good ſound broad feet, and of a great body; a comely fine head, their fore-part ſomewhat high of ſtature, ſtraight and well compacted, and of a well faſhioned body, but the joyning of their buttocks not ſo agreeable and anſwerable to the reſt: they are moſt ſwift and couragious, yet notwithſtanding in all *Greece* the *Theſſalian* Horſes are moſt eſteemed; *Nemeſianus* writeth alſo of the *Greekiſh* Horſes: *Greece* therefore yeeldeth choice Horſes, and well hoofed. In *Helvetia* the Horſes are fitted, and very expert in war, and eſpecially the *Algecian* Horſes, which will laſt and continue a long time.

Ælianus.

Abſyrtus.

In *Spain* alſo the Horſes are of a great ſtature of body, well proportioned and ſtraight, having a fine head; the joynts of their bodies very well divided, ſet apart, and ready or flexible, ſimple and ſhort buttocks, but not very ſtrong and comely. They are ſtrong and able to ſuſtain the undergoing

or

Ruelius.

or compaſſing of journeys; neither are they ſlender bodyed or ſubject to leanneſs; but they are nothing nimble for courſe, as ſhall appear by the words of the Authors following, neither are they ſpurred when they are ridden: from their growing even to their middle age, they are pliant, and eaſie to be handled, afterward they wax wilde and biting. The *Cappadocian* Horſe is renowned, the like, or the next triumph or victory have the *Spaniſh* Horſes in running the ring. Neither doth *Sivilia* yeeld Horſes inferior for the ring then thoſe: and *Africa* is accuſtomed to bring forth the moſt ſwift Horſes by copulation with the *Spaniſh* bloud to the uſe of the ſaddle.

Oppianus ſaith that their *Iberian* Horſes are more excellent, and do ſo much ſurpaſs other Horſes in ſwiftneſs, how much the Eagle or the winding Hawk in the air, and the Dolphin in the Sea, excelleth other birds and fiſhes; but they are ſmall, and of little ſtrength, and no courage: although *Abſyrtus* affirmeth (if you read him well) that they are of a great ſtature of body, they being rid but a little way do loſe their ſwiftneſs of pace: they are of a comely body; but their hoofs are not hollow or hard.

Camerarius.

The *Spaniſh* Horſes are deſired of great Princes and Peers, and the *Magnates*, becauſe their opinion is, that they are ſwift and nimble; and out of *Spain* they are reſpected for lightneſs and elegancy. The judgement of the Ancients for the general breed of Horſes, was this; that the greateſt Horſes are bred from the third Climate, to the end of the ſixt; and moſt of all in *Spain*: yet we have ſeen ſtronger and bigger Horſes bred in the ſeventh Climate, and thoſe more able to endure labour then thoſe that are under the third or fourth climate.

Albertus.

The Horſes of the *Celtiberans* ſomewhat a duſty colour: and they change if they be tranſported into the farther *Spain*; and the *arthian* Horſes are like them in regard they excel in nimbleneſs and dexterity of running, whereof *Martial* writeth thus, *Videbis altam Liciane Bilbilim, equis & armis nobilem*: which *Bilbilis* is a City of *Celtiberia*. Of the *Callacians* and *Gennets*, we will ſpeak alſo in the *Spaniſh* Horſes that are bred in the *Calpian* Mountain, afterward, when we entreat of the differences of Horſes according to their degree.

Strabo.

The *Huns* bring up their Horſes hardly, able to endure cold and hunger, and they have great and crooked heads, ſtaring eyes, ſtrait noſtrils, broad chaps, and ſtrong and rough necks, and long manes down to their legs; great ribs, ſtraight backs, buſhy tails, ſtrong ſhanks or legs, ſmall feet, full and wide hoofs, their flanks hollow, and their whole body full of holes. There is no fatneſs in their hanch or buttocks, they have no ſtrings in their ſinews or arteries, and they exceed in length more then in height, having great bellies hanging down, big-boned, and leanneſs (which is a deformity in other Horſes) in theſe it ſheweth their ſtatelineſs: their courage is moderate and wary, and theſe are able to endure wounds. Theſe *Hunnian* Horſes elſewhere he calleth them *Hunnican* Horſes, and the ſame in times paſt *Huns*: but they are called now a days *Ungarian* Horſes.

The Companies or Armies of *Huns*, wandering up and down with moſt ſwift Horſes, filled all things with ſlaughter and terrour. They are biting and kicking Horſes, as moſt *Pannonicks* are, (for they call *Pannonia* at this day *Hungaria*) of which there is a Proverb of Malignity ſprung up, *Non niſi irritati opinione aut offenſæ metu ferociunt*: that is to ſay; They wax not ſtern, or rage not, but either by opinion, or fear of offence, affirming that the *Pannonians* are very fit for War. There is not any that can hold and conſtrain or draw the bridles in, or looſe them forth, that rideth an *Indian* Horſe when he pranſeth and runneth violently, but ſuch a one that hath been trained up from his childehood in the skill of Horſes: theſe men have accuſtomed to hold them with the bridle, and alſo to break their wilfulneſs by ſnaffles or bits, and thoſe that are well skilled in handling Horſes, do compell them from their unrulineſs, as reſtrain them within a ſmall circuit. Yet notwithſtanding to make this circle and finiſh it, it requireth the help of hands, and it is a great skil belonging to Horſemen.

Vegetius.

They which are moſt skilful of this Art, and cunning doers of it, know very well how to bring their courſe into a circle, whoſe compaſs is not to be regarded chiefly when it can bear but two Souldiers fighting together at one time. There are among the *Indian Pſyllans* (for there are alſo other *Africks* of that name) Horſes bred no bigger then Rams, and they ſay that in *India* there are Horſes with one horn, of which horn drinking cups may be made, having this vertue in them; that if you put poyſon into them, and a man drink thereof, it ſhall not hurt him, becauſe the horn doth drive away or expell the evill or poyſon. Whereof you ſhall ſee more at large in the Hiſtory of *Monocerotes*: and *Ælianus* himſelf elſewhere, and *Philes* following him, write the the ſame thing of a cup made of the horn of an *Indian* Aſs, having one horn.

Ælianus.

Oppianus.

The *Iſtrian* Horſes are of good able feet, very ſtraight, whole backt, and hollow; but ſwift of courſe. The *Moores* Horſes (ſaith *Oppianus*) are moſt excellent, as well to hold out long courſes, as alſo to endure hard labours: the *Lybians* next unto theſe are of a moſt durable celerity: they are ſhaped alike, except that the *Lybian* Horſes are big, and of a longer body, having thicker ribs and ſides, and their breſt is larger before on their creſt; they can eaſily abide the heat of the Sun and daily thirſt.

Africa hath been accuſtomed to put the moſt ſwifteſt Horſes of the *Spaniſh* brood to the uſe of the ſaddle: (and *Livius* ſaith) in *lib* 23. that it was a cuſtom to the *Numidians*, being in battel, to lead two Horſes together, and in manner of vauters oftentimes, in the moſt ſharp conflict could leap from the weary Horſe to a freſh, (ſo great was the dexterity of the rider, and the docibility of the beaſt.) From *Tunis* of *Africa*, *Maſſilia*, and *Numidia*, there are alſo brought very ſingular Horſes, paſſing for running, which the common people call *Barbary* Horſes. The *Maſſylians* (a people of *Lybia*) have very good Horſes, which they govern with a rod whithout a bridle, from whence *Virgil* in his fourth of his *Æneidos*, calleth them untamed and wilde *Numides*: and *Silius* ſaith alſo; the *Numides* a Nation having no skill of the bridle; do leap up and down, here, and there, and every where:

> *Hic paſſim exultant Numidæ gens inſcia freni,*
> *Quis inter geminas per ludum nobilis aures*
> *Quadrupedem flectit non cedens virga lupatis.*

Alſo the rod rules the *Maſſylian* Horſe: the ſame *Nemeſianus* writeth of thoſe which he calleth *Mazacians*, (as I have before ſpoken of the *Cappadocian* Horſes) The *Dorcadian* Horſes although they are of a marvellous ſwiftneſs, yet they are inferiour to the *Lybian* Horſes in running. The *Lybian* Mares are taken with a pipe, and by theſe allurements they are made tame and leave off all wilde qualities, and whitherſoever the pipe ſhall allure them, thither they follow, and the Shepheard when he ſtands, they leave off marching forward; and if he ſing more pleaſantly, they are ſo delighted with it, that they cannot hold tears. The Shepheards of theſe flocks, make their Shepheards pipe of the tree (called *Rhododaphus*) the ſound whereof delighteth thoſe that go before the herd. *Gratius* alſo writeth to this effect;

> *Fingit equos Piſis Numidæ, &c.* ———→
> *Audax & patiens operum genus ille: vigebit*
> *Centum actus ſpatiis, atque eluctabitur iram,*
> *Nec magni cultus ſterilis quodcunque remiſit*
> *Terra ſui, tenueſque ſitis producere rivi.*

Although the place be not perfect, yet that that is ſpoken concerning the *Numidian* and *Lybian* Horſes, is manifeſted as well by the words of *Oppianus* before recited, as alſo by that which *Ælianus* ſetteth down: for (ſaith he) I have heard theſe things touching the *Lybian* Horſes of the men of that Nation, that of all other Horſes they are the ſwifteſt, and that they have no ſenſe of their labours, being lank by reaſon of their ſlenderneſs and thinneſs of their ſhape, and are wholly of themſelves fit to endure their maſters negligence, for their maſters give them no meat or fodder, neither doth any man rub or [illegible] them with the curry-combe after they have laboured or travelled: neither do they lay any [illegible] ſtraw for them to ly on, nor pare their hoofs, but ſo ſoon as they have ended their [illegible]ing off their backs, they turn them to ſeek their food, and in like manner the men of [illegible] with leanneſs, and all beſmeared with filth, do ride on Horſes of this ſort.

The Horſes and Oxen of *Africa*, which dwell between *Getulia* and us, are as ours, that is, having longer lips, (the Interpreters tranſlate it hoofs.) Their Kings take delight in troops of Horſes, ſo that there are numbred to him every year four hundred thouſand Colts.

The *Chalambrian Lybians* are before ſpoken of, and the *Naſavions* we will ſpeak of hereafter. *Barbary* breedeth very few Horſes; but the *Arabians* which inhabit in the Deſert, and the people of *Lybia* do breed very many, and they do not ſo much accuſtom them to journeys and warfare, as to hunting, and feeding them with Camels milk only twice a day and night, whereby they keep them fine, but very lean, and in the time of graſs they turn them out to feed in the field, but they ride not on them.

The Horſes of *Maſſylia* are equal with the *Lybians*. The people of *Magnetia* have been renowned in feeding and bringing up Horſes, and they are very skilful in combate on Horſe-back (as *Lucanus* ſaith.) The *Magnetians* are famous for Horſes, and the Nation of *Nytaia* for Oars: *Magnetia* is a countrey of *Macedonia*, bordering upon *Theſſaly*, ſo the City and Countrey of *Aſia* lyeth toward *Mæandrus*. *Oppianus* commendeth the *Magnetian* Horſes. The *Moores* fight often on Horſe-back with Spears, but their Horſes are naked, and their bridles made of ruſhes.

The *Maſſylians* following the *Lybians* (for the moſt part) are furniſhed after that manner, and they reſemble others, having little Horſes, both ſwift, obedient, and eaſily to be ruled with a rod.

The collars of their Horſes are made of wood or hair, whereby the bridles hang. The principal Horſes of *Barbary* are not ſwift, but in reſpect they live on fodder, they are more handſome and better in fleſh, which they uſe in eminent danger, when it ſtandeth them upon to eſcape the rage of their enemies. Thus far I have related the words of *Oppianus*, touching the nouriſhing of Horſes, among the *Lybians*, where he ſheweth that they are all alike, both in ſhape and other proportion. Touching the *Nemeſian* Horſes, they are all one with the *Maurans* and *Maruſans*, (as *Strabo* witneſſeth) calling them nimble and ſwift kindes amongſt the *Moores*.

Strabo.

Leo African.

The *Sicilians* are ſwifter then the *Moores*, and the *Moores* are of a more valiant courage then the *Sicilians*, or ſome ſuch like other thing, who are furniſhed with yellow colours, and ſhew to the eye moſt ſhining and ſplendant, and which is more, they only deſire the roaring of a Lyon, for which when they come to other wilde Beaſts by way of hunting, he commendeth them to be excellent: then he ſaith that the yellow is the beſt colour.

In

Abſyrtus.

Ælianus.

In the Countrey of *Mauritania* are great ſtore of Lyons, and of the *Nazacanos* we have ſpoke of before ſufficiently. The *Median* Horſes are of exceeding greatneſs, and the men of that Countrey are ſo bewitched with the rich attire and ſhape of their bodies, and alſo their Horſes being ſo looſe with ſuperfluity or rankneſs, that the Horſes take delight in their Maſters, both in greatneſs and in fairneſs of body, and ſuch coſtly furniture upon their backs, that they ſeem to perceive their own ſtature and comelineſs. The *Medes* every year by way of cuſtome pay three thouſand Horſes. *Herodotus* alſo calleth the *Niſean* Horſes the *Medes*, whereof more ſhall be ſpoke afterwards. The *Menapians* amongſt our Country-men, the only men which I ſuppoſe were once call'd *French* of *Cæſar*, and the *Rugians*, (as Warriours) for the moſt part are in eſtimation. I alſo finde that the *Rugians* inhabited that Countrey which is now called *Rugerland*, and that *Paulus Diaconus* remembreth them, *lib.* 1.

Touching the affairs of *Longobardus*, there are that ſay they departed into *Mechelburgia*. Theſe are the right off ſpring of the *Germans* (ſaith *Althametus*) they are counted as *Germans*, both in language and vertue. *Gratius* writeth of the *Marcibians*, ſaying the *Marcibians* ſcarſe yeeld their tough neck to the ſword. *Virgill* alſo declareth *Mycenia* to be a Countrey of moſt notable Horſes: and *Gratius* commendeth a Horſe fit for hunting highly in theſe verſes:

Conſule Penei qualis perfunditur amne
Theſſalus, aut patriæ quem conſpexere Mycenæ
Glaucum, nempe ingens, nempe ardua fundet in auras
Crura, quis Eleas potior luſtravit arenas?
Ne tamen hoc attingat opus, jactantior illi
Virtus, quam ſilvas durumque laceſſere Martem.

The *Myſian* Horſes were once great in eſtimation (as *Camerarius* writeth.) Alſo the *Naſamonians* are people of *Lybia*, living as ſpoylers of the ſhips in the *Syrtes*. Of all theſe Horſes before ſaid, the *Niſean* Horſe is the goodlieſt, and fitteſt to carry the body of a King, they are of a paſſing good ſhape, an eaſie pace, and very ſubmiſſive to the bridle; having a little head, and a long and thick mane, with yellow or brown hairs hanging down on both ſides: *Armenia* is very fit for feeding Horſes, wherein is a certain medow called *Hippoboans*, by which they make their journey which paſs from *Perſia* and *Babylon* into the *Caſpian* Border, in which place they feed five hundred Mares which belong unto their King.

The *Niſæan* Horſes (written with *Jota* and ſimple *Sigma*, as *Euſtathius* writeth) are the moſt excellent and beſt; ſome ſay that they have their generation from *Germany*, others out of *Armenia*, but they have a certain kinde of ſhape like the *Parthians*.

In *India* moſt of their living creatures are far greater then in other places (except Horſes) for the *Niſæan* Horſes, do exceed the *Indian* Horſes, (as *Herodotus* writeth) in his ſeaventh Book, deſcribeing the *Perſian* Horſe. Behinde the ſpears (ſaith he) came ten Horſes in moſt ſumptuous furniture, which were *Niſæans*, ſo called, becauſe there is a great field named *Niſæus* in the Countrey of *Media*, which yeeldeth Horſes of a great ſtature. After theſe followed *Jupiters* Chariot drawn with eight Horſes, after which *Xerxes* was caryed in a Chariot drawn by *Niſæan* Horſes, and by how much the greater the *Lybian* Elephant is then the *Niſæan* Horſe, ſo much the greater are the *Niſæan* Horſes then the *Indian* (as the ſame man ſaith) in his firſt Book: but the King was about to offer a white Horſe, that is of the *Niſæan* Horſes, having a better mark as ſome expounded.

There are that ſay that *Niſæus* is a plain of *Perſis*, where the moſt famous and notable Horſes are bred. Some interpret it to the yellow *Niſæan* Horſe, becauſe all the Horſes of *Niſæam* are of this colour. Between *Suſinax* and *Bactria*, there is a place which the *Greeks* call [*Niſos*] in which the moſt ſingular fine Horſes are bred. There are alſo that ſuppoſe they are had from the red Sea, and all thoſe to be of a yellow colour. *Herodotus* writing of *Niſæus*, maketh it a part of *Media*. *Orpheus* alſo writeth, that there is a place in the red Sea called *Niſa*. *Stephanus* alſo maketh mention of [*Nyſæan Pedion*] with the *Medes*, of which people the Horſes are ſo called. *Cælius Rhodiginus* reproved a certain man which tranſlated the *Iſlandiſh* Horſes for the *Niſæan* Horſes. *Plutarch* ſaith that *Pyrrhus* had an apparition of a *Niſæan* Horſe armed and furniſhed with a Rider, that *Alexander* the Great was Captain thereof.

The *Medes* have Colts of a moſt noble kinde of Horſes, which (as antient Writers do teach us, and as we our ſelves have ſeen) men when they begin the battel with a fierce encounter are wont to prance valiantly, which are called *Niſæan* Horſes.

Touching the *Paphlagonians*, about the education of their Horſes, ſee more among the *Venetians*: The *Parthian* Horſes are of a large body, couragious, of a gentle kinde, and moſt ſound of their feet. Concerning thoſe Horſes which have but one eye, commended among the *Parthians*, and of thoſe which are diſtinguiſhed by diverſity of colours, from thoſe that come forth firſt, I have ſpoke already out of *Abſyrtus*, The *Armenian* and *Parthian* Horſes are of a ſwifter pace then the *Sicilians*, and the *Iberi* ſwfter then the *Parthians*, whereof *Gratius* writeth to this effect:

Scilicet & Parthis inter ſua mollia rura
Manſit honor: veniat Caudini ſaxa Taburni,
Garganumque trucem, aut Ligurinas deſuper Alpes,
Ante opus excuſſis cadet unguibus; & tamen illi

Eſt animus fingetque meas ſe niſus in artes;
Sed juxta vitium poſuit Deus.———

That is to ſay, among the *Parthians* there hath remained honour for their ſoft Countries; but let him come to the Rocks of *Caudmus*, *Tabernus*, and too rough *Gargarus*, or upon the *Ligurian Alpes*, then he will quickly ſhake off his hoofs, and make a ſhew of great valiantneſs. The Horſes of the *Celtiberians* are ſomewhat white; and if they may be brought into *Spain* they change their colour. But the *Parthians* are alike, for they excel all others in nimbleneſs and dexterity of running: How the *Parthians* do make their pace eaſie in the trotters and hard footing Horſes, after the manner of Geldings, ſhall be declared afterwards, for *Perſia* preferreth theſe Horſes above the cenſure of their patrimonies as well to carry, (having an eaſie pace) and being of moſt excellent dignity: As for their pace it is thick and ſhort, and he doth delight and liſt up the Rider, being not inſtructed by art, but effecteth it by nature.

Amongſt theſe ambling Nags, (called of the *Latines* among the common ſort of *Tot narii*) their pace is indifferent, and whereas they are not alike, they are ſuppoſed to have ſomething common from both; as it hath been proved: whereof *Vegetius* writeth in this manner.

In a ſhort journey they have the more comelineſs and grace in going, but when they travel far, they are impatient, ſtubborn, and unleſs they be tamed, will be ſtubborn againſt the Rider; and that which is a more greater marvel, when they are chafed, they are of a delightful comelineſs, their neck turneth in manner of a Bow, that it ſeemeth to ly on their breaſt. The *Pharſalian* Mares evermore bring Foals very like their Syre, and therefore very well ſo named, *Equæ probæ*. We read of the *Phaſian* Horſes which receive their name (from the mark or brand of a bird ſo named) or elſe becauſe of their excellent beauty and comelineſs.

The *Roſean* Horſes, *Varro* ſo nameth of *Roſea*, which *Volatteranus* writeth to be moſt fit for War: and this *Roſea*, otherwiſe *Roſcea*, *Feſtus* ſaith, that it is a Countrey in the coaſts of the *Reatians*, ſo called, becauſe the fields are ſaid to be moiſt with that dew. The Horſes of *Sacæ*, if they happen to throw down their Rider, they forthwith ſtand ſtill, that they may get up again. *Vegetius* having commended the *Perſian* Horſes ſaith, that the *Armenians* and *Sapharens* do follow next. This *Saphirine* verily is an Iſland in the *Arabian* coaſt, and the people of *Saphiria* lye beſide *Pontus*. The Horſes of *Epirota*, *Salmarica*, and *Dalmatia*, although they will not abide to be bridled, yet they ſhew that they are warlike by their legs. *Cælius.* *Ælianus.*

The *Sardinian* Horſes are nimble and fair, but leſſer then others. The *Sarmatican* kind of Horſes is feat and well faſhioned in this kind, very fit for running, unmixt, having a well ſet body, a ſtrong head, and a comely neck. Some Horſes they call *Aetogenes*, from a certain mark which they have in their ſhoulders and colour, which the *Sarmatians* do take unto themſelves as very good, with which they do contend about their cruelty, wherefore they imploy them in warlike out-rodes, but thoſe that bear the Eagles mark in their buttocks and tail, they are diſallowed of them; and they report that they mark them ſo, becauſe they will not uſe them, by reaſon leſt they ſhould quickly be deſtroyed or run into ſome trouble. *Vegetius.*

The *Sarmatians* when they entend any long journeys, the day before they keep them faſting, giving them a little drink, and ſo they will ride them a hundred and fifty miles continually going. Theſe Horſes are very fit for War, and many of them are ſound gelded in their tender age, and they ſay they never loſe their teeth. It is a cuſtome of *Scythia* and *Sarmatia* to geld their Horſes to make them more gentle: they are ſwift, little, and fierce, but very ſtubborn and untamed; neither doth *Circo*, (ſituate near *Sicilia*) breed Horſes inferiour to the *Spaniſh*, as *Vegetius* writeth. The *Epirotan* and *Siculian* Horſes are not to be deſpiſed, if they were well bred and educated, they want not comelineſs and good qualities. *Pliny.*

The *Siculian* Horſes are moſt ſwift. *Lilybæum* is a promontory of *Sicilia* lying towards *Lybia*, which a certain verſe maketh more plain: but as I underſtand it is the Three-cliſt-topt-mountain *Ætna*, which caſteth forth fire, and covereth the carkcaſe of *Enceladus* the Giant, lying there under (whereof *Oppianus* writeth) and ſome others alſo. But (ſaith he) the *Armenians* and *Parthians*, have ſwifter courſers by far, then the *Siculians*. Now, let us hear *Gratius* himſelf, diſcourſing of the *Siculian* Horſes, as well as of the *Lybican*.

Sic & Strymonio facilis tutela Biſaltæ,
Poſſent Ætneas utinam ſe ferre per artes.
Qui ludus Siculis: quid tum ſi turpia colla,
Aut tenuis dorſo curvatur ſpina? per illos
Cantalus Graiis Agragas, victæque fragoſum
Ne broden liquere feræ. O quantus in armis
Ille meis, cujus dociles pecuaria fœtus
Sufficient, queis Chaonias contendere contra
Auſit, vix merita quas ſignat Achaia palma.

But as for *Gratius*, I ſuſpect the place to be unperfect; for *Agragas* is a Mountain of *Sicilia*, having a Town ſituate in the top of it, bearing the ſame name, where their Anceſtors were wont to nouriſh and bring up the beſt Horſes. There is alſo in *Sicilia* a Mountain called *Nebrodes*, which ſome think to be ſo called by reaſon of the plenty of Dear, but they have no Author for it, and *Nebrodon.*

as for the printed Book of *Gratius*, I finde it expreſſeth it not ſo well as *Virgill* ſetteth it down, ſaying, that *Agragas* was a breeder of moſt couragious and notable Horſes: but yet *Servius* ſaith, (according to *indarus*) that the *Agrigentines* in times paſt ſent their Horſes to the juſting or combates of *Græcia*, returning with victory from thence, and we have alſo read, that in *Cappadocia* whole troops of Horſes have been deſtroyed. The men of *Delphos* by the anſwer of *Apollo* got herds and great ſtore of Horſes from *Agrigentine*, and thoſe were excellent. *Ariſtophanes* calleth thoſe great *Ætnean* Horſes (*Canthari*) either of the greatneſs of the Mountain, or elſe great *Canthars* are bred in it, or of the Horſes of *Ætna*, being notable for ſwiftneſs and running. The Horſes that are bred in *Creet* and *Cappadocia* are alſo moſt excellent.

Strabo. In *Greece* there are moſt notable Horſes of *Theſſaly*, which *Abſyrtus* ſaith be the beſt in all *Greece*. The words of *Gratius* the Poet ſpeaking of the *Theſſalian* Horſes are before recited. The Mares of *Admetus* were the moſt excellent, but as *Homer* reporteth the *Theſſalian* were before them. The Solitude or Wilderneſs of *Arcananus* is as commodious to feed Horſes, as *Theſſalia*. It is certain that *Theſſalia* excels with Horſes, from whence *Xerxes* is ſaid to have made a combate, that he might try his Horſes there where he underſtood the beſt breed of *Greekiſh* Horſes to be, and from whence this proverb aroſe, *Decernatur equa Theſſalia* (*viz.*) let the *Theſſalian* Mare be tryed by battail, a proverb of excellent worth, becauſe in old time the chiefeſt praiſe was of the *Theſſalian* Mares: which is very apparent by the Oracle that was delivered to the *Æginenſians*. *Suidas* relateth (but I know not out of what Author) that *Theſſalia* hath excellent Horſmen; *Thracia* expert ſhooters; and *India* light armour: ſo hath likewiſe *Creet* and *Caria*.

Eraſmus writeth, that *Theſſalia* is moſt fit to feed Horſes, who do far excel the *Arcadians* and *Epidaures*, as *Strabo* witneſſeth, *lib* 8. *Cæſar* was ſaid (when he was Dictator) to have made the firſt ſhew among the *Romans* of the Horſes, fighting againſt Buls, and killing them, whereof *Lucanus* writeth thus:

> *Theſſalius ſonipes bellis feralibus omen.*

Textor. That is to ſay; the *Theſſalian* Horſe is profitable for fence and deadly conflicts. There is alſo in *Theſſalia* a City (named *Pella*) from whence I deem the *Pellæan* Horſes are ſo called of *Gratius*, yet there be other places called *Pella* (as *Macedonia* and *Achaia*) whereof *Gratius* writeth thus:

> *Spadices vis Pellæi valuere Cerauni,*
> *Et tibi devotæ magnum pecuaria Cyrrhæ*
> *Phœbe decus nostras agere in ſacraria tonſas.*

Which (*Cerauni*) are Mounts of *Epirus*, and *Cyrrha* is a Town of *Phocis*, ſituate at the foot of the hill *Parnaſſus*, where *Apollo Cyrrhæus* was worſhipped. The *Tyrrheans* being excellent warriors, are commended of *Oppianus*. Out of the Iſlands of the *Tyrrhenian* Sea (eſpecially *Corſica* and *Sardinia*) there be very ſhort Horſes, but they are of good courage, and gentle withall.

Volaterran. The *Thracian* Horſes are foul and ill ſhapen, being rough all over their bodies, and having very great ſhoulders, which in the *Greek* is named (*Calomyſten*) ſuch a one as will caſt down the rider on the ground from off his back, they are crook-backt, or bunched out; or elſe of divers kindes; and therefore they have an unſure and reeling pace, and their courſe is very unconſtant. *Abſyrtus* ſaith, the *Thracian* Horſes are the beſt. The *Thuringian* Horſes are neighbours to *Heſſis*, which *Pliny* and *Volaterranus* ſuppoſed, are called (*Mediterranean Cimbri.*)

There be ſome that ſuppoſe the *Venetians* to deſcend from a people of *Paphlagonia* (called *Venetans*) which after the deſtruction of *Troy* came to theſe places, and by theſe they make an argument, conjecturing it to be good, in regard they are wholly imployed about breeding Horſes, which at this time faileth altogether, but in former days they were very careful to follow their buſineſs about the training up of young Mules, whereof *Homer* writeth. And *Dionyſius* the Tyrant of *Sicilia* ordained, that the breed of Horſes ſhould be fetcht from hence, to make warlike combates with them, that among the *Gracians* the excellency of the *Venetian* breed ſhould remain, and that a great while after that breed of Horſes got the praiſe. *Vuallachus* this day is called of the *Saxons* a gelded Horſe, and brought out of that Countrey, which ſometimes was called *Dacia*. The *Lycoſpades* and *Lycophotians* ſhall be ſpoken of hereafter.

Of the choice of good Horſes.

The members of an eligible Horſe.

PAlladius adviſeth to obſerve four things in choice of a Stallion Horſe, the form or outward proportion, the colour, the merit, and the beauty, all which are neceſſary to be obſerved in the choice of Colts or elder Horſes, that they may be of a generous race, having ſoft legs, lofty paces, gently treading, ſuch as will lead the way, and be not afraid of any water, bridge, or ſudden noiſes; having a gentle neck, a ſharp head, a ſhort belly, a fat back, a dapple colour, nimble ears, thick mane lying on the right ſide, a double bone deſcending by his loins, a ſounding hoof, and legs that cannot ſtand ſtill, which *Virgil* expreſſeth in theſe words:

Nec non & pecori eſt idem delectus equino.
Tu modo, quos in ſpem ſtatuis ſummittere gentis,
Præcipuum jam inde a teneris impende laborem.
Continuo pecoris generoſi pullus in arvis
Altius ingreditur, & mollia crura reponit.
Primus & ire viam, & fluvios tentare minaces
Audet, & ignoto ſeſe committere ponti:
Nec vanos horret crepitus, illa ardua cervix,
Argutumque caput, brevis alvus, obeſaque terga:
Luxuriatque toris animoſum pectus, honeſti
Spadices glancique: color deterrimus albis
Et gilvo: tum, ſi qua ſonum procul arma dedere,
Stare loco neſcit, micat auribus & tremit artus:
Collectumque premens volvit ſub naribus ignem.
Denſa juba, & dextro jacta recumbit in armo.
At duplex agitur per lumbos ſpina, cavatque
Tellurem, & ſolido graviter ſonat ungula cornu.

Varro ſheweth that at the firſt foaling of a Colt, a man may obſerve by certain ſignes how he will prove when he is in perfection; for if he be chearfull, bold, and not terrified at any ſtrange ſight, if he run before the company, be wanton, and contend with his equals in courſe, and over-run them: if he leap over a ditch, go over a bridge, or through water, and being provoked appeareth meek; theſe are the moſt true ſignes of an elegible Colt.

Signs to chuſe a good Colt.

Alſo it is to be conſidered, whether they riſe quickly, being ſtirred from their reſt, and run away ſpeedily, if their bodies be great, long, full of muſcles, and ſharp, having a little head, black eyes, open and wide noſtrils, ſharp pricked ears, a ſoft and broad neck, not long, a thick mane curled, and falling on the right ſide, a broad and full breaſt, large ſhoulders, and ſhoulder-bones, round ribs, a little belly, a double back-bone, or at the leaſt not thin, bunchy, and extended; his loins preſſed downwards, broad, and well ſet, little and ſmall ſtones, a long tail, with curled hair, high, ſtraight and equal legs, round knees, not great, nor bending inward; round buttocks, brawny and fleſhy thighs, high, hard, hollow, and round hoofs, well ſet to the crown of their paſtern, having veins conſpicuous and apparent over all his body. That Colt which at the time of his foaling hath the moſt higheſt legs, is likelieſt by common reaſon to prove moſt able and noble in his age, for of all the joynts in the body the knees and legs grow leaſt, and they which have flexible joynts in their infancy, will be more nimble and flexible in their age. And thus much for the parts of a Colt. Now, in the next place we muſt likewiſe take conſideration of a Horſe untamed, and ready for the ſaddle. For the outward parts of his body, ſaith *Xenophon*, yeeld evident ſignification of his minde, before he be backed.

Columella.
Varro.
Albertus.
Of the choiſe of a Horſe unbacked or never ridden.

Plato willeth that the ſtate of his body be ſtraight, and articulate, his head bony, his cheeks little, his eyes ſtanding out, and not ſunk into his head, flaming like bloud, looking cruelly if the body be black; but black eyes if the body be white, do argue a gentler and better diſpoſition; ſhort and little ear, the crown of his head greater then the reſidue, broad noſtrils, whereby he not only looketh more terribly, but breatheth more eaſily; for when one Horſe is angry with another, in their rage they are wont to ſtretch out their noſtrils vehemently.

The beak or ſnowt of a Horſe, ought not to ſtand out like a Swines, but to bend down a little crooked, the head to be ſo joyned to the neck, as it may bend more commodiouſly, that is, if the neck be ſmall next to the head, ſo will the neck ſtand before the rider, and his eyes appear before his feet: and although he be full of ſtomach, yet will he never be violent or ſtiffe necked. It ought alſo to be conſidered, whether his cheek bones be ſharp, tender, or unequal, ſtanding one above another, for their imparity maketh the Horſes neck to be hard and ſtubborn.

The back-bone above his ſhoulders higher, commodious to ſet the ſaddle upon, and his whole body the better compacted, if the back-bone be double, and ſmooth; for then ſhall the Rider ſit more eaſily, and the form of the Horſe appear more delectable. A large breaſt ſheweth his comelineſs and ſtrength, making him fit to take longer reaches without doubling of his legs, becauſe in a broad breaſt the legs ſtand further aſunder: large ſide or ribs ſwelling out above the belly, for they ſhew the ability of the Horſe both to his food and work, a round even belly, and his loins being broad and ſhort, cauſeth the fore-legs to be lifted up more eaſily, and the hinder-legs to follow; for the ſmall loins do not only deform, but enfeeble and oppreſs the Horſe, there fore the loins ought to be double, the ribs broad and fleſhy, agreeable to the breaſt and ſides, buttocks ſolid and broad, with a long tail reaching down to the heels of his hinder-legs, Thighs full of ſinews, the bones of his legs thick like poſts of the whole body, but that thickneſs ought neither to be of veins nor fleſh, for then they are quickly inflamed and wounded, when they travel in rough and ſharp ways: for if the fleſh be cut a little, the commiſſures part aſunder, and cauſeth the Horſe to halt, and above all other things have a regard to his feet, and therein eſpecially to his hoof, for being thick, it is better then being thin, likewiſe if they be hard, cauſeth the paſtern to ſtand higher from the ground, for ſo in their pace the ſoft and hard parts of the foot do equally ſuſtain one another, and the hard hoof yeeldeth a ſound like a Cymbal, for the goodneſs of a Horſe appeareth by the ſound of his feet.

Now on the contrary ſide it is good alſo to ſet down the faults and ſignes of reprobation in Horſes, and firſt of all therefore, a great and fleſhy head, great ears, narrow noſtrils, hollow eyes, a long neck, a mane not hairy, a narrow breaſt, hollow ſhoulders, narrow ſides, and little fleſhy ſharp loins, bare ribs, hard and heavy legs, knees not apt to bend, weak thighs, not ſtrong, crooked legs, thin, full fleſhy, plain and low hoofs; all theſe things are to be avoided in the choiſe of your Horſe.

Of the choiſe of Stallions *and breeding* Mares.

Now in the next place, let us conſider the choiſe of Horſes and Mares appointed for breed and procreation, and we have ſhewed already, that in a Stallion, we are principally to conſider the colour, form, merit, and beauty. This Stallion is called in *Italy*, *Rozzone*; in *France*, *Eſtalon*; in *Germany*, *Ein Springhengſt*; and in *Latine*, *Admiſſarius, quia ad generandam ſobolem admittitur*, becauſe he is ſent to beget and engender. The *Gracians*, *Anabates*, or *Ocheutes*. Firſt of all therefore, to begin with the colour: that Horſe is beſt which is of one continued colour, although oftentimes (as *Rufus* ſaith) Horſes of a deſpicable colour prove as noble as any other.

Of the colour.

The chief colours are theſe; bay, white, carnation, golden, ruſſet, mouſe-colour, flea-bitten, ſpotted, pale and black: of all theſe the black or bay is to be preferred. *Oppianus* maketh diſtinction of Horſes by their colour in this manner, the gray or blewiſh ſpotted is fitteſt for the hunting of the Hart, the bright bay for the Bear and Leopards, the black with flaming eyes againſt the Lyons. The natural colour of the wilde Horſes are an aſh colour, with a black ſtrake from the head along the back to the tail; but among tame Horſes there are many good ones of black white, brown, red, and flea-bitten colour. But yet it is to be remembred, that ſeldom or never Colts be foaled white, but rather of other colour, degenerating afterward by the increaſe of their age, for ſuch Horſes are more lively, durable, and healthy, then other of their kinde, and therefore *Plutarch* commendeth a white Horſe of *Sylla* for his ſwiftneſs of foot and ſtomach: among all colours, firſt the black, then the bay, next the white, and laſt the gray are moſt commended.

Varrinus.

Camerarius commendeth a certain colour called in *Latine*, *Varius*, and may be engliſhed daple gray, becauſe of the divers in-textures of colours, which although many Nations do diſallow, yet undoubtedly that colour (ſaith he) is a ſigne and argument of a good nature, conſtituted and builded upon a temperate commixture of humors. Where black, white, and yellow hairs appear, ſo that the ſight of one of theſe is nothing inferiour to the equeſtrial party coloured capariſons: Among Horſes which are divers coloured, they which have ſtars in their fore-head, and one white foot, were moſt commended; ſuch were the *Thracian* Horſes not admitted in copulation, of which *Virgil* ſpeaketh in this manner;

——Thracius albis
Portat equus bicolor maculis, veſtigia primi
Alba pedis, frontemque oſtentans arduus albam.

Black Horſes alſo which have one ruſſet or ſwart ſpot in their faces, or elſe a black tongue are highly commended for generation, but the pale coloured Horſes are no wayes to be admitted to cover Mares, becauſe their colour is of no account: and likewiſe it is ſeldom ſeen that the Foal proveth better then the Sire. The bay colour hath been received without exception for the beſt travellers, for it is ſuppoſed, that *Baudius* (amongſt the *Latines*) is derived of *Vadium*, *quia inter cætera animalia fortius vadat*: becauſe among other creatures he goeth moſt ſurely.

Artificial means to make Mares conceive the beſt coloured Colts.

It is alſo behoveful that in a Stallion Horſe, the mane be of the ſame colour with the body. Horſe-keepers have deviſed to make their Mares conceive ſtrange colours, for when the Mares would go to the Horſe, they paint a Stallion with divers colours, and ſo bring him into the ſight and preſence of the Mare; where they ſuffer him to ſtand a good while, untill ſhe perfectly conceive in her imagination the true *Idea* and full impreſſion of thoſe pictures, and then they ſuffer him to cover her; which being performed, ſhe conceiveth a Foal of thoſe colours: In like manner, Pigeons conceive young ones of divers colours.

The *Germans* to mingle the colour of Horſes hairs (eſpecially to bring black among white) take the roots of Fearn, and of Sage, and ſeethe them together in lee, and then waſh their Horſes all over therewith. For the making of their Horſes white, they take that fat which ariſeth from the decoction of a moul in an earthen pot, and therewithall anoint the places they would have white, Alſo they ſhave off the hairs, and put upon the bald place crude Hony, and Badgers greaſe, which maketh the hairs to ariſe white: and many other means are uſed by Horſe-leaches, as afterward ſhall be ſhewed. In the old age of a Horſe his hair doth naturally change white, above all other beaſts that we know, and the reaſon is, becauſe the brain-pan, is a more thin and ſlender bone, then the greatneſs of his body would require, which appeareth by this, that receiving a blow in that place, his life is more endangered then by hurting any other member, according to the obſervation of *Homer*:

E:

Et quæ ſetæ hærent capiti, lethaleque vulnus
Præcipue ſit equis.———

The form.

The beauty of a Stallion.

And thus much ſhall ſuffice for the colour of a Stallion: now followeth the form or outward proportion of the body, which ought to be great and ſolid, his ſtature anſwerable to his ſtrength, his ſides large, his buttocks round, his breaſt broad, his whole body full and rough, with knots of muſcles, his foot dry and ſolid, having a high hoof at the heel. The parts of his beauty are theſe, a little and dry head, the skin almoſt cleaving to the bones, ſhort and pricked ears, great eyes, broad noſtrils, a long and large mane and tail, with a ſolid and fixed rotundity of his hoofs, and ſuch an one, as thruſteth his head deep into the water when he drinketh; his ribs and loins like an Oxes, a ſmooth and ſtraight back, his hanches or hips long, broad, and fleſhy, his legs large, fleſhy and dry, the ſinews and joynctures thereof great, and not fleſhy near the hoofs: that the hinder part of his body be higher then his forepart, like as in a Hart, and this beauty better appeareth in a lean body then in a fat, for fatneſs covereth many faults; the former parts are thus expreſſed by *Horace*:

Regibus hic mos eſt ubi equos mercantur, opertos
Inſpiciunt, ne ſi facies ut ſæpe decora
Molli fulta pede eſt, emptorem inducat hiantem,
Quod pulchri clunes, breve quod caput, ardua cervix.

The age of a Stallion.

If you will make trial of your Stallion, whether he be fit for procreation, *Hipparchus* teacheth you this experiment: preſs the genital member with your two fingers, and with locks of Wooll draw out his ſeed, which being ſo drawn out, if it cleave and hang together, ſo as it will not be cut nor eaſily parted, it is a demonſtration of a good Stallion; but if it hang not together like birdlime, but eaſily go aſunder like Milk or Whay, ſuch a Horſe is not to be admitted to cover your Mares. When Horſes be old among other faults, they engender Foals lame in their feet, and therefore they are to be kept, and not to be admitted to copulation nor War; for his rage is like a weak fire among wet ſtuble, according to theſe verſes:

———*Morbo gravis aut ſegnior annis*
Deficit, abde domo, nec turpi ignoſce ſenectæ.
Frigidus in venerem ſenior, fruſtraque laborem
Ingratum trahit: & ſi quando ad prælia ventum eſt,
Ut quondam in ſtipulis magnus ſine viribus ignis,
Incaſſum furit.———

Columella.

Therefore it behoveth that a Stallion Horſe be not under three years old when he covereth a Mare, and it is beſt for him to begin at five, for ſo he will endure in generation, not only till he be twenty year old, but alſo to thirty or forty years, as in ſome Countreys hath been often proved. They are not to be admitted to cover above fifteen in one year at the moſt, and a young Horſe not above ten or twelve in one year; the reſidue may be ſuffered with obſervation of their ſtrength and nature.

Palladius.

The King of *Babylon* beſide his Horſes for war had eight hundred Stallions, which were admitted to cover ſix thouſand Mares, ſo that every one had twenty a peece; there is alſo a place in *Syria* near *Apamia*, where in one plot of ground were nouriſhed thirty thouſand Mares, and three thouſand Stallions (as *Cœlius* ſaith) ſo that every Stallion had an hundred Mares to cover (in that place) which number exceedeth the proportion of nature. It is alſo to be remembred, that Stallions are to be ſeparated from Mares all the year long, except at the time of procreation, and then alſo he muſt be largely fed according to theſe verſes:

His animadverſis, inſtant ſub tempus, & omnes
Impendunt curas denſo diſtendere pingui,
Quem legere ducem, & pecori duxere maritum:
Florenteſque ſecant herbas, fluvioſque miniſtrant,
Farraque: ne blando nequeant ſupereſſe labori:
Invalidique patrum referant jejunia nati:
Ipſa autem macie tenuant armenta volentes.
Atque ubi concubitus primos jam nota voluptas
Sollicitat, frondeſque negant, & fontibus arcent.
Sæpe etiam curſu quatiunt, & Sole fatigant:
Cum graviter tunſis gemit area frugibus: & cum
Surgentem ad Zephyrum paleæ jactantur inanes.
Hoc faciunt, nimio ne luxu obtuſior uſus
Sit genitali arvo, & ſulcos oblimet inertes,
Sed rapiat ſitiens Venerem, interiuſque recondat.

Abſyrtus.

It is alſo to be obſerved, that the males which are deſigned for procreation be not over much labored, for then he will be the more weak for generation, nor yet ſuffered to be too idle, for then a certain fleamy humor is increaſed in them, which likewiſe diſableth them in copulation; and thus much for the males.

The choiſe of Mares.

Almoſt all the ſame things which have been ſaid of the male, belong to the female, except the belly of the female ought to be greater; but if there be any white ſpeckles or ſpots in the eyes of the female, ſuch as are not contracted by accident, but breed in them by nature, ſuch a one is refuſed for breed; for an Horſe born of ſuch a Mare, when he cometh to be old, will likewiſe be affected with the ſame blindneſs; but if it be a female, by reaſon of her yearly purgation, ſhe may peradventure avoid that miſchief.

It behooveth therefore that the Mares appointed for race, be well compacted, of a decent quality, being fair and beautiful to look upon, the belly and loins being great, in age not under three nor above ten years old.

The copulation of Horſes and Mares.

Concerning their admiſſion to generation, it is to be remembred, that the *Latins* have a proper term to ſignifie the appetite of the female to the male, which they call, *Equire*, that is, Horſing, and they continue in that luſt ſixty dayes together; the ſignes whereof are theſe, They forſake their company, running not toward the Eaſt and Weſt, but the contrary, to the North and South: neither permit they any body to come near them, untill they either be wearied or meet with the male, and if they meet with a female like themſelves, they joyn neer to her, and ſeem to rejoyce at her ſociety, lifting up the tail, changing of the voice, and ſending forth of her ſecrets, a certain thin humour, ſomewhat like the ſeed of a Horſe, which is called *Hippomanes*.

Ariſtotle.
Albertus.

They alſo make water more often then at other times, ſo that among all the females in the world, there is none, beſide a Woman, that is more greedy of procreation then a Mare, becauſe they want a menſtruous purgation, and yet eat aboundance of meat, which *Virgil* expreſſeth, ſetting down their unlimitable rage, which carryeth them over Mountains and Rivers, in the time of this fury.

Scilicet ante omnes furor eſt inſignis equarum,
Et mentem Venus ipſa dedit, quo tempore Glauci
Potniades malis membra abſumpſere quadrigæ.
Illas ducit amor trans Gargara, tranſque ſonantem
Aſcanium, ſuperant montes & flumina tranant.

Alſo at that time, their genital hangeth forth more then at other times, but if their manes be ſhorn off, their luſt is extinguiſhed. It is reported alſo by *Columella* that in *Spain*, in the Mountain *Tegro* which reacheth into *Portugal* upon the Ocean, there be Mares which rage ſo far in luſt, that by their ardent deſire of copulation they conceive by the Southweſt winde, without the company of a Horſe, (even as Hens do lay egges being not troad by a Cock) which are called *Hypenemia*, but thoſe Foales live not till they be above three year old. And it is the property of theſe Mares (ſaith *Avicen*) by kicking againſt the winde with their hinder legs, to open their own womb, and to receive in that delectable air, wherewithal they are ſatisfied.

Alſo he ſaith, that he heard of an old man, which was born in the Iſle of *Pealtupha*, that the Mares thereof never ceaſe running, from the one end of the Iſland to the other, when the rage of their luſt is upon them; which thing is elegantly deſcribed by a Poet, how they turn themſelves to the Weſt, ſtanding upon the rocks, and there draw in the cold aire, which oftentimes maketh them conceive, wondering that they conceive not rather by the Eaſt ſunriſing or South, then by the Weſterly winde bordering upon the North; the Poets words are theſe:

Continuoque avidis ubi ſubdita flamma medullis,
Vere magis (quia vere calor redit oſſibus) illæ
Ore omnes verſæ in Zephyrum, ſtant rupibus altis
Exceptantque leves auras: & ſæpe ſine ullis
Conjugiis vento gravidæ (mirabile dictu)
Saxa per, & ſcopulos, & depreſſas convalles
Diffugiunt, non Eure tuos neque Solis ad ortus:
In Boream Caurumq; aut unde nigerrimus auſter
Naſcitur, & pluvio contriſtat frigore cælum.

Sometimes Horſes and Mares admit copulation at two year old, but thoſe Foales never prove excellent, but at three year old or thirty moneths, they ſuffer conjunction ſafely and with profit, becauſe they ceaſe to loſe their teeth. They continue in their generation, bearing every ſecond year, the male untill he be thirty year old, and the female as long as ſhe liveth; but the male engendereth yearly: And it is reported of a Horſe in *Opus*, that covered a Mare after he was forty year old, being only holp up and down from the Mare.

Pliny.

A hiſtory of a ſtallion to his own dam.

Pliny, *Oppianus*, *Ælianus*, and *Ariſtotle* do confidently affirm, that when the King of *Scythia* had all his generous breed of Horſes deſtroyed by a peſtilence (except one of his beſt Mares and a Stallion which was a Foale of that Mares) being deſirous to continue the breed, cauſed his Horſekeeper to put the Son and the Mother together, but the Horſe refuſed copulation with his own Parent. Afterward the Horſe-keeper covered the Mare with artificial skins, and likewiſe dreſſed the Horſe in ſuch manner, as one could not know the other, whereupon being brought together the ſecond time, the Stallion covered his own Mother: Afterward the Horſe-keeper diſcovered them, the one to the other, whereby they knew the fraud, and grew guilty in themſelves of inceſtuous commixtion: Whereupon they took no other revenge upon themſelves, but ran to the top of an high rock, and there ſucceſſively threw down themſelves, one after another, ſo ending their miſerable days, and preventing their Maſters hopes; to teach all mankinde that they ought not to ſeek to thrive by ſins againſt nature: the like is before rehearſed of a male Camel.

The very like ſtory is reported of a Horſe in the coaſts of *Rea*, yet this is not held to be general: for beaſts (as *Ariſtotle* ſaith) do promiſcuouſly cover one another; the Father the Daughter, the Son the Mother, the Brother the Siſter, and this maketh them to be perfect beaſts; and the ſtories before recited may be trne, yet are they extraordinary: otherwiſe the common rule of *Ovid* remaineth true, That it is not a filthy thing for beaſts to obſerve no degrees of nature.

——— *Coeunt animalia nullo*
Cætera delectu, nec habetur turpe juvenca
Ferre patrem tergo, fit equo ſua filia conjux.

The beſt time of the year for the joyning of Horſes and Mares for copulation, is from the vernall æquinoctial to the Summer ſolſtice, becauſe then the Colts which are ſoaled in due time, have the green herbs and all the warm weather for the ſuccour of their infancy: and if the Mare (after ſhe have been once covered) refuſe the male, let her reſt ten days, and then bring her to the male again; if ſhe refuſe the ſecond time, you may take it for granted, that ſhe is filled already. Wherfore ſeeing it is known certainly that a Mare goeth twelve moneths with young, it is an eaſie matter ſo to order the time of her copulation, that her foale may alwayes be delivered in a warm and ſeaſonable time of the year; for which cauſe there is an invention for ſtirring up of the luſt both in the male and female: the *Hymenæan* ſhepherds, by the ſweetneſs of ſongs upon their pipes, ſtirred up their Horſes and Mares to copulation, but the more aſſured way is, to follow the direction of *Columella* and *Abſyrtus*, to provoke them by natural means, like as Buls and Kine.

The means to procure Horſes to copulation.

And firſt of all for the male, give him the tail of a Hare burned, mingled with wine, and anoint therewithal his ſtones and genital member, and ſo ſhall the dull Stallion be more prone to venery; alſo there is a kind of *Satyrium*, which they give to them in drink, or the powder of a Horſes ſtones: likewiſe if the female refuſe, take ſhrimpes beaten ſoft with water (as thick as hone) therewithal touch the nature of the Mare in her purgation, and afterwards hold it to her noſe; or elſe take Hens dung mixed with Rozen and Turpentine, and anoint the ſecrets of the Mare, which ſhall ſo far increaſe her luſt, as it cureth the lothſomeneſs better then the ſhrimps, and increaſeth luſt. But you muſt regard, that no lean and ill favoured Mare be anointed, becauſe the Horſe is quickly wearyed from his luſt, and ſo delighteth only to be tickled therewith without doing any thing.

Other again do firſt of all bring ſome vulgar Horſe to the Mare, who provoketh and ſtirreth her to luſt, and when he is neer the very fact of filling her, they lead her away to a more generous Stallion, to be covered by him: And ſo if none of theſe means do prevail with her, they do rub her ſecrets with a Nettle, and that cauſeth her to ſuffer the Horſe to enter.

To ingender a male or female

Democritus alſo ſaith that it is in our power to cauſe our Horſes to bring forth males or females; for if we ſuffer them to couple when the North winde bloweth, or the third day before the full Moon, or bind his left ſtone, he ſhall get a male; but if when the South winde bloweth, or three days after the full Moon, or bind the right ſtone of the Horſe, it will prove a female.

Alſo if at the time of copulation, the Horſe leap off from the Mare on the right ſide, it is a token it will be a male, but if on the left ſide, it will be a female. Carnal copulation is moſt acceptable to Horſes, and leſſe grievous unto them then to Neat, for there is no kind (man only excepted) that is ſo venereous and nimble in generation as is a Horſe or Mare.

The males know their females with whom they live, although they have been but a few days together; and if ſtrange females fall into their company, they expell them away by biting, feeding ſingle and alone with their female by themſelves; but if any male or other ſtone Horſe come within their walke, then preſently they make force at him; if their female ſtir from them, they reſtrain her by biting: and in this time of their rage, they neither regard the rider, nor their adverſary, nor the bridle, nor cruell ſtripes, nor ſteep hils, nor rocks, nor caves of the earth, if they winde the amorous ſavour of their fellowes; according to the ſaying of *Virgil* in theſe Verſes;

Nonne vides, ut tota tremor pertentet equorum
Corpora, ſi tantum notas odor attulit auras?
Ac neque eos jam frena virum, nec verbera ſæva,
Non ſcopuli, rupeſq; cavæ, atque objecta retardant
Flumina, correptos unda torquentia montes.

It hath been alſo received,that a barren Mare ſhall conceive if you take a bunch of leeks bruiſed ſmal and put into a cup of Wine and twelve *French* flies called *Cantharides* in water, put them two dayes together into the genital of a Mare, like a Glyſter, and afterwards put her to a Horſe anointing her ſecrets with the ſaid ointment two ſeveral times, when the Horſe leaps down from her; or elſe they take Niter, Sparrows dung, Rozen, and Turpentine, thruſting the ſame into the Mares genital, whereby it hath been proved, that fecundity oftentimes followed.

Alſo ſome uſe Siler of the Mountains to procure conception in Mares and Cowes,and the true ſign of conception is, when their nature (that is) the fluent humour out of their ſecrets ceaſeth for a moneth, or two, or three: and *Pliny* ſaith, that when a Mare is filled, ſhe changeth her colour, and looketh more red, which is to be underſtood not of her hair, but of her ſkin, lips and eyes, her hair ſtanding more full then before. Then let them be ſeparated from the males, exempting them from moiſt places, cold and labour, for all theſe are enemies to her foaling, and cauſe abortment.

The ordering of a Mare with foal.
Varro.
Palladius.

Likewiſe they muſt not have too much meat nor too little, but only a temperate diet, and ſoft lodging, their better ordering is elegantly deſcribed in *Virgil*,by theſe Verſes.

Non illas gravibus quiſquam juga ducere plauſtris,
Non ſaltu ſuperare viam ſit paſſus,& acri
Carpere prata fuga: fluvioſque innare rapaces.
Saltibus in vacuis paſcant: & plena ſecundum
Flumina, muſcus ubi & viridiſſima gramine ripa,
Speluncæque tegant: & ſaxea procubet umbra.

Orus.

This is moſt certain, that if a Woman in her flowers, touch a Mare with foal (or ſometime do but ſee her) it cauſeth to caſt her foal, if that purgation be the firſt after her Virginity: In like manner if they ſmell of the ſnuffe of a Candle, or eat Buck-maſt or *Gentian*. The *Egyptians* when they will deſcribe a Woman ſuffering abortment, they picture a Mare treading upon a Wolf, for if a Mare kick at a Wolf, or tread where a Wolf hath troad, ſhe caſteth her foale: If an Aſſe cover a Mare which a Horſe hath formerly filled, there followeth abortment; but if a Horſe cover a Mare which an Aſſe hath formerly filled, there followeth no abortment, becauſe the Horſes ſeed is hotter then the Aſſes. If a Mare be ſick of abortment or foaling, *Polypody* mingled with warm water given her in a horn, is a preſent remedy.

Ariſtotle.
The time of their going with young

The *Scythians* when they perceive their Mares to be quick with foale, they ride upon them, holding opinion that thereby they caſt forth their foales with leſſe pain and difficulty. They carry their young one in their wombs, as hath been already ſaid, twelve moneths, but ſometimes they come at eleven moneths and ten dayes, and thoſe are commonly males, for the males are ſooner perfected in the womb then the females, and commonly the females are foaled at twelve moneths and ten days, and thoſe which tarry longer are unprofitable and not worth education. A Mare is moſt eaſily delivered of her young among other beaſts, and beareth moſt commonly but one at a time,yet it hath been ſeen that twins hath proceeded from her. At the time of her delivery,ſhe hath leſſe purgation of bloud, then ſo great a molde of body can afford,and when ſhe hath foaled, ſhe devoureth her ſeconds, and alſo a thing that cleaveth to her foales forehead, being a piece of black fleſh called *Hippomanes*,neither doth ſhe ſuffer her young one to ſuck until ſhe have eaten that,for by ſmelling thereunto, the young and old Horſes, or other of that kind would fall mad: and this thing have the impoſters of the world, uſed for a *Philtre* or amorous cup, to draw women to love them, *Virgil* ſpeaketh thus of it;

Ariſtotle.

Quæritur & naſcentis Equi de fronte revulſus
Et matris præreptus amor ———

And again;

Hinc demum Hippomanes vero quod nomine dicunt
Paſtores, lentum diſtillat ab inguine virus
Hippomanes, quod ſæpe malæ legere novercæ,
Miſcueruntque herbas & non innoxia verba.

This poiſon made into a Candle (*Anaxilaus* ſaith) in the burning thereof, there ſhall be a preſentation of many monſtrons Horſes-heads. There is very great poiſon contained in this *Hippomanes*,for the *Arcadian Phormis* made a Horſe of braſſe at *Olympia*, & put *Hippomanes* into the ſame,and if the Horſes at any time ſeen this Brazen Horſe, they were ſo far inraged with luſt, that no halters or bands could hold them, but breaking all, run and leaped upon the ſaid Brazen horſe, and although it wanted a tail, yet would they forſake any beautiful Mare, and run to cover it; neither when they came unto it, and found it by their heels to be ſounding and hard braſſe, would not they deſpair of copulation, but more and more, with noiſe of mouth, rage,and endevor of body,labour to leap upon the ſame, although the ſlippery braſſe gave them no admiſſion or ſtay of abode upon the back of that ſubſtance, neither could they be drawn from the ſaid Brazen Image, untill by the great ſtrength and cruell ſtripes of the riders they were forcibly driven away.

Some think this little piece of fleſh to cleave to the forehead, others to the loins, and many to the genitals; but howſoever it is an unſpeakable part of Gods providence, to make the Mares belly a ſepulchre for that poiſon; for if it ſhould remain in the males as in the females the whole race of Horſes would utterly periſh and be deſtroyed through rage of luſt, for which cauſe the keepers and breeders of Horſes do diligently obſerve the time of their Mares foaling, and inſtantly cut off the ſame from the Colt, reſerving it in the hoof of a Mare. to procure the Stallions to carnal copulation, and the Colt from which they cut this piece of fleſh, they ſacrificed it, for it is manifeſt ſaith *Ælianus*, that the Mare will never love that foal, from whence ſhe hath not eaten and conſumed this piece of fleſh.

And this poiſon is not only powerful in brute beaſts, but alſo in reaſonable men, for if at any time by chance or ignorantly they taſt hereof, they likewiſe fall to be ſo mad and præcipitate in luſt, raging both with geſtures and voice, that they caſt their luſtful eyes upon every kind of Women, attempting whereſoever they meet them to raviſh or ingender with him: and beſides becauſe of this oppreſſion of their minde, their body conſumeth and fadeth away: for three dayes after the Colt is foaled he can hardly touch the ground with his head. It is not good to touch them, for they are harmed by often handling, only it is profitable, that it be ſuffered with the dam in ſome warm and large ſtable, ſo as neither it be vexed with cold, nor in danger to be oppreſſed by the Mare through want of room. Alſo their hoofs muſt be looked unto, leſt their dung ſticking unto them burn them, afterward when it waxeth ſtronger, turn him out into the field with his dam, leſt the Mare over-mourn her ſelf for want of her foal, for ſuch beaſts love their young ones exceedingly.

After three dayes let the Mare be exerciſed and rid up and down, but with ſuch a pace as the foal may follow her, for that ſhall amend and encreaſe her milk. If the Colt have ſoft hoofs, it will make him run more ſpeedily upon the hard ground, or elſe lay little ſtones under their feet, for by ſuch means their hoofs are hardned, and if that prevail not, take Swines greaſe, and Brimſtone never burned, and the ſtalks of Garlick bruiſed and mingled all together, and therewithal anoint the hoofs.

The Mountains alſo are good for the breeding of Colts, for two cauſes, firſt for that in thoſe places their hoofs are hardened; and ſecondly by their continual aſcending and deſcending, their bodies are better prepared for induring of labour. And thus much may ſuffice for the educating and nurſing of foals.

For their weaning obſerve this rule, firſt ſeparate them from their dams twenty four hours together, in the next morning let them be admitted to ſuck their belly full, and then removed to be never more ſuckled: at five moneths old begin to teach them to eat bread or hay, and at a year old give them Barly and Bran, and at two years old, wean them utterly.

Of handling, taming, or breaking of Horſes.

THey which are appointed to break Horſes are called by the *Grecians*, *Eporedicæ*, *Hippodami*, and *Hippocomi*; the *Latins*, *Equiones*, *Arulatores*, and *Cociones*; in *Italian*, *lo Rozone*. *Abſyrtus* is of opinion that foals are to be uſed to hand, and to be begun to be tamed at 18 moneths old, not to be backed but only tyed by the head in a halter to a rack or manger, ſo that it may not be terrified for any extraordinary noiſe, for which cauſe they uſe them to brakes, but the beſt time is at three years old, as *Creſcentienſis* teacheth in many Chapters, wherefore when they begin to be handled, let him touch the rough parts of his body, as the mane and other places, wherein the Horſe taketh delight to be handled: neither let him be over ſevere and Tyrannous, and ſeek to overcome the beaſt by ſtripes, but as *Cicero* ſaith, by fair means, or by hunger and famine.

Some have uſed to handle them ſucking, and to hang up in their preſence bits and bridles, that ſo by the ſight and hearing the gingling thereof in their ears, they might grow more familiar. And when they came to hand to lay upon their backs a little boy flat on his belly; and afterward to make him ſit upon him formally, holding him by the head, and this they do at three year old, but commit him to no labour untill he be four year old, yet domeſtical and ſmall Horſes for ordinary uſe are tamed at two year old, and the beſt time for the effecting hereof, is in the moneth of *March*.

It is alſo good in riding of a young Horſe to light often, and to get up again, then let him bring him home and uſe him to the ſtable, the bottom whereof, is good to be paved with round ſtones, or elſe planks of Oak, ſtrewing litter upon it when he lyeth down, that ſo he may lie ſoft and ſtand hard. It is alſo good to be regarded, that the plankes be ſo laid, as the Urine may continually run off from them, having a little cloſe ditch to receive it, that ſo the Horſes feet may not be hurt thereby, and a good Maſter of Horſes muſt oftentimes go into his ſtable, that ſo he may obſerve the uſage of this beaſt. The manger alſo ought to be kept continually clean for the receiving of his provender, that ſo no filth or noiſome thing be mingled therewith; there ought alſo to be partitions in it, that ſo every beaſt may eat his own allowance, for greedy Horſes do not only ſpeedily raven up their own meat, but alſo rob their fellows. Others again have ſuch weak ſtomachs that they are offended with the breath of their fellows, and will not eat except they eat alone.

Vegetius.

The rack alſo is to be placed according to their ſtature, that ſo their throat may not be too much extended, by reaching high, nor their eyes or head troubled, becauſe it is placed too low. There ought alſo to be much light in the ſtable, leſt the beaſt accuſtomed to darkneſs, be offended at the Sun light, and wink over much, being not able to indure the beams when he is led abroad; but yet the ſtable muſt be warm and not hot; for although heat do preſerve fatneſs, yet it bringeth indigeſtion and hurteth a Horſes nature, therefore in the Winter time the ſtable muſt be ſo ordered, as the beaſt may not be offended or fall into diſeaſes by overmuch heat or ſuddain cold. In the Summer time let them lodge both night and day in the open air.

This alſo in ſtabling of your Horſes muſt be avoided, namely, the ſties of Swine; for the ſtink, the breath, the gruntling of Hogs, is abominable for Horſes, and nature hath framed no ſympathy or concord betwixt the noble and couragious ſpirit of a Horſe, and the beaſtly ſluggiſh condition of a Swine. Remove alſo far away from your Horſes ſtables all kinde of fowl, which were wont to haunt thoſe places to gather up the remnant grains of their provender, leaving behind them their little feathers, which if the Horſe lick up in his meat, ſtick in his throat, or elſe their excrements which procureth the looſeneſs of his belly.

Camerarius.

It muſt alſo be regarded, that the ſtable muſt be kept neat, ſweet, and clean, ſo as in abſence of the Horſe, it may not lie like a place for Swine. The inſtruments alſo, and implements thereof, ſuch as are the Horſe cloathes, the Curry-combs, the Mane-combs, Saddles and Bridles, be diſpoſed and hung up in order behind the Horſe, ſo as it may neither trouble him eating or lying, nor yet give him occaſion to gnaw, eat, and devour them to their own damage or hurt, for ſuch is the nature of ſome wanton Horſes, to pull aſunder and deſtroy whatſoever they can reach.

They are therefore oftentimes to be exerciſed and backed, and principally to be kept in a good diet, for want of food dejecteth the ſpirit of the nobleſt Horſe, and alſo maketh the mean Horſe to be of no uſe; but on the contrary a good diet doth not only make a mean Horſe to be ſerviceable, but alſo continue the worth and value of the beaſt: which thing Poets conſidered, when they fained that *Arion* the Horſe of *Neptune* and ſome others were made by *Ceres* the Goddeſs of Corn, which any mean witted man may interpret to ſignifie, that by abundance of provender the nature of Horſes was ſo far advanced above ordinary, that like the Sons of the Gods they perform incredible things: whether therefore they eat chaffe, or hay, or graſſe, or grain, according to the diverſities of Countries, let it be wholeſome, clean, freſh, and ſweet, without duſt, gravel, muſtineſs, or evill ſmell.

In the morning give them Barly or provender, a little at a time in diſtinct or ſeveral portions, twice or thrice one after another, ſo as he may chew and eke digeſt it throughly, otherwiſe if he raven it in, as he will do having much at a time, he rendreth it in his dung whole and not digeſted. About three hours after, he hath eaten his provender, give him a little of hay, and three hours after that, his dinners allowance of grain, as in the morning, and afterwards about two or three a clock hay again, and then ſome drink; laſt of all give him his allowance of provender for ſupper, with a bottle or two of hay, which ought to be more plentiful then the former ſervings: and yet theſe rules are not to be underſtood as though they might not be altered, for the times prefixed may be prevented if occaſion require. Their beſt provender is Oats and Barley, yet Barly ingendreth the thinner and better bloud, and therefore it is to be preferred, only the meaſure of the provender is left to the diſcretion of the Horſe-keeper, and there is no meat more wholeſome for a Horſe, then Barly and Chaffe, becauſe it will make him full of life, and alſo able to indure labour, yet not over fat.

In *England* in many places they give their Horſes bread made of Fitches, Beans, and Peaſe. When one is to make a journey on horſe-back, let him not give his Horſe too much provender the noon before, but ſo much the more hay, and bread ſteeped in wine, and alſo let him ſerve him ſooner at night then ordinary, that ſo the beaſt may take the more reſt. There be which refuſe to give Horſes wet provender or ſteeped bread, becauſe they conceive that it will breed in them loathſomeneſs of meat; but the truth is, a reaſonable Horſe-keeper preventeth that miſchief; and beſides, the meat of a Horſe is altogether ſo dry, that the beaſt himſelf is indangered to be ſick of that diſeaſe; and therefore it is as ſafe to give him moiſtened food ſometimes, as well as to give him bread mingled with ſalt.

Camerarius.

When a Horſe is weary or ſweateth, let him not drink nor eat provender, but after he is walked a little while, give him hay, firſt of all covering him with a large cloth, and remember, that hay is not to be caſt before a Horſe, as it is out of the reek, but firſt of all it muſt be pulled, and ſhaken betwixt the hands, for the avoiding of duſt and other filth. Reſtrain the Horſe as much as you may from eating the litter under his feet, for even the beſt meat ſo defiled is unwholeſome. It is alſo good ſometimes to ſuffer him to pick up his meat on the ground betwixt his forelegs, that will make his neck to grow thinner, leaner and more comely. Let his neck be faſt bound in the ſtable with a Leathern collar, and binde with a manicle his fore-leg to the hinder-leg on the contrary ſide, and ſo ſhall his be preſerved in more health, becauſe they cannot move out of their place but with difficulty.

Ruſſius.

Concerning the drink of Horſes, ſomething more is to be added in this place, and namely brackiſh and troubled water, ſuch as runneth ſoftly, as in great ponds, is fitteſt for Horſes, becauſe that water, being hot and thick nouriſheth better, but the ſwift Water is colder, and therefore more unwholeſome, but in hot times (as in Summer) the ſweet and clearer water is more convenient if cuſtome be not againſt it. And becauſe a Horſe (except he drink freely) can never be fat, let his mouth oftentimes be waſhed within with Salt and Wine, and that will make him eat and drink more liberally: and yet the running water is more wholeſome for Horſes, becauſe whatſoever is moveably fluent, is leſſe ſubject to poiſon then that which ſtandeth ſtill; but if a Horſe ſweat or be weary, it is not ſafe to let him drink any thing, except he firſt ſtale, for in ſuch caſes followeth diſtention. And it is better to turn or lead forth your Horſe to water, then to bring it unto them. And if at any time neceſſity cauſe this to be done, then let the Water be very clear and freſh.

His ſtable or lodging ought to be ordered, as neither it offend him by cold in Winter, nor yet through heat in Summer, for both theſe extremities are pernicious: and therefore when the weather is extream cold, then muſt the Horſes back and belly be covered with a cloth; and when on the contrary it exceedeth in heat, then muſt his litter be taken away. Alſo in heat he muſt be covered with linnen to avoid flies, and in cold with woollen to help nature: likewiſe it is good toward night to pick, cleanſe, and open his hoofs, with ſome artificial inſtrument, and to thruſt into the hollow Cow-dung, or in defect thereof Horſe-dung with a little ſtraw, that ſo he may not ſhake it out again: but this is not good to be done every day, but rather every ſecond day, and it is good to mingle therewith ſewet or greaſe, or elſe a new laid Egge with warm aſhes. In ancient time they uſed not to ſhooe their Horſes with iron, untill the dayes of *Catullus*, who remembreth this cuſtome, ſaying.

Ferream ut ſoleam tenaci in voragine mula:

So that it ſeemeth that this deviſe was firſt of all invented for Mules. The Horſe-ſhooes ought to be round like his feet, and not heavie, leſt the Horſes nimbleneſs be thereby hindered; and great care muſt be had in nailing or ſetting them on, leſt the tender and fleſhie part of the foot be thereby pierced.

Pollux. Another charge of a Horſe-keeper is to keep his Horſes lips ſoft, tender, and gentle, ſo as he may more ſenſibly feel his bit: and for this cauſe let him often rub them with his hands and warm water, and if need require with oil alſo: and in handling of a Horſe this muſt be obſerved for a general rule, That neither he come to the Horſe right before his face, nor behind his tail, becauſe both theſe are dangerous to the rider; leſt by his heels or mouth he harme him, but on his ſide he may ſafely ſet upon him or handle his Horſe, and when he leadeth him, he muſt likewiſe go on his ſide.

Likewiſe good and painful dreſſing of Horſes is no ſmall means to retain him in ſound and perfect health; and therefore he muſt often be touched with the Curry-comb, and afterward with a handful of ſtraw, ſo as the hand may follow the ſtroke to lay the hair ſmooth: and their faſhion was in old time to bruſh over their Horſes with a little linnen inſtrument made like a ſword, whereby they excuſſe all duſt from the beaſt: and herein it is wiſdom to begin at the head and mane, and ſo to deſcend to other parts, and to touch the Horſes back gently: he may waſh the head and mane becauſe it being ſo bony, it is dangerous leſt the comb offend and grieve the beaſt, except it be layed on very tenderly, but it is not good to waſh the legs, becauſe dayly waſhing ſoftneth the hoof by ſliding down of the water, and therefore it is ſufficient only to ſtroke them down with his hands.

Camerarius. The neather part alſo of the belly is not to be kept over clean, for the more it is cleanſed with water, the more is the Horſe pained therein: when a Horſe is dreſſed, it is good to bring him out of the ſtable, that ſo in the open air he may be tyed in a longer halter, and ſeem to be at liberty, whereby he ſhall be brought to more cleanneſs and tractable gentleneſs, ſtanding upon ſome ſmooth ſtones, till all the duſt and looſe hairs both by the Comb and Bruſh be driven away, and in the mean time the ſtable be emptied, and this is to be performed before the Horſes watering. You muſt alſo regard the skin wherein the Horſes yard runneth be kept clean, for if it be ſtopped it hindereth urine, and maketh the Horſe ſick, and when your Horſe is in dreſſing, let him have before him no manner of meat either of hay or provender.

Let them be led to the Water twice a day, and waſh therein both legs and belly, except in the Winter time, wherein it is not ſafe to wet the Beaſt ſo often: and if there be in them any appearance of ſickneſs and infirmity, or if you have any purpoſe to give unto them any kind of medicine, then muſt you altogether forbear to water them. *Vegetius.* Some uſe to waſh their Horſes legs with warm wine-lees to refreſh their joints and ſinews after hard journies, which cuſtome ſeemeth very allowable: other uſe in ſtead thereof warme diſh-water out of the kitchin, and the backes they waſh with cold water and ſalt.

Underneath their tails, and near their yards, you ſhall find them in the Summer time to be much annoyed with flies, and therefore it is a needful part of the Horſe-keepers watchfulneſs to look in thoſe places and drive them away, for ſo his charge will take the better reſt.

And evermore there muſt be nouriſhed a mutual benevolence betwixt the Horſe and Horſe-keeper, ſo as the Beaſt may delight in the preſence and perſon of his attendant; and for this cauſe he may be kept from hunger, wet litter, cold in the Winter, and flies in the Summer: and furthermore a diligent caution muſt be had, that the Beaſt be not provoked through overmuch ſeverity, for if the Horſe by his keepers violence be often driven to his rack and manger to avoid ſtripes, either he hurteth his ſhoulders or legs by his own weight or force, or elſe groweth into a trembling at the preſence of a man, and ſo never yeeldeth any loving obedience; or elſe falleth into ſome furious and unreclaimable evill qualities. The Maſter therefore ought often to enter into his ſtable, and take a view of his Horſes uſage, whereby the Beaſt will quickly take notice of him, eſpecially if he have but one, for it is a great folly and piece of ill husbandry to truſt Servants and not to overſee them. *Cato* was wont to ſay, *Frons occipitio prior*: that is, as the forehead is before the nape of the neck; meaning thereby that nature hath ſet him higheſt and formoſt, which ſhould not hide himſelf, but take his place upon him and diſcharge it, for it is not ſafe or any part of wiſdome, to ſee by another mans eyes, or work altogether by Deputies.

Men muſt alſo be affraid of lending their Horſes, for the *Germans* have a pretty proverb, that they will not truſt their wives at great feaſts out of their ſight, for commonly they learn ſome evill faſhion or other more then they had before; and ſo much more Horſes (after lending) return home again to their Maſters with alteration of ſtrength and quality.

Of adorning and furniſhing Horſes.

The furniture of a Horſe and his trimming.

I Cannot approve them that cut off their Horſes tail or foretop; one received beginning from an ignorant perſwaſion of increaſing the ſtrength of the Horſes back, and the other from an imagined comlineſs, by trimming it with ribben or ſome deviſed knot, or that it hindred the Horſes ſight. In the firſt the Beaſt is wronged and deprived of his help againſt the flies, and decency of his hinder parts; and in the ſecond nature accuſed, for not adorning the Horſes forehead with more gaudy and variable coloured hairs, and providing a bunch of hair to weaken his eyes; but neither of theſe are tolerable, for a wiſe man once to imagine, and therefore I will not ſpend any more time to confute this vain adorning of Horſes.

Let the horſe-keeper take heed that he harm not the Beaſt when he putteth on his Bridle, for a little negligence quickly bringeth a great offence, by touching, wringing, and oppreſſing any tender part in the Horſes head or mouth. He muſt alway put on his Bridle on the left ſide, and if the Horſe of his own accord do not open his mouth to the bit, then muſt he gently open his mouth with one finger, and ſo put it upon him; and if by that means he open not his mouth, then preſſe or wring his lip upon his great canine tooth, which thing cauſeth any Horſe to open his mouth.

Alſo it muſt be regarded that the Horſe in leading be not drawn after you, for ſo will he be made hard headed, unwilling to follow. Again his Cheeks muſt not be pinched by the Bridle, leſt the skin grow ſenſeleſs; and alſo it muſt not hang long or looſe in his mouth, for ſo he will be alway biting his bit, and give leſſe obedience to his Rider.

Camerarius writeth that he hath ſeen ſome put Salt upon their bits, whereof the Horſe licking or taſting, became more willing to take it into his mouth; and for the better performance hereof, it is neceſſary to obſerve by often triall, what kind or faſhioned bit beſt beſeemeth and fitteth the Horſes mouth, and finding it, keep him thereunto continually: and when it is put on, neither wring his Cheeks, or let him rowl it betwixt his teeth.

The Saddle alſo muſt be ſo faſtened to his back, as that it may not turn or rowl upon the ſame; wherefore he which layeth it thereupon, muſt come on the left ſide, and gently without violence or noiſe, ſet it upon the Beaſt; ſo that neither girths, peytril, ſturrops, trappings, or crupyard, fall betwixt the Back and Saddle, neither covering therewith the Horſes wither, nor yet touching his hips or loins.

Firſt of all let the peytrill on the breaſt be buckled, then the girths in order neer the forelegs, not upon the belly, for upon the belly they will be ſliding off, and that is againſt the rules of riding; for *Bene equitant qui bene cingunt*; that is to ſay, they ride well which bind faſt: and this ought to be done in an open place, where both the Rider and the Horſe may have more liberty: wherewithal a generous and great ſtomached Beaſt is much delighted: neither muſt he be tyed or drawn too hard till the Rider be ſeated. Look alſo often to the girths, that they wring not the ſides, or pull off the skin.

Of Riding and ſitting on Horſeback.

WHen you are to get up and mount on Horſeback, take hold on the lower part of the Bridle neer the Bit, with the left hand, with ſuch a diſtance as may both keep him from riſing, nor give him offence, if you take advantage to get into the Saddle, and with the right hand take the rains on the top of the ſhoulders and the mane, and ſo hold them, as you give no check to the Horſes mouth in mounting: there are other rules for this among Riders, wherewithal I will not meddle, only it is good to uſe your Horſe to backing both ſadled and bare, as well from the plain ground, as from blocks, and riſings invented for the eaſe of man.

Therefore before you go to Horſeback, firſt ſtroke your Horſe, and make much of him with gentle words, or other convenient ſound which the Horſe underſtandeth, and ſo will he ſtand more willingly till you be on his back: for this thing there is in *Plutarch* an excellent ſtory of *Alexander* the great, when *Bucephalus* was firſt of all preſented to his Father King *Philip*, by a *Theſſalian*, called *Philonix*: For when the King was perſwaded to go forth into the field to try the qualities of this beaſt, which was ſo highly commended for rare parts, and valued at ſuch a price, as none but a King might yeeld for him, then the Horſe began to ſnort, and kick, and to admit no man to come unto him within the length of the rains, but kept aloſt like a wilde and untamed Horſe; yeelding no obedience to voice or other ſignes of the Riders: whereat the King fell exceeding angry, and bid them lead away the unruly and untamed Horſe: *Alexander* being preſent, complained of the ignorance and fearfulneſs of the Riders, and that they were the cauſe why ſuch a generous and gallant beaſt was no better manned. At the hearing whereof, King *Philip* ſmiled, and yet ſo carryed himſelf as though he had not heard the words of his Son, untill *Alexander* repeated his ſaying the ſecond time; whereunto his Father replyed, What (ſir Boy) will you make your ſelf more skilfull then theſe old cunning Riders? will you lay on them an imputation of fear and ignorance? Yes, ſaid *Alexander*, I will adventure to handle this Horſe better then any other: Yea but (ſaid *Philip*) what puniſhment then wilt thou undergo if thou fail and perform not what thou haſt ſaid? What puniſhment? (ſaid *Alexander*) why I will give them the price of the Horſe: Whereat the King laughed and ſtruck up the wager, and ſo had *Alexander* the rains of the Horſe delivered to him, who preſently turned him about againſt the Sun-riſing, that ſo he might not be terrified with the ſhadow of the beholders, and ſo led him up and down ſoftly two or three turns, and at laſt wan the Horſe to hand, which he gently ſtroked and applauded: and when he had gotten perfect intelligence and underſtanding of the Horſes ſtomach, he caſt off his cloak, and addreſſed himſelf to mount on his back, ſo holding the rains and bearing his hand and whole body as he did not check or pinch the Horſes mouth: ſo he inclined him firſt of all to lay away his ſtirred and angry minde, and afterward paced him to and fro gently, which the Horſe endured: At laſt he put Spurs unto him, and made him run, leap, carreer, and curvet, to the terrour, at the firſt, of all the beholders, and afterward to the ſingular admiration and praiſe of himſelf: which cauſed the company or train to applaude this fact, and forced the old man his Father, to ſend forth tears for joy; and when *Alexander* deſcended from his Horſe, he could not contain himſelf, but he muſt needs go kiſſe and embrace ſuch a Son; whereby it is manifeſt, that when a Man is to ride on a generous ſpirited Horſe, he ſhall bend him to endure the burthen by gentleneſs and familiarity, ſo as the Beaſt may ſtill know and love his Rider.

Likewiſe when the Maſter mounteth, it is requiſite that the ſervant be on the other ſide of the Horſe to hold the ſtirrop, for ſo ſhall he get up more ſurely, and ſet himſelf more ſoftly. Some Horſes are taught to bend their knees to take up their aged and ſick Maſters, that ſo they may be the leſſe offended in aſcending to their backs, and this cuſtom (ſaith *Pollux*) did firſt of all begin among the *Perſians*. *Xenophon.*

The ancient *Germans* were ſo ſingularly exerciſed in Horſemanſhip, that ſtanding upon the ground and holding a Spear or Lance in their hands, they mounted without other ſtirrop or vantage upon their Horſes backs; and not only when they were ordinary attired in common garments, but then alſo when they were armed, (though *Julius Caſar* take from them all glory of Chivalry) yet now adayes the invention of Saddles with ſtirrops, is moſt eaſie both for Horſe and Horſemen, being then better the *Pelethronian* invention time.

When the Rider is in his Saddle, and is well ſeated, he muſt not ſit as in a Chair or Chariot, bended together, but rather keep his body upright, only bowing outward his knees, for ſo ſhall he be better able to defend himſelf, or offend his adverſary; for he muſt rather ſeem to ſtand then to ſit on horſeback.

The Rider or Maſter of Horſes muſt ſpare his Horſe in the heat of Summer, (about Dog-dayes) and in the cold of Winter, and never at any time to Ride paſt the twylight of the evening. The Horſe being empty, is more prone to make water then being full, and therefore muſt not be hindered in that deſire: and alway after his ſtaling, ride him not too faſt, untill his nerves which were extended to let forth the Urine be contracted, ſetled and drawn together again. *Ruſſius.*

If in the Winter time a Horſe be to paſſe over a foord of water (which will aſcend up above his belly) let him ſtale firſt, leſt he fall into the Strangury, and alſo be a little eaſed of his load. *Abſyrtus.*

There is no beaſt that rejoyceth more in celerity and ſwiftneſs then a Horſe, becauſe ſo ſoon as he is turned out of hand, he inſtantly runneth away ſpeedily, and doth walke ſoftly as at other times: and this is a pleaſure to them, except when they are provoked above their deſires: and the counſell of *Xenophon* when you are to Ride faſt or for a wager, is this, bend the upper part of the body forward, ſtretching out the hand which carryeth the rains; now drawing it in, and then letting it at length again; and therefore it is good in ſuch caſes to uſe ſhort rains, and if the Horſe in his courſe ſtretch forth the rains of his own accord, then is it a ſign of an unskilful Rider, or of a weak and tireable Horſe. Add not Spurs but in great neceſſity, but guide and provoke him with voice and riding rod, for quick and good metled Horſes are by the Spur made fierce; and gentle natured Beaſts made ſluggards like Aſſes, which by often beating ſeem to neglect and deſpiſe ſtripes. *Pollux.*

You muſt alſo ſhorten and lengthen your journies and times of Ridings, ſo as they may neither be certain to the Beaſt, nor yet over long; and ſpecially after a long journey, take a ſhorter if you Ride upon the ſame Horſe.

Firſt of all let him be uſed to plain and equal wayes, and if he be to leap or go up a hill, it was a precept of the old *Grecians*, that then the Rider muſt lay the rains in his neck.

If the Horſe at any time be either more fierce or ſluggiſh then ordinary, he may be holp by theſe means. Wildeneſs and fierceneſs of Horſes, is like to anger and rage in men; and therefore occaſions of offence in word and deed muſt be avoided: therefore as ſoon as the Rider is upon his back, let him reſt a little before he ſet forward, and then alſo let the Horſe move but his own pace: for as men are offended with ſuddain violence and imperious geſtures, ſo alſo are Horſes: but if the Horſe being ſtirred to his race, be more forward and hot then ordinary, he muſt be gently reſtrained by the bridle; and it is better to qualifie their rage in long and ſpacious direct journies, then in often windings and turnings.

But if any man be ſo ſimple as to think that by length of journey or race, his Horſe will be more meek, becauſe he may be tyred, he deceiveth himſelf; for as rage in man inventeth hurtfull revenge, and turneth into malice by continuance, ſo alſo in Horſes it procureth a headlong ruine (if it be not prevented) both to Horſe and Rider: and therefore if your Horſe be of a generous ſpirit, never provoke him to ferocity, for as they are wilde and fierce, ſo are they wicked and harmful.

It is alſo better to uſe light and gentle bridles then heavy and ſharp, except the Rider can by his art ſo frame the ſharp as the gentle bit: and alſo the Rider muſt ſo frame himſelf in his art of riding, that in the commotion of his Horſe, he may not touch any member or part of him, but only his back whereupon he ſitteth.

He muſt alſo learn his different terms, to incite and ſtir up his Horſe to run forward, which the *Grecians* call *Clogmos*, or elſe to reſtrain him and keep him in, which they call *Poppyſmus*, the one cloſeth the lips, and the other toucheth the palat.

If the Horſe be fearful of any thing, you muſt ſhew the thing to him plainly, that ſo by cuſtom he may learn not to be skittiſh, and let him ſmell thereunto, till he learn not to be afraid; but if men beat them, they do but fear them more; for while they are ſo ill handled, they ſuſpect that the things whereof they are afraid are the cauſe of their ſtripes. In like ſort when they go on the one ſide, or turn back again, it is good to uſe the Spurs, becauſe they encreaſe their terrour and perverſeneſs; and therefore as peaceable encouragement and friendly perſwaſion is the beſt means to perſwade a man in his fear, the like courſe muſt be taken with a Horſe, that ſo he may go ſtraight on without doubt or trembling; and learn not to account any thing horrible to his nature.

When a Horſe is ſo tyred and wearied in his journey that a man would judge him unfit for any labour, take off his ſaddle and burthen, and put him into ſome ſtable or green field, where he may tumble and rowle over and over, and he ſhall eaſily recover. In ancient time, if Horſes were to be travelled through ſnow, they made them boots of ſackcloth to wear in their journey.

Of the diſpoſition of Horſes *in general.*

AMong the flocks or heards of Horſes, there is not a Captain or leader going before or governing the reſidue, as among Oxen, Sheep, and Elephants; becauſe the nature of theſe is more inſtable and moveable it being a ſwift and high ſpirited Beaſt, and therefore hath received a body furniſhed with ſuch members as are apt to be ſwayed by ſuch ſpirit: for *Lactantius* truly obſerveth in them a deſire of glory, becauſe after victory, the conquerours exſult and rejoyce, but the conquered or overcome, mourn and hang down their heads; which thing *Virgil* expreſſeth in this Verſe;

Inſultare ſolo, & greſſus glomerare ſuperbos.

But more plainly *Ovid*, the triumph of the conquering Horſe; ſaying,

Hic generoſus honos & gloria major equorum;
Nam capiunt animis palmam, gaudentque triumpho,
Seu ſeptem ſpatiis circo meruere coronam.
Nonne vides victor quanto ſublimius altum
Attollat caput, & vulgi ſe venditet aura,
Celſave cum cæſo decoratur terga leone,
Quam tumidus, quantoque venit ſpectabilis actu;
Compeſcatque ſolum, generoſo concita pulſu,
Ungula ſub ſpoliis graviter redeuntis opimis.

And *Pliny* affirmeth that when they are joyned together in Chariots, they underſtand their encouragements of glory and commendation: and therefore there is not any beaſt of ſo high a ſtomach as a Horſe.

Of the natural diſpoſition of Horſes.

THey love wet places and bathes, for which cauſe they are called *Philolutra*, they alſo love muſick, as hath been already declared, and the whole hoaſt of Army or the *Sybarites*, taught their Horſes to dance at the ſound of a Pipe: and *Cœlius* writeth hereof in this manner, So great (ſaith he) was the riot and wantonneſs of the *Sybarites*, that at their common feaſts they brought in Horſes to dance before men; which thing being known by the *Crotoniatæ*, they offered them War, and agreed upon the fight: whereupon in the day of battle, the *Crotoniats* brought with them divers Pipers and Minſtrils, who upon a ſign given to them, ſounded their inſtruments, whereupon the *Sybaritan* Horſes came running and dancing among their adverſaries, and ſo betrayed themſelves and their Riders to the enemy.

The like ſtory is reported by *Atheneus*, of the people called *Cardiani*; for they alſo taught their Horſes to dance upon their hinder legs, and to work many ſtrange feats with their fore-feet, at the hearing of certain meaſures played upon Pipes.

A Hiſtory.

The *Biſaltans* waged War againſt the *Cardians*; and they had to their Captain a certain man called *Onaris*, who when he was a Boy was ſold to *Cardia*, and there he ſerved with a Barber: In the time of his ſervice he oftentimes heard, that the Oracle had foretold, how the *Cardians* ſhould be overcome by the *Biſaltans*, and therefore he to prevent the worſt, run away from his Maſter, and came home ſafe to *Biſalta* his own Countrey, and was by his Countrey-men created Captain of all their warlike forces: he underſtanding what tricks the *Cardians* taught their Horſes in dancing, brought out of *Cardia* certain Pipes, and taught divers *Biſaltans* to ſound and play the meaſures upon them, which the *Cardians* taught their Horſes: whereupon when as they joyned battle with the *Cardian* Horſes (for all the force of the *Cardians* lay in their Horſes) he commanded his Piping *Biſaltans* to ſound their muſick, which the Horſes underſtood, who preſently ſtood up upon their hinder-legs, and would not fight any more, or go any further, ſo as they were overthrown by their adverſaries.

Solinus.

They have alſo a ſingular pleaſure in publick ſpectacles, and therefore have been obſerved to be provoked not only by pipes or ſuch inſtrumentall muſick, but alſo by Songs or vocall harmony, by variety of colours, and by burning Torches. *Dion* alſo writeth that he ſaw a Horſe taught to know and to do reverence to a King.

And *Textor* affirmeth that he ſaw a Horſe at *Paris* at the trumphs, Tilt, and Turnaments made for the mariage of *Lewis* the twelfth to *Mary*, a Lady of *Britain*, which being commanded by his Rider to ſalute the Queen, preſently did bend both his knees unto her, and then roſe again running away as faſt as a bird could flie.

Homer ſeemeth alſo to affirm that there are in Horſes divine qualities, underſtanding things to come, for being tyed to their mangers they mourned for the death of *Patroclus*, and alſo fore ſhewed *Achilles* what ſhould happen unto him: for which cauſe *Pliny* ſaith of them, that they lament their loſt Maſters with tears, and foreknow battles; *Virgil* writeth thus of the Horſe of *Pallas*;

Poſt bellator equus, poſitis inſignibus, Æthon
It lachrymans, guttiſque humectat grandibus ora.

Accurſius affirmeth, that *Cæſar* three dayes before he died, found his ambling Nag weeping in the ſtable, which was a token of his enſuing death, which thing I ſhould not believe, except *Tranquillus* in the life of *Cæſar*, had related the ſame thing, and he addeth moreover, that the Horſes which were conſecrated to *Mars* for paſſing over *Rubicon*, being let to run wilde abroad without their Maſters, becauſe no man might meddle with the Horſes of the Gods, were found to weep aboundantly, and to abſtain from all meat. Whereof there could be no cauſe given, but the love of their former Maſters. It is alſo reported of *Rodatus*, a Captain to *Charles* the great, who after the death of the Emperour was made a Monk, his Horſe would never ſuffer any to come on his back except his Maſter, who likewiſe had abſtained from riding many years: But it happened that certain *Pagans* brake in upon the ſaid Monaſtery, whereupon poor *Rodatus* went unto his Horſe, who after many years diſcontinuance, willingly took up his aged Maſter upon his back, aud ſo carryed him untill he triumphed over his adverſaries; and no marvel, for Dogs and Horſes are moſt loving to men, if they be brought up carefully, and liberally, they recompenſe the good turns of their benefactors. It is obſerved in the nature of Horſes, that they ſeldom hurt a man or childe, except in their madneſs, yet are there malicious Horſes as well as men. It is reported by *Pliny* and *Tzetzes*, that when a foal hath loſt his dam, the reſidue of the Mares which give ſuck, bring it up, and that they are ſeldom found at variance, except the barren Mares pull away the foals from the natural dams. For there is no creature ſo loving to their young ones, as are Mares, neither any ſo deſirous of young; for which cauſe, when they are barren themſelves, they labour to ſteal them away from others.

Ariſtotle.

They which were wont to races, would perform it upon Mares newly delivered of foals they tyed up the foals at home, and led the Mares to the beginning of the race, making the end thereof at the foals ſtable; and ſo putting the Beaſt forward, ſhe runneth homewards more ſpeedily for the remembrance of her foal.

Of the fear of Horſes, *and their enemies in nature.*

HOrſes are afraid of Elephants in battle, and likewiſe of a Camel; for which cauſe when *Cyrus* fought againſt *Crœſus*, he overthrew his Horſe by the ſight of Camels, for a Horſe cannot abide to look upon a Camel. If a Horſe tread in the foot-path of a Wolfe, he preſently falleth to be aſtoniſhed: Likewiſe if two or more drawing a Chariot, come into the place where a Wolf hath trod, they ſtand ſo ſtill as if the Chariot and they were frozen to the earth, ſaith *Ælianus* and *Pliny*. *Æſculapius* alſo affirmeth the ſame thing of a Horſe treading in a Bears footſteps, and aſſigneth the reaſon to be in ſome ſecret, betwixt the feet of both Beaſts.

Orus. We have ſhewed already, that if a Mare ſtrike a Wolf, or tread in the foot-ſteps thereof, ſhe preſently caſteth her Foal; and therefore the *Egyptians*, when they ſignifie a Woman ſuffering abortment, *Oppianus.* picture a Mare kicking a Wolf. The *Dextanian* Horſes being not Gelded, dare fight with Lions, but being gelded, like all other Horſes, they are ſo afraid of Lions, that no ſtripes, or ſpurs, is able to bring them in their preſence, the *Caropian* Horſes excepted.

Cardan. All kinde of Swine are enemies to Horſes; the Eſtridge alſo is ſo feared of a Horſe, that the Horſe dares not appear in his preſence. The like difference alſo is betwixt a Horſe and a Bear There is a Bird which is called *Anclorus*, which neyeth like a Horſe, flying about, the Horſe doth many times drive it away, but becauſe it is ſomewhat blind, and cannot ſee perfectly, therefore the Horſe doth oftentimes catch it, and devour it, hating his own voice in a creature ſo unlike himſelf.

It is reported by *Ariſtotle*, that the Buſtard loveth a Horſe exceedingly, for ſeeing other Beaſts *Ælianus.* feeding in the Paſtures, deſpiſeth and abhorreth them, but as ſoon as ever it ſeeth a Horſe, it flyeth unto him for joy, although the Horſe run away from it; and therefore the *Egyptians*, when they ſee a weak man driving away a ſtronger, they picture a Buſtard flying to a Horſe. Horſes are alſo taught to leap, if a Man take him by the rains, and go over the ditch before him, holding him faſt, and pulling him to him. But if he be unwilling, then let another come behind him and ſtrike him with a whip, or with a rod, ſo will he leap over without delay; and thus when you have uſed him to leap empty, likewiſe accuſtome him loaded. Firſt over ſmaller, and then over greater hedges. But at the beginning let him leap in ſoft ground, and being well practiſed in harder; and when he beginneth to leap, let the Rider put ſpurs unto him, for ſo will he performe his leap with more ſafety to himſelf and the Rider; and by cuſtome he may leap and run as well down the hill as up hill; and therefore the *Perſians*, and *Nodriſians* uſe and accuſtome their Horſes to run both down hill, and up hill.

Theſe Epithets following, do ſerve and expreſſe the nature of Horſes; full of ſtomach, generous, magnanimous, ſtrong, ardent, ſharp, covetous, fierce, bolde, threatning, terrible, foaming; ſuch were the Horſes of *Acarnania*, *Argos*, *Mycena*, *Aria*, *Elis*, *Epid*, *Spain*, *Theſſali*, *Farſalis*, of which Countrey was *Bucephalus*, the Horſe of *Alexander*. *Ballaſia*, a Province addicted to *Mahomet*, hath many of theſe excellent, great and ſwift Horſes, whoſe hoofs are ſo hard, that they need no iron ſhooes, although they travel over rocks and mountains.

The *Arabians* alſo have ſuch Horſes, and in the Kingdom of *Senega*, they have no breed of Horſes at all, by reaſon of the heat of their Countrey, which doth not only burn up all paſture, but alſo cauſe Horſes to fall into the Strangury; for which cauſe they do buy Horſes very dear, uſing in ſtead of Hay, the ſtalkes of Peaſe dryed and cut aſunder, and Millet ſeed in ſtead of Oats, wherewithal they grow exceeding fat; and the love of that people is ſo great to Horſes, that they give for a Horſe furniſhed nine bond-ſlaves, or if it pleaſe them well, fourteen; but when they have bought their Horſes, they ſend for Witches, and obſerve therein this ceremony.

They make a burning fire with ſtickes, putting therein certain fuming herbs, afterwards they take the Horſe by the bridle, and ſet him over the ſmoaking fire, anointing him with a very thin ointment, muttering ſecretly certain charmes, and afterwards hanging other charmes about their Neck in a red skin, ſhut them up cloſe for fifteen dayes together: then did they bring them forth, affirming that by this means they are made more valiant and couragious in war.

The love and knowledge of Horſes *to men.*

ANd to this diſcourſe of Horſes belongeth their nature, either of loving or killing men. Of the nature of *Alexanders* Horſe before ſpoken of, called *Bucephalus*, is ſufficently ſaid, except this may be added, that ſo long as he was naked and without furniture, he would ſuffer any man to come on his back; but afterwards being ſadled and furniſhed, he could endure none but *Alexander* his Maſter: For if any other had offered to come near him, for to ride him, he firſt of all terrified him with his neighing voice, and afterwards trod him under foot if he ran not away. When *Alexander* was in the *Indian* Wars, and riding upon this Horſe in a certain battle, performed many valiant acts, and through his own improvidence, fell into an ambuſh of his foes, from which he had never been delivered alive, but for the puiſſancy of his Horſe, who ſeeing his Maſter beſet with ſo many enemies, received the Darts into his own body, and ſo with violence preſſed through the middeſt of his enemies, having loſt much bloud, and received many wounds, ready to die for pain, not once ſtayed his courſe till he had brought his Maſter the King ſafe out of the battle, and ſet him on the ground; which being performed, in the ſame place he gave up the ghoſt and dyed, (as it were comforting himſelf with this ſervice) that by his own death he had ſaved the life of ſuch a King: for which cauſe, after *Alexander* had gotten victory, in that very place where his Horſe died, he built a City and called it *Bucephalon*.

Gillius.

It is alſo reported that when *Licinius* the Emperour would have had his Horſes to tear in pieces his Daughter, becauſe ſhe was a Chriſtian, he himſelf was by one of them bitten to death. *Neocles* the Son of *Themiſtocles* periſhed by the biting of a Horſe: neither herein only is the nature of Horſes terrible, becauſe alſo they have been taught to tear men in pieces: for it is ſaid that *Buſiris* and *Diomedes* did feed their Horſes with mans fleſh; and therefore *Hercules* took the like revenge of *Diomedes*, for he gave him to his Horſes to be eaten: of *Diomedes* were theſe Verſes made;

Textor.

Ut qui terribiles pro gramen habentibus herbis,
Impius humano viſcere pavit equos.

The like alſo is reported of *Glaucus* (the Son of *Syſiphus*) who fed Horſes with mans fleſh at *Potnia* a City of *Bœotia*, and afterward when he could make no more proviſion for them, they devoured their Maſter: whereof *Virgil* writeth thus;

Et mentem Venus ipſa dedit, quo tempore Glauci
Potniades malis membra abſumpſere quadrigæ.

But this is thought a fiction, to expreſſe them which by feeding and keeping of Horſes, conſume their wealth and ſubſtance. And thus much for the natural inclination of Horſes.

Of ſeveral kindes of Horſes.

There be ſeveral kinds of Horſes which require a particular tractate by themſelves, and firſt of all the Martial or great warlike Horſe, which for profit the Poet coupleth with Sheep:

Laniferæ pecudes & equorum bellica proles.

The parts of this Horſe are already deſcribed in the Stallion, the reſidue may be ſupplyed out of *Xenophon* and *Oppianus*. He muſt be of a ſingular courage and docibility, without maime, fear, or other ſuch infirmity.

He muſt be able to run up and down the ſteepeſt hils, to leap, and bite, and fight in battle, but with the direction of his Rider: for by theſe is both the ſtrength of his body and minde diſcovered; and above all, ſuch a one as will never refuſe to labour, though the day be ſpent: wherefore the Rider muſt firſt look to the inſtitution and firſt inſtruction of his Horſe, for knowledge in martial affaires is not natural in Men or Horſes, and therefore except information and practice adorne nature, it cannot be, but either by fear or heady ſtubborneſs, they will overthrow themſelves and their Riders. Firſt of all they muſt not be Geldings, becauſe they are fearful, but they muſt be ſuch as will rejoyce and gather ſtomach at the voice of muſick, or Trumpets, and at the ringing of Armour: they muſt not be afraid of other Horſes, and refuſe to combate, but be able to leap high and far, and ruſh into the battle, fighting (as is ſaid) with heels and mouth.

The principal things which he muſt learn are theſe; firſt to have a lofty and flexible neck, and alſo to be free, not needing the ſpur; for if he be ſluggiſh and need often agitation to and fro by the hand of the Rider, or elſe if he be full of ſtomach and ſullen, ſo as he will do nothing but by flattery and fair ſpeeches, he much troubleth the minde of the Rider: but if he run into the battle with the ſame outward aſpect of body, as he doth unto a flock or company of Mares, with loud voice, high neck, willing mind, and great force, ſo ſhall he be both terrible to look upon, and valiantly puiſſant in his combate. Wherefore the Rider muſt ſo carry his hand, as the rains may draw in the Horſes neck, and not ſo eaſily, as in a common travelling Gelding, but rather ſharply to his grievance a little, by which he will be taught as it were by ſignes and tokens to fight, ſtand ſtill, or run away.

Xenophon.

The manner of his inſtitution may be this; after the dreſſing and furniſhing of your Horſe as aforeſaid, and likewiſe the backing, firſt of all move, ſtir or walk your Horſe gently, untill he be well acquainted with the cariage of your hand and whole body, and afterward accuſtome him to greater and ſpeedier pace or exerciſe, uſe him alſo to run longer races, and alſo by drawing in your hand to ſtay or ſtop ſuddenly; for there are Horſes ſo inſtructed, that they can ſtay themſelves in their ſpeedieſt courſe upon an inſtant, without any circumambulation, ſhaking off the violence of their courſe, like an ordinary trotting Nag, by mounting up a little with their forefeet.

The inſtitution of a warlike Horſe.

And alway it is to be remembred that after the mounting on horſe-back, you muſt firſt of al begin on the left hand, bending your hand that way, and alſo to the right hand when you would have your Horſe to turn on that ſide. And above all other things Horſes are delighted with crooked, bending and round courſes, ſuch as are in circles and Rings, and he muſt be accuſtomed to run from other Horſes leaving them behind him, and likewiſe turning toward them and making at them with his face to them: but headlong and precipitate courſes, ſuch as hunters make without guiding body, hand or Horſe, are evermore to be avoided, for many men have periſhed from their Horſes, as the Poets witneſs of *Nipheus*, *Leucagus*, *Liger*, *Clonius*, *Remulus*, *Amycus*. And alſo among the *Hiſtoriographers*, *Agenor*, *Fulco* of *Jeruſalem*, *Philip* ſon of *Ludovicus Craſſus* King of *France*, and *Bela* King of *Pannonia*.

Men have periſhed by raſhneſs in riding.

Of Horſe-men, and the orders of Chivalry and Knighthood.

The honour of Horſemanſhip.

THe principal Horſe-men of the world celebrated in ſtories, for training, ruling, and guiding their Horſes according to the art of War, may for the dignity of Knighthood (wherewithal they are honoured) and from whom that Equeſtrial order is derived, be recited in this place. It is manifeſt by *Sipontinus*, that the *Roman* Equeſtrial order, was in the middle betwixt the Senatours and the common people, for at the firſt there was no difference betwixt *Equites* and *Judices*, for both of them had for a badge, cogniſance, or note of their honour, power to wear a ring of gold, and in the Conſulſhip of *Marcus Cicero* the title was turned to Equeſtrial, or name of a Knight, or man at Armes, by that means reconciling himſelf to the Senate, and affirming that he was derived from that order, and from that time came the *Equeſter ordo*, being, as is ſaid before, the people, and recorded after the people, becauſe of the latter creation thereof: yet had they not their beginning at this time, but only now they firſt came into the orders of the Common-wealth; for they were called *Celeres* under *Romulus*, of one *Celer* who at the command of *Romulus* ſlew *Remus*; and he was made the chief Judge of three hundred. They were afterward called *Flexanimes*, either becauſe they ſwayed the minds of them whom they judged, or elſe which is more probable, becauſe of martialling and inſtructing their Horſes for war: afterward becauſe they took a great company of horſe-men, without all aid of footmen, at the City *Troſſulum* in *Thuſcia*, they were called *Troſſulani*, and *Troſſuli*, and yet ſome ignorant perſons honoured with the title of *Troſſuli* in remembrance of that victory, were aſhamed thereof as unworthy their dignities.

Feſtus.

They were forbidden to wear purple like as were the Senatours, and their golden Ring was a badge both of Peace and War. The Maſter of the Horſe among the *Romans*, called by the *Grecians*, *Hipparchus*, and by the *Latins*, *Magiſter Equitum*, was a degree of honour next to the *Dictator*, and *Marcius* the *Dictator* made the firſt Maſter of horſe-men, who was called *Spurius*, and ſet him in place next to himſelf. Theſe Equeſtrial men or Knights of State were wont to be publicans at the leaſt, and it was ordained that no man ſhould be called into that order, except both he, his Father, and Grandfather were free men, and were worth in value twenty thouſand pound: *Turon* and *Tiberius* made this law, but afterward it grew remiſſe and not obſerved; whereby both Bondmen and Scribes were rewarded with this dignity from the Emperour, for Orations and pleaſing ſpeeches: yet were the Decurial Judges choſen out of this rank; for indeed by primary inſtitution, they were the flower and ſeminary of the *Roman* Gentry. *Pliny* complaineth that this dignity which was wont to be a reward for Military men, who had adventured their lives for the honour of their Countrey, was now beſtowed corruptly, and for money upon mean bribing perſons. It ſhould ſeem they had every one a Horſe of honour given to him for his note, for if one of them had grown fat and unweeldy, not able to manage and govern this Horſe, it was taken from him. And *Cato* took away the Horſe from *Scipio Aſiaticus*, becauſe he had intercepted money; and from hence came the terms of their allowance, as *Equeſtre æs*, for that money which was paid for a Horſe to one Knight, and *Pararium æs*, for a double fee to an Equeſtrial man.

Suidas.

The *Athenian* Orders.

Among the *Athenians*, the higheſt order was of them which were called *Pentacoſiomedymni*, which had plowed ſo much ſand as had ſowed an 100 buſhels of Corn: and the next degree were their *Equites*, Knights, or Horſe-men, becauſe for the defence of their City, they were able every one to nouriſh a Horſe of war. There were of theſe in ancient time but 600, and afterward they were increaſed unto 1200. and the ſacrifices which were made for their pomps and triumphs, were called *Hippades*: and they had liberty to nouriſh their long hair which was forbidden to other men, and their tax to the ſacrifice was at the leaſt half a talent, (which is at the leaſt 300 Crowns) and this ſacrifice was made for the health of their Horſes. There were two Maſters created over theſe, to wage and order war; and ten inferiour Governours or Wardens to look to the proviſion and nouriſhing of Horſes.

Ariſtophanes.
Cælius.
Suidas.

Among the *Lacedemonians* they had four Governments; the *Monarchy* for the Kings, the *Ariſtocraty* for the Old-men, the *Oligarchie* for their *Ephori* or Commiſſioners, the *Democratie* for their Young-men, which governed, managed, and inſtructed Horſes. *Neſtor* that ancient Knight was commended for his skill, and had therefore given him the title of *Hippotes*.

Among the *Calcidenſians* there was not a rich man but they took him into this Order, and the *Cretians* likewiſe did ever highly account hereof, and made it their higheſt degree of honour, for even the *Romans* did ſometime govern whole Provinces with no other then theſe; and *Egypt* had this in peculiar, that no other Order, no not a Senator might be Preſident or Govern among them. The *Achaans* had this degree in high eſtimate, like as the *Germans* their *Batavi* or States. The Citizens of *Capua* were and are diſguiſed with a perpetuity of this honour, becauſe in the *Latin* war, they did not revolt from the *Romans*; and among all other, the *Gaditan* were moſt honoured herewith, for at one time and for one battle they created 400. This title hath ſpred and adorned it ſelf with many more degrees, as that among the *French*, *Caballarii* and *Equites aurati*, and ſuch as are Knights of *Jeruſalem* and divers others, ſome for Religion, and ſome for feats of Armes: whereas the *Perſians* uſed a certain kind of garment in War, called *Manduas*, from hence cometh the Knights upper garment to be called a mantle, for all the *Perſians* were Horſemen. The nobleſt Horſes and ſuch as could run moſt ſpeedily and ſwiftly were joyned together in chariots for races, courſes, ſpectacles, games and combates, for great values and prizes.

——— Nempe volucrem
Sic laudamus equum: facili cui plurima palma
Fervet, & exultat rauco victoria circo.

And again *Ovid* ſaith;

Non ego nobilium venio ſpectator equorum.

And *Horace*;

Nec te nobilium fugiat certamen equorum.

There was one *Anniceris* a *Cyrenian* moſt skilful in this practiſe, and according to the vain humors of men, was not a little proud hereof, and for his love to *Plato* would needs in the *Academy* ſhew him and his Scholars his skill, and therefore joyning his Horſes and Chariot together, made many courſes with ſuch an even and delineate proportion, that his Horſes and wheels never wandered a hair breadth from the circle or place limited, but alway kept the ſame road and footſteps, whereat every one marvelled: but *Plato* reproved the double diligence and vain practice of the man, ſaying to him in this manner, It cannot be, that a man which hath travelled and laboured ſo much in an art or skill of no worth or uſe in the Common-wealth, that ever he can addict his mind to grave, ſerious and profitable buſineſs, for while he applyeth all his parts and powers of body and ſoul to this, he is the leſſe able and more unapt to thoſe things which are alone more worthy of admiration.

The ancient cuſtom was, to uſe other mens Horſes in this combate, and therefore in the funeral of *Patroclus*, *Homer* bringeth in *Menelaus*, uſing the Horſe of *Agamemnon*. There were four ſeveral places wherein theſe games of Horſes and Chariots were wont to be obſerved and kept, and they were called after theſe places, *Olympia*, *Pythia*, *Nemea*, and *Iſthmia*, and of all theſe the *Olympiads* were the chief, whereof all ſtories are full, for they were celebrated in *Olympus* every fifth year incluſively, that is, after the end of every fourth year.

The writers of Chronicles do agree that the games of *Olympus* were firſt inſtituted by *Hercules* in the 2752. year of the world, beginning the world from *Noahs* flood, and they begin to record and number the firſt *Olympiad* to be about the 3185. year of the world, about ſeventeen year before the building of *Rome*.

There were of theſe *Olympiads* 328. and the laſt of theſe by computation or account fell about the year of our Lord 534. after the birth of Jeſus Chriſt the bleſſed Saviour of the world.

The perfection of theſe games began the twenty five *Olympiad*, at what time *Pagondas* the *Theban* was pronounced victor: for then were ſwift Horſes brought into the games, and were called *Teleioi*, that is, perfect in agility and growth; and theſe are called by *Pindarus*, *Monampycia*; afterward came in *Synoris* with two Horſes, and in ſucceſſion both Colts, Mares, and Mules: their courſes are thus expreſſed by *Virgil*;

——— Ergo animos ævumque notabis,
Et quis cuique dolor victo, quæ gloria palmæ,
Nonne vides? cum præcipiti certamine campum
Corripuere, ruuntque effuſi carcere currus,
Cum ſpes arrectæ juvenum, exultantiaque haurit
Corda pavor pulſans, illi inſtant verbere torto,
Et proni dant lora: volat vi fervidus axis.
Jamque humiles, jamque elati ſublime videntur
Aera per vacuum ferri atque aſſurgere in auras,
Nec mora, nec requies: at fulva nimbus arenæ
Tollitur: humeſcunt ſpumis, flatuque ſequentum:
Tantus amor laudum, tantæ eſt victoria curæ.
Sin ad bella magis ſtudium turmaſque feroces,
Aut Alphæa rotis prælabi flumina Piſæ,
Et Jovis in luco currus agitare volantes:
Primus equi labor eſt, animos atque arma videre
Bellantum, lituoſque pati, tractuq; gementem
Ferre rotam, & ſtabulo frenos audire ſonantes.

And *Horace* expreſſeth it in this manner:

Sunt quos curriculo pulverem Olympicum
Collegiſſe juvat, metaque fervidis
Evitata, rotis, palmaque nobilis
Terrarum dominos evehit ad deos.

Women were wont to be excluded from theſe games, untill *Cyniſca* the daughter of *Archidamus* King of the *Spartans*, firſt of all other women nouriſhed and trained Horſes for theſe currule and Chariot games, and when ſhe brought her Horſes to *Olympus*, ſhe obtained the prize; therefore her Horſes were conſecrated to *Jupiter Olympius*, and their figures remained in Braſs in his Temple.

Pliny. It is alſo ſaid that *Echarates* a *Theſſalian* overcame in the *Olympian* games with a Mare great with foal: And it is alſo reported that *Miltiades* the ſon of *Cimon Steſagora* (one of the ten Captains of *Athens*) ran away from *Piſiſtratus* the Tyrant, and in the time of his abſence, he was twice Victor at *Olympus* by four Mares, the firſt time he beſtowed the glory upon his couſen German *Miltiades*, his mothers brothers ſon, and the ſecond time he took it to himſelf, for which cauſe he was ſlain by the ſons of *Piſiſtratus*; his Mares were alſo buryed over againſt him, with an inſcription, that they had won four games in *Olympus*, ſo that it appeared, he ran divers times and never miſſed victory. At *Athens* they obſerved theſe courſes with Horſes in honour of *Theſeus*, and called the place of the running, *Hippodromus*.

The *Latines* call it *Stadium*, and *Curriculum*, and it was appointed in ſome plain valley, according to the proverb, *Equus in planiciem*; in the midſt whereof was a building called *Circus*, whereon the beholders ſtood to look upon the paſtime, and there were alſo places to contain the Horſes and Chariots, till they were turned out to run, (called *Carceres*) according to the verſes of *Silius*:

Sic ubi proſiluit piceo de carcere præceps
Ante ſuos it victor Equus. ———

And *Horace* alſo,

Ut cum carceribus miſſos rapit ungula currus,
Inſtat equis auriga ſuos vincentibus, illum
Præteritum temnens extremos inter euntem.

And hereof came the proverb (*A carceribus ad calcem*) ſignifying from beginning of the race to the latter end. *Erichthonius* invented a Chariot called *Harma*, and was the firſt that ever ran in *Olympus* with four Horſes in the ſame, of whom *Virgill* writeth thus:

Primus Erichthonius currus & quatuor auſus
Jungere Equos rapidiſque inſiſtere victor.

And from hence came the tearm *Quadriga*, for a Chariot with four Horſes. There was a Chariot in *Athens* drawn by one Horſe, and the games thereof were called *Polemyſteria*. Likewiſe at *Rome* in the Conſul-feaſts celebrated for the honour of *Neptune*, they ran with Horſes both joyned and ſingle.

There were likewiſe games at *Rome*, called *Equitia*, and *Equiria*, celebrated every year, the twelfth of the Calends of *May*, wherein after the Horſes they courſed Foxes tyed to pieces of wood ſet on fire; this is called in *Latine* alſo *Turneamentum*, and in *Italian* by *Scoppa*, *Hagiostra*; and in *French* *Formierim*. There is alſo a play with Horſes for children cal'd *Troia*, firſt invented by *Aſcanius*, when he beſieged *Alba*, and by him brought and taught to the *Romans*, of which *Virgill* ſpeaketh, ſaying;

Incedunt pueri, pariterque ante ora parentum ———
Frenatis lucent in equis, ———
Cornea bina ferunt præfixa haſtilia ferro:
Pars leves humero pharetras. ———
Tres equitum numero turmæ, ternique vagantur
Ductores: pueri biſſeni quemque ſecuti.
——— *Signum clamore paratis*
Æpytides longe dedit, inſonuitque flagello.
Olli diſcurrere pares, atque agmina terni
Diductis ſolvere choris, rurſuſque vocati
Convertere vias, infeſtaque tela tulere.
Inde alios ineunt curſus, alioſque recurſus
Adverſis ſpatiis, alternoſq; orbibus orbes
Impediunt, pugnæque cient ſimulachra ſub armis.
Et nunc terga fugæ nudant, nunc ſpicula vertunt
Infenſi: facta pariter nunc pace feruntur.
Hunc morem curſus, atque hæc certamina primus
Aſcanius, longam muris cum cingeret Albam

Retulit, & priſcos docuit celebrare Latinos.
——*Hinc maxima porro*
Accepit Roma, & patrium ſervavit honorem:
O *Trojaque nunc pueri, Trojanum dicitur agmen.*

Of the greateſt Horſe-maſters *and nouriſhers of* Horſes.

IT is reported of King *Solomon*, that he had forty thouſand ſtables of Horſes for Chariots, and twelve thouſand for war. The *Lybians* when they went to war, did fight out of their Chariots, and therefore they were ſaid to fight upon two Horſes. The *Centaures* were the firſt that ever taught men to fight on Horſe-back, and the *Roman Turnia* conſiſted of two and thirty Horſe-men, the Captain whereof was called *Breeurio*. The people of *Nomades* called *Surgatii*, brought eight thouſand Horſe-men at one time into the field, which neither uſed armour, nor braſs, nor iron, except only their daggers, and a rope of leather thongs, wherewithall they entred the battail, and joyning with their enemy, they made certain gins, or loops thereupon, which they caſt upon the necks of Horſes and men, and ſo with multitudes drew them unto them, in which draught they ſtrangled them.

The *Indians* uſe the very ſelf ſame Armour on Horſe-back that they do on foot, but yet they lead empty Horſes and Chariots to leap up and down upon, and to refreſh their fighting Horſes; and the number of their Horſe-men were at one time fourſcore thouſand.

When *Pharnuches* the *Arabian*, was riding on Horſe-back, there was a Dog ran betwixt his Horſes legs, wherewithall the Horſe being amazed, ſuddenly leaped upright, and caſt off his Rider, who being bruiſed with the fall, fell into a Conſumption: whereupon the Servants at the commandment of their Maſter, brought the ſaid Horſe into the place where he caſt his Rider, and there cut off his legs about the knees. There was alſo a faſhion for Horſes to fight in battails without bridles: For *Fulvius Flaccus*, when the *Romans* overthrew the *Celtiberians* in *Spain*, cauſed them to pull off their bridles from their Horſes, that ſo they might run with all violence, without reſtraint of Riders upon their enemies; whereupon followed victory: for many times it falleth out that the Horſe hath more courage then his Rider, wherefore a good Horſe-man muſt have skill to annoy his enemy, and defend himſelf; and likewiſe, to make his Horſe to come off and on without fear or dread, according to neceſſity.

There is a proverb in *Greek*, (*Choris hippein*) that is, (*Seorſim equites*) the Horſemen are aſunder, whereof *Suidas* giveth this reaſon: when *Darius* invaded the territory of the *Athenians* ranging and deſtroying at his pleaſure, no man daring to abide his forces, at his departure, the *Ionians* climed up into trees, and ſignified unto the *Athenians*, that the Horſe-men had broken rank and were aſunder. Whereupon *Miltiades* ſet upon the ſcatered company, and obtained a noble victory.

Of fighting in War upon Horſes.

THe moſt cruel and fearful kinde of fight, is the arming of Horſes, which were called in antient time *Catafracti*, and *Clibanarii*, and *Acatafracti*, and *Ferentarii*, fighting firſt of all with ſpear, and afterwards with ſword and ſhield, caſting ſometimes alſo darts at one another, and bearing bows to ſhoot arrows, their Horſes making room for them, which way ſoever they went: for with ſharp pikes and other crooked-keen-cutting-inſtruments, faſtened to their Armour or Chariot-wheels, in the violence of their courſe, they wounded, killed, over-turned, or cut aſunder whatſoever fleſh came in their reach.

The ancient Horſemen of the *Romans* had no breaſt-plates, (as *Polybius* affirmeth) and therefore they were naked in their fore-parts, providing for the danger that was behinde them, and defending their breaſt, by their own celerity: their ſhields were made of Oxe skins plighted and paſted together, being a little round in compaſs like the faſhion of a mans belly.

There was alſo great uſe of ſwift Horſes in War, for the *Roman* Souldiers carryed with them two *Dion.* Horſes a peece, being taught and exerciſed like *Indians*, when they had need to flie, to leap upon their empyty Horſe, for their ſparing of the other: and they were therefore called *Amphippi*, being apt to carry their Maſters out of danger, and from hence (*Ælianus* ſaith) the *Romans* took the pattern of their *Phalanx*, (called *Antiſtomus*) with which they uſed to terrifie the Barbarians, ſetting their Horſes in a double front, ſo as they appeared headed both wayes; and this was alſo the cuſtom of *Alexander.* all the *Germans*, when the number of their Horſe-men was not equall, they mingled the Foot-men, with their Light-horſes, who being experienced to run ſuddenly with the Horſe men, leaped into the battail, and ſurprized the enemies flying away: and the ſame faſhion did the *Spaniards* aſo uſe (*Strabo* ſaith) for the terrifying of their enemies, making the Foot-men to fall into the battell among the Horſe-men.

Thoſe which did ſhoot Darts on Horſe-back, were called *Hippotoxotæ*, and therefore *Ariſtophanes* in his diſcourſe of Birds, calleth Hawks by that name, for the reſemblance betwixt them and Horſes, bearing theſe Riders. The Hawks are ſo called in ſwiftneſs of their courſe; and becauſe the talons of the Hawk are crooked like bows. *Arrianus* writeth that the Horſe-men of *Alexander* carryed ſpears in their hands fourteen cubits long, whereunto I cannot conſent; for eight cubits is a common ſize, as much as any Souldier on Horſe-back is able to uſe.

In battail there are wings of Horſe-men, which are ſo called, becauſe like wings they cover and protect the Army. And there were alſo Legionary Horſe-men, becauſe they were joyned to the Legions of Souldiers, and the company of Elephants, Foot-men, and Horſe-men which were wont to go before the King, were called *Agema*. A company of Horſes ſet like a Tower in a Quadrangular form in a field, was called *Pergus*. The Armour of Horſes on his front or fore-part, is called *Prometopidia*, upon the ears *Parotia*, upon the cheeks *Paria*, upon the breaſt *Proſternidia*, upon the ſides *Parapleuridia*, upon the loins *Parameridia*, upon the legs *Paracnemidia*. And the time of arming a Horſe is known of every Souldier.

Of Riding.

THe *Medes*, *Perſians*, and *Armenians*, were the firſt that invented the art of riding and ſhooting, (as *Strabo* ſaith) *Pauſanias* cald *Neptune Hippeus* for no other cauſe, but that it was ſuppoſed he was the firſt invented the art of riding. *Polydorus* aſcribeth it to *Bellerophon*. *Lyſias* the Orator ſaith, that the *Amazonian* women were the firſt of all mortal creatures that firſt adventured to back Horſes. Others aſcribe it to the *Centaures*: But to leave the Invention, and come to the Art. *Damis* in the life of *Apollonius*, ſetteth down the ſum of the Art of riding, which briefly is this; To ſit ſtraight upon his Horſe, to rule him valiantly, to turn him with the bridle which way ſoever he pleaſeth, to beat him when he is ſtubborn, to avoid Ditches, Gulfs, and Whirpools when he rideth through waters; going up a hill, to lengthen the rains, and to reſtrain and draw them in going down the hill; now and then to ſtroke his hair, and not always to uſe ſtripes.

Martial hath an excellent Epigram upon one *Priſcus* a raſh-headed-hunter, who neither feared Hedges, Hils, Dales, Ditches, Rocks, Rivers, nor other perils; uſing a bridle to his Horſe, but none to his affections; and therefore he telleth him, that he may ſooner break a Hunters neck, then take away a Hares life: for there are deceits in the Rocks, Hils, and plain Fields, to ſhake the Rider from Horſe-back to the earth. Thus followeth the Epigram;

Parcius utaris moneo rapiente veredo,
Priſce, nec in lepores tam violentus eas.
Sæpe ſatis fecit prædæ venator, & acri
Decidit excuſſus nec rediturus equo.
Inſidias & campus habet: nec foſſa, nec agger,
Nec ſint ſaxa licet, fallere plana ſolent.
Non deerunt qui tanta tibi ſpectacula præſtent:
Invidia fati ſed leviore cadunt.
Si te delectant animoſa pericula, Thuſcis
(Tutior eſt virtus) inſidiemur apris.
Quid te frena juvant temeraria? Sæpius illis
Priſce datum eſt equitem rumpere, quam leporem.

The beſt place for riding, is a barren and plain Countrey. It is reported of *Claudius*, that when he had road a great way in the Countrey upon his enemies, and met no body, he returned back again into his own Camp, and blamed the ſluggiſhneſs of his enemies, becauſe no one of them was ſeen abroad.

It is reported by *Ariſtotle*, that the further a man rideth, the more apt he ſhall be to weep; and the reaſon is, becauſe of all the motions of the body, riding is the wholeſomeſt, both for the ſtomach and for the hips; for a man muſt not ſit on Horſe-back, as if he were carryed in a Coach; but rather keep his back-bone upright, not only to be moved by his Horſe that beareth him, but alſo by himſelf; and there he muſt ſit cloſe to the Horſes hips, extending his legs to the uttermoſt, uſing not only his eyes to look before him, but alſo lifting up his neck to help his ſight: for ſo the ſoft pace of the Horſe doth corroborate the ſpirit above all other exerciſes; likewiſe, the body and ſtomach; alſo it purgeth the ſenſes, and maketh them ſharp: yet ſometimes by the violent courſe of a Horſe, the breaſt of a Man, or ſome other part about the reins receive damage, (as ſome have obſerved:) yet is it not ſo much to be aſcribed to the motion of riding, as to the uneaſie pace, or rather to the uneaſie ſeat of the Rider.

The *Scythians* above all other Nations have the looſeſt and broadeſt bodies; and the reaſon is, becauſe they wrap not their children in ſwadling cloaths as other people, and likewiſe becauſe they have no regard unto their ſitting upon Horſe-back; and laſtly, for their continual ſloath and eaſe: for the men uſe much to ride in Chariots, and Litters, before they get on Horſe-back; but after they are accuſtomed thereunto, they ride ſo much, that their hips and bones fall full of ach, and they are alſo thereby made unfit for generation, becauſe in a journey of an hundred miles, they never light to eaſe themſelves and their Beaſts.

Theſe men hereafter named, were excellent Riders and tamers of Horſes. *Automedon*, ſervant of *Achilles*; *Idæus*, ſervant to *Paraimus*; *Metiſcus*, ſervant to to *Turnus*; *Myrtilus*, ſervant to *Oenomaus*; *Ceberes*, ſervant to *Darius*; *Anniceris*, ſervant to *Cyreneus*; *Picus* to *Meſapus*; and *Lauſus Silius* remembreth *Cyrnas*, *Durius*, *Atlas*, and *Iberus*.

The Inſtruments of Riding appertaining to a Horſe.

A Good Rider muſt conſider the hardneſs or ſoftneſs of his Horſes mouth, that ſo he may temper his bit; for a ſtiffe-necked Horſe, is not ſo much to be guided by rod and Spur, as by bit, and bridle: wherefore it muſt ſometime be hard, and ſometimes gentle. The hard bits are called *Lupati*, becauſe they are unequal, and indented to a Wolves teeth, whereunto the Horſe being accuſtomed, groweth more tractable and obedient to a gentle bit. According to the ſaying of *Ovid*:

Tempore paret equus lentis animoſus habenis,
Et placido duros accipit ore lupos.

And *Virgill* again ſpeaketh to like effect:

——*prenſiſque negabunt*
Verbera lenta pati, & duris patere lupatis
Aſper equus, duris contunditur ora lupatis.

And *Silius* ſaith:

Quadrupedem flectit non cedens virga lupatis.

There is alſo another inſtrument made of Iron or Wood (called *Paſtomis*) and *Engliſhed*, *Barnacles*; which is to be put upon the Horſes noſe, to reſtrain his tenacious fury from biting, and kicking, eſpecially at ſuch time, as he is to be ſhod or dreſſed. The *Indians* were wont to uſe no bridles, like the *Græcians* and *Celts*, but only put upon their Horſes mouth a piece of a raw Oxe skin, faſtened round about, containing in it certain iron pricks ſtanding to the Horſes lips, putting a long round trench through his mouth, to the edge whereof they faſten the rains, wherewithall they guide the beaſt. The *Turkiſh* Horſes, and *Spaniſh* Jennets have bits, with open circles in the middle, conſiſting of Leather, or Iron, to reſtrain the Horſes fury. The rains are called *Habenæ*, becauſe they make the Horſes, *Habiles*, that is, tractable, and rulable, to be turned, reſtrained, or put forward, at our pleaſure, according to the ſaying of *Silius*;

Ferrato calce, atque effuſa largus habena,
Cunctantem impellebat equum.——

And *Virgill*:

Ipſe ter adducta circum caput egit habena.

Neither is there any Horſe ſwift, or ſlow, noble, or unnoble, that can be guided without theſe, which muſt be held continually in the hand of the Rider, they muſt not be unequal, one longer then another, neither thick, neither weak, nor brickle.

There was a certain golden chain (called *Ampix*) wherewithal the fore-tops of Horſes were wont to be bound or tyed up, and thereupon *Homer* calleth the Horſe of *Mars*, *Chryſampix*; and from hence that cuſtom of womens frontlets, to be adorned with gold and pretious ſtones. There are alſo other ornaments of Horſes called trappings; and in *Latine*, *Phalera*, derived from *Phalon* in *Greek*, ſignifying bright, becauſe they were wont to put a great deal of gold and ſilver upon them, (as *Livius* ſaith) which Horſes ſo trapped, were preſents for great Princes: And there is a kind of *Achates* ſtone, wherewithal the *Indians* do adorn their Horſe-trappings: and it was apparent in *Homers* time, that they uſed little Bels, or ſounding pieces of Braſs to be faſtened to their Horſes bridles and trappings; they hanged likewiſe Jewels and Pearls to the breaſt of their Horſes, which *Virgill* expreſſeth in this manner:

Inſtratos oſtro alipedes, pictiſque tapetis
Aurea pectoribus, demiſſa monilia pendent.
Tecti auro, fulvum mandunt ſub dentibus aurum.

A good Horſe-man muſt alſo have a paring knife, wherewithal to purge and open his Horſes feet: this is called by *Rufius*, *Roſſneta*; and by others *Scalprum*. There is a kinde of Manicle for the paſterns of Horſes, (called *Numella*.) Moreover a good Rider muſt provide him ſtirrops, (called *Subſellares* and *Stapbe*) which although it be but a new deviſe, yet are they ſo neceſſary for every Rider, as without them they cannot long continue. They muſt not be made too ſtraight for the foot, becauſe that then they do not only hinder motion in that part, and ſo make it benummed and cold, but alſo give occaſion of great hurt to the Rider in caſe the Horſe fall, except he can ſo temper himſelf to put but a very little part of his foot therein.

There are alſo Spurs requiſite to a Rider (called *Calcaria*) becauſe they are faſtened to the heel of a man, wherewithal he pricketh his dull Horſe when he would have him haſten the journey, and the *Greeks* derive it from *Muops*, ſignifying a pricking fly, from imitation of which creature it may ſeem they took this invention: but this muſt be remembred, that they are prepared for the dull and ſluggiſh Horſe, and not for the free and full of life; for ſuch a Horſe being pricked therewith, runneth forth rather with rage and diſdain, then for love of the journey, and many times the torment thereof maketh him by kicking out his heels to caſt off his Rider.

Laſtly, he muſt have regard to his Saddle, whereon he muſt ſit: for the Barbarians did uſe to ride upon bare Horſes backs; but ſince that time, the wiſer ſort of Horſe-men have invented a ſeat for their own ſecurity. *Martiall* writeth hereof thus:

Stragula ſuccincti venator ſume veredi,
Nam ſolet a nudo ſurgere ficus equo.

Of Hunting Horſes.

HUnting Horſes becauſe of their ſwiftntſs, were wont to be called *Veredi*; according to the ſaying: *Sunt & veredi, curſu pernices:* Although they uſe this kinde alſo for poſts, and performance of ſpeedy journeys. The males are much better then the females, and therefore they ſeldom uſe Mares in hunting, becauſe they are not ſo well able to leap, or endure the Woods, for which cauſe *Gratius* writeth in this manner of them;

Reſtat equos finire notis, quos arma Dianæ
Admittant: non omne meas genus audet in artes.
Eſt vitium ex animo: ſunt quos imbellia fallant
Corpora: præveniens quondam eſt incommoda virtus.

Oppianus in his diſcourſe of hunting Horſes, (as we have ſaid already) adviſeth to make choiſe of them by the colour, unto whom *Gratius* conſenteth, ſaying:

Venanti melius pugnant color, optima nigri.

They that are of blewiſh colour, having variable ſpotted legs (he ſaith) are fitteſt to hunt Harts: they that are of a bright gray, to hunt Bears, and Leopards; they that are bay, or of a reddiſh colour, to hunt the Boars: they that are black, having glazen eyes, are good againſt Lyons: and thus much for the hunting Horſes.

Of Courſers, or ſwift light running Horſes.

AFter the uſe of Wagons, and Chariots, which men had invented for their eaſe in travel, and growing to be weary thereof, by reaſon of many diſcommodities, they came alſo to the uſe of ſingle Horſes, which therefore they called Courſers, and now a days a Horſe for Saddle, whereupon men perform their journeys; and the Poets ſay, the inventer hereof was *Bellerophon* the ſon of *Neptune*, to whom his father gave *Pegaſus* the flying Horſe; which therefore they deſcribe with wings, and place for a ſtar in Heaven like an Angel, becauſe of his incredible celerity: others attribute it to the invention of *Seſoſtris*, otherwiſe called *Seſonckoſis*, a King of *Egypt*; ſome to *Orus*, when he waged war againſt his brother *Typhon*; For theſe Horſes, are no leſs profitable in war, then in peace, although none uſe them in theſe days, but common Souldiers; yet in antient time the greateſt Nobles rode upon them. The Emperor *Probus* had one of theſe Horſes, which was nothing comely, nor very high, yet would he endure ordinary journeys, to run a hundred mile a day, whereupon his Maſter was wont to ſay merrily; that he was better for a flying, then a fighting Souldier. The Horſes of *Spain* are of this kinde, which they call Jennets, of *Genibus* their knees; becauſe when the Rider is on their backs, he muſt hold his knees cloſe to the Saddle and ſides, for his better eaſe. Like unto theſe are the *Barbary* Horſes, whom they geld, to keep them from the hardneſs of the Nerves, which happenth unto them in their heat and travel. There are a kinde of Horſes called *Lycoſpacks*, and the reaſon of this name is, as ſome ſay; becauſe when they were Foals, they eſcaped the teeth of Wolves, being ſet on by them: and therefore they run the more ſpeedily to their dying day, for the wounds of Wolves make a Horſe light footed; but this is not likely, for fear cannot put that into them which is not bred of nature; even as we ſay, that *Vlyſſes* by avoiding *Circes* cup, or *Cyclops*, was therefore made wiſe; but rather on the contrary; becauſe he was wiſe, therefore he did avoid *Circes* cup; ſo likewiſe we ſay, that theſe Horſes are not lighter of foot, nor fuller of courage, becauſe they were ſet upon by Wolves, and delivered by fear; but becanſe nature hath framed them, nimble, valiant, and couragious; therefore they did avoid the Wolf.

Ælianus alſo ſaith, that theſe Horſes had a wonderful knowledge, and ſagacity, to diſcern betwixt *Græcians* and other Nations; for when a *Græcian* came unto them, they loved them, ſtood ſtill, and took meat at their hands; but if a *Barbarian*, or ſtranger came unto them, they diſcerned them by their noſe, as a Dog doth the foot-ſteps of a Beaſt, lifting up their voyce, they ran as faſt away from them as they would from any ravening Beaſt. Theſe loved not only their familiars; but above all other things to be neat, fine, and cleanly in Chariots: For if at any time they came through water, drawing of a Chariot, they took a pride in cleanſing themſelves from all durt and filthineſs, cleaving to their legs or face. And that which is more ſtrange, they were unwilling in race, to be ſtayed or taken out thereof, as appeared by this ſtory, related by *Feſtus*. There is ſaith he in *Rome* a great gate called *Ratumena*, which took his name from the death of a young man, an *Hetrurian*, who periſhed there in a race of Chariots, being Conqueror, becauſe his Horſes would not ſtay untill they came into the Capitol, and ſaw the framed earthen Chariots, which were placed in the porch of *Jupiters* Temple by the *Romans*, and were appointed to be faſhioned in earth by the hand of a cunning Potter, the which being wrought in earth, and put into the furnace, they grew ſo great that they could not be taken out whole; at the ſight of theſe, the Horſes of *Ratumena* ſtood ſtill, but firſt of all, their maſter was ſlain in the courſe by falling off.

The Horſes of *Tartaria* are ſo incredibly ſwift, that they will go twenty *German* miles in one day. There was a race of Horſes at *Venice* (called *Lupiferæ*) which were exceeding ſwift, and the common fame is, that they came upon this occaſion. There was a certain merry fellow, which would become ſurety for every man, for which he was commonly jeſted at in the whole City. It fortuned on a day, as he travelled abroad in the Woods, that he met with certain Hunters that had taken a Wolf, they ſeeing him, asked him merrily, if he would be ſurety for the Wolf, and make good all his damages that he had done to their flocks, and foals, who inſtantly confeſſed he would undertake for the Wolf, if they would ſet him at liberty; the Hunters took his word, and gave the Wolf his life, whereupon he departed without thanks to the Hunters.

Afterward in remembrance of this good turn, he brought to the houſe of his ſurety a great company of Mares without mark or brand, which he received, and branded them with the Image of a Wolf, and they were therefore called *Lupiferæ*, from whom deſcended that gallant race of ſwift Horſes among the *Veneti*: upon theſe ride the poſts, carrying the letters of Kings and Emperors to the appointed places, and theſe are ſaid to refuſe copulation with any other Horſes that are not of their own kinde and linage.

The *Perſian* Horſes are alſo exceeding ſwift, which indeed have given name unto all others. The meſſengers of the great *Cam* King of *Tartaria*, have their poſts ſo appointed at every five and twenty miles end, of theſe running light Horſes, that they ride upon them, two or three hundred miles a day: And the *Pegaſarian* courſers of *France*, by the like change of Horſes, run from *Lyons* to *Rome* in five or ſix days.

The Epithets of a ſwift running courſer are theſe, winged or wing-bearing, Lark-footed, breathing, ſpeedy, light, ſtirred, covetous of race, flying, ſweating, not ſlow, victorious, raſh, violent, and *Pegaſean*. *Virgil* alſo deſcribeth a ſwift and ſluggiſh Horſe moſt excellently in theſe verſes; ſending one of them to the Ring, and victory of running, without reſpect of Countrey or food, they are to be praiſed for enriching his maſter, and the other for his dulneſs to the mill, the verſes are theſe following.

——Nempe volucrem
Sic laudamus equum, facili cui plurima palma
Fervet, & exultat rauco victoria Circo.
Nobilis hic, quocunque venit de gramine, cujus
Clara fuga ante alios, & primus in æquore pulvis,
Sed venale pecus Corithæ, poſteritas &
Hirpini, ſi rara jugo victoria ſedit,
Nil tibi majorum reſpectus, gratia nulla
Umbrarum, dominos pretiis mutare jubentur
Exiguis, tritoque trahunt Epirhedia collo
Segnipedes, dignique molam verſare Nepotis.

One of theſe ſwift light Horſes is not to be admitted to race or courſe untill he be paſt three year old, and then may he be ſafely brought to the ring, and put to the ſtretching of his legs in a compoſed or violent pace, as *Virgil* ſaith:

Carpere mox gyrum incipiat gradibuſque ſonare
Compoſitis, ſinuetque alterna volumina crurum.

Pliny affirmeth, that if the teeth of Wolves be tyed to theſe Horſes, it will make them never to give over in race, and when the *Sarmatians* were to take long journeys, the day before they gave their Horſes very little drink, and no meat at all, and ſo would they ride them an hundred and fifty miles out right.

Vartomanni.

The *Arabians* alſo in many regions uſe to ride upon Mares, upon whom they perform great journeys, and King *Darius* did alſo fight his battails upon Mares which had foals; for if at any time their affairs went to rack, and they in danger, the Mares in remembrance of their foals at home would carry them away more ſpeedily then any other Horſe: and thus much for the light or ſwift Horſes.

Of the Gelding.

They have uſed to lib their Horſes, and take away their ſtones, and ſuch an one is called in *Latine*, *Canterius*, or *Cantherius*, which is drived of *Cauterium*, becauſe they were ſeared with hot irons, or elſe from the ſtronger boughs or branches of Vines, ſo called, becauſe they were pruned. In *French*, *Cheval Ogre*, *Cantier*, *Cheuron*, and *Soppa* doth interpret the *Spaniſh*, *Janetto*, to be a Gelding. It is ſaid of *Cato Cenſorius*, that he was carryed and rode upon a Gelding; and of theſe the *Turkiſh* Horſes receive the greateſt commendations.

Grapaldus. Foraſmuch as many Horſes by their ſeed and ſtones are made very fierce, truculent, and unruly, by taking away of them, they are made ſerviceable and quiet, which before yeelded unto man very little profit: and this invention may ſeem firſt of all to be taken from them which fed divers together in one herd, being taught the intolerable rage of their ſtoned Horſes towards their Colleagues and guides; for abating whereof they took from them their male parts.

Camerarius. Of the manner hereof you may read plentifully in *Ruſtus*, and he affirmeth that the *Scythians* and *Sarmatians*, who keep all their Horſes in herds, were the firſt deviſers thereof: For theſe people uſing to rob and forrage, were many times by the neighing of their unruly Horſes diſcovered; for their property is to neigh not only at Mares, but alſo at every ſtranger that they ſee or winde, and for males they were ſo head-ſtrong, that they would divers times carry away the Rider perforce, and againſt his will, to his own deſtruction, in the rage of their natural luſt.

Camerarius. If they be gelded under their dams when they ſuck, it is reported by ſome, that from ſuch their teeth never fall away; and beſide, in the heat of their courſe their nerves are not hardned, for which cauſe they are the beſt of all to run withall.

They uſe to geld them in *March*, in the beginning of the Spring, afterward being well nouriſhed, they are no leſs ſtrong, able and couragious then other unlibbed; alſo there is a pretty proverb, *Cantherius in Foſſa*, a Gelding in a Ditch, which is then to be uſed, when a man undertaketh a buſineſs which he is not able to manage; for a Horſe can do much in a plain, but nothing at all in a Ditch. It *Livius.* is reported that *Jubellius Taurea*, and *C. Aſſellius*, fought a combate on Horſe-back near the City *Capua*, and when one had provoked another a good while in the plain fields, *Taurea* deſcended into a hollow way, telling his fellow combatant, that except he came down unto him, it would be a fight of Horſes, and not of Horſe-men; whereunto *Aſſellius* yeelded, and came down unto the Ditch: at whom his adverſary jeſted, asking him, if he did not know, that a Gelding could do nothing in a ditch, from whence came the common proverb aforeſaid.

There is alſo another proverb (*Cantherius in Porta*) A Gelding in the gate, to ſignifie a man who after he had undertaken the performance of a great exploit, his heart faileth in the very entrance, for it is reported of one *Sulpicius Galba*, who riding out of the City, his Horſe tyred in the gate.

Feſtus. There is likewiſe another adage in *Plautus*, which is this; *Crete hac mulier Cantherino ritu aſtans ſomniat.* That is to ſay, this Woman ſleeps ſtanding like a new dreſſed Horſe, and is applyed againſt them which in a kinde of fooliſh jeſture ſhut their eyes when they talk or work: and thus much for the Gelding.

Of Careering Horſes *for Pomp or Triumph.*

THe nature of theſe Horſes is to lift up themſelves and riſe before, ſtanding upon their hinder legs, which is not poſſible for any to do without a generous and gallant ſpirit, and alſo nimble and ſtrong loins to bear up the hinder legs, for it is not as many ſuppoſe, that this power of riſing before from the ſoftneſs of his legs, but rather from his loins and hips betwixt his hinder legs, for when his mouth is a little checked with the bridle he preſently bendeth his hinder paſterns and anckles, and ſo lifteth up his fore-parts, that his belly and yard do appear, and in doing hereof the Rider muſt not bear his hand hard, but give him the bridle, that ſo he may do it willingly and with greater grace of the beholders.

There are ſome which teach Horſes to lift up themſelves by knocking their paſterns with a rod, which the Horſe underſtandeth as well as he doth his race, when he is stroke on the back by the Rider. *Xenophon.* And in teaching of a Horſe this feat, it muſt be obſerved, that he never have reſt untill he have learned it, and that at certain ſigns and tokens, he be taught of his own accord to perform divers and ſundry geſtures: but if after long riding and copious labour, he begin to underſtand his Maſters pleaſure, and riſe twice or thrice together, then you may give him the rains, nothing doubting but that he underſtandeth and will be obedient to the pleaſure of the Rider. And in this kinde he is accounted the beſt careering Horſe, which will riſe high and ofteneſt together; neither is there any quality ſo commendable in a Horſe as this, or that ſo draweth and (as it were) ſo impriſoneth the eyes of old and young, and other beholders, for which cauſe Martial Horſes for ſervice of War, are to be inſtructed herein; and thus much for this Horſe.

Of load or Pack-horſes.

WHere they keep Horſes in herds and flocks, they have ſome which are not fit for the ſaddle, nor for the wars, and therefore are to be employed for the carrying of burthens, or to the Cart; although (as *Feſtus* ſaith) Mules were firſt uſed for carrying and draught; but foraſmuch as all Nations have not Mules, they are therefore inforced to uſe Horſes, and for this purpoſe the Geldings are much better then the ſtoned Horſes; wherefore the Countrey-men of moſt Nations take Horſes, for this purpoſe, after they be old, paſt breeding, or have ſome other blemiſh in winde or limb, whereby they are diſabled to travel under a man: for ſo great is the greedineſs of our age, that Horſes are not ſpared ſo long as they be able to live; according to the common proverb, (*Aſinis, equis, Mulis feriæ nullæ*) Horſes, Mules, and Aſſes, keep no Holy-days: where the Law of God concerning the Sabbath is not obſerved; for the nouriſhing of Horſes doth countervail the charges. Among theſe may be remembred thoſe little Nags called *Hinni*, and *Ginni*, ſpoken of already in the diſcourſe of Aſſes, whereof ſome are generated betwixt a Horſe and an Aſs, and others fall to be very little, through ſome ſickneſs which happeneth unto them in their dams belly: theſe are uſed with ſhorn manes according to the ſaying of *Propertius*: *huc mea detonſis aucta eſt Cynthia mannis*. They are uſed for pleaſure, to carry the young ſons of Noble-men and Gentle-men. There are alſo Horſes called ***Equi funales***, becauſe in their triumphs they were led with a halter next after the triumph.

Of Wilde-horſes, the Sea-horſe, and the Hart-horſe, called Hippelaphus.

IN the days of *Gordianus* there were brought to *Rome* forty wilde Horſes, and in the map of *Gordianus* Wood, there were pictured three hundred. They are called in *Latine*, *Equiferi*; and in *Greek*, *Hippagroi*, they abound in *Spain*, and in the *Alpes*, and in the Deſerts of *Æthiopia* there are many of them, which have two long venomous teeth ſtanding out of their mouth: they differ alſo in their hoofs from other Horſes, for they are cloven-footed like Harts, and they have a long mane growing all along their back to their tail: And if at any time the Inhabitants take them by gins and other ſlights, they fall ſo ſullen, that they abſtain from meat and drink, diſdaining to be kept in any ſervitude or bondage; the Wilde Horſes of *India* have but one horn: In the *Alpes* they are of an aſh-colour, with a black liſt down their backs. The wilde Horſes of *Scythia*, near the River *Hypanis*, are clean white. The wilde Horſes of *Syria* live in flocks and herds together, and in every herd they have one Captain or Maſter over the reſidue, and if it fortune that any of the younger Horſes leap upon a Mare, this Captain-horſe runneth after him, never giving over till he hath bit off his ſtones.

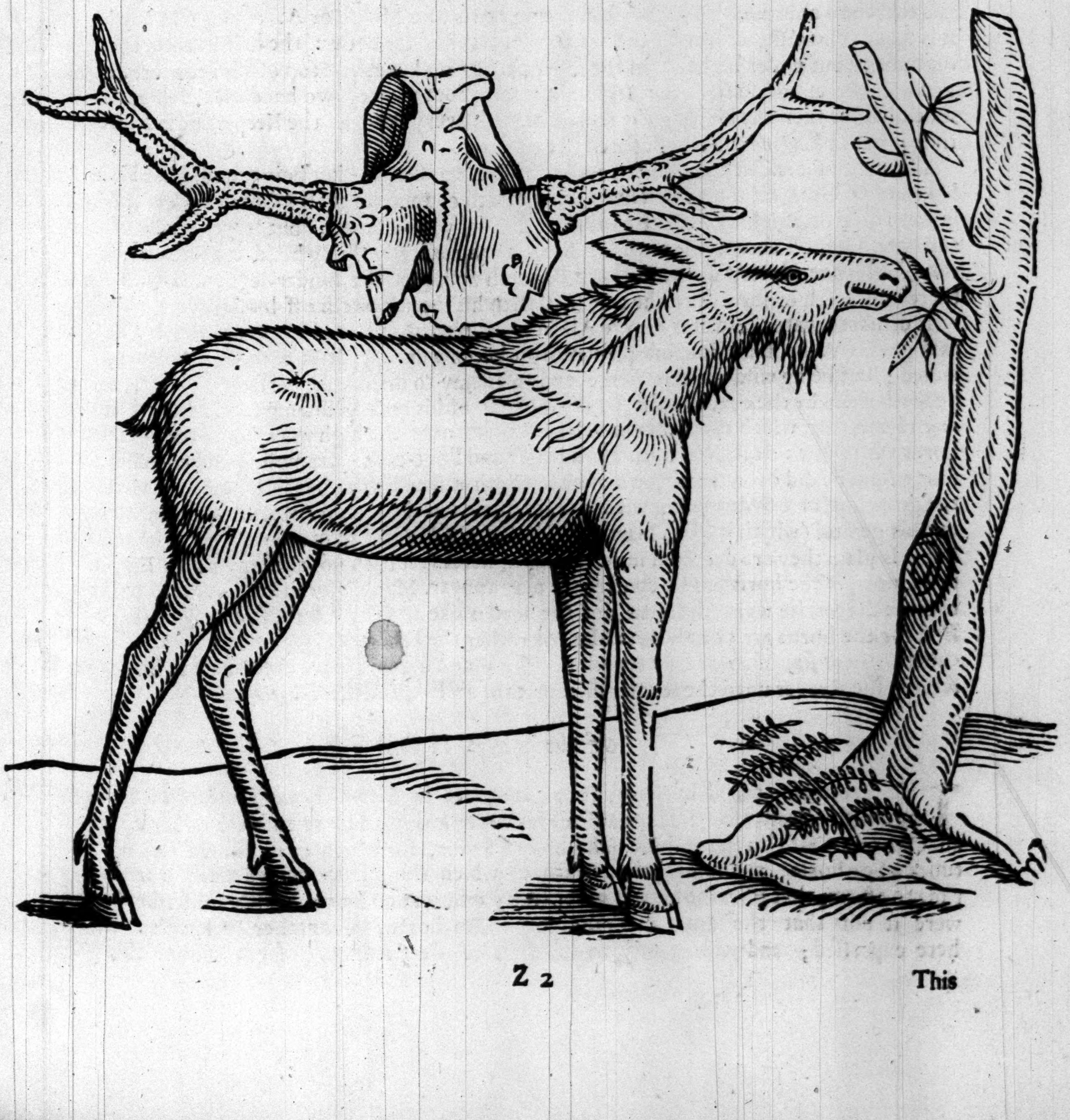
Oppianus.

Albertus.

There are wilde Horſes in *Bruſhia* which are like to other Horſes in all parts, excepting their backs, which are ſo ſoft and weak, that they cannot endure to be ſat upon, neither are they eaſily tamed, and the people of the Countrey eat their fleſh: In *Polonia* there is a kinde of wilde Horſe which hath horns like a Hart, and therefore I take it to be the ſame which is called *Hippelaphus*, whoſe picture is here deſcribed as it was taken here in *England*, by that learned Phyſitian Doctor *Cay*.

Ariſtotle.

The figure of HIPPELAPHUS.



THis beaſt was brought out of *Norway*, having a mixt form, betwixt a Hart and a Horſe, having a well compacted body, a long and lean leg, a cloven hoof, a ſhort tail, and in all parts you would judge him to be a Hart, but in his head and ears you would judge him to be a Mule, and in his horns a Roe, the upper lip hanging over the neather almoſt as much as an Elks; his mane like a Horſes, but thinner and ſtanding more upright, without other alteration from their ſhoulders to their tail, they have a like briſtling mane growing on the back-bone, as long as their other hair; a bunch under their chaps, and upon that a bunch or ſhaggy hair, the hair about their ſhoulders is more longer then ordinary, but their necks ſo ſhort, that they can neither drink their drink, nor eat their meat upon the ground, except they bend down upon their knees. The males in this kinde do only bear horns, and ſuch as do not grow out of the Crowns of their head, but as it were out of the middle on either ſide, a little above the eyes, .and ſo bend to the ſides: They are ſharp, and full of bunches like Harts, no where ſmooth but in the tops of the ſpeers, and where the veins run to carry nutriment to their whole length, which is covered with a hairy skin: they are not ſo rough at the beginning, or at the firſt proſſes, ſpecially in the fore-part, as they are in the ſecond, for that only is full of wrinckles: from the bottom to the middle they grow ſtraight, but from thence they are a little recurved; they have only three ſpeers or proſſes, the two lower turn away, but the uppermoſt groweth upright to heaven; yet ſometimes it falleth out (as the Keepers of the ſaid Beaſt affirmed) that either by ſickneſs, or elſe through want of food, the left horn hath but two branches: In length they are one *Roman* foot and a half, and one finger and a half in breadth, at the root two *Roman* palms. The top of one of the horns is diſtant from the top of the other three *Roman* feet and three fingers, and the lower ſpeer of one horn is diſtant from the lower of the other, two *Roman* feet meaſured from the roots: in ſubſtance and colour they are like to Harts horns, they weighed together with the dry broken ſpongy bone of the fore-head, five pound and a half, and half an ounce, (I mean ſixteen ounces to the pound:) they fall off every year in the month of *April*, like to Harts, and they are not hollow. The breadth of their fore-heads betwixt the horns is two *Roman* palms and a half, the top of the crown betwixt the horns is hollow on the hinder part, and in that ſiecel lyeth the brain which deſcendeth down to the middle region of the eyes.

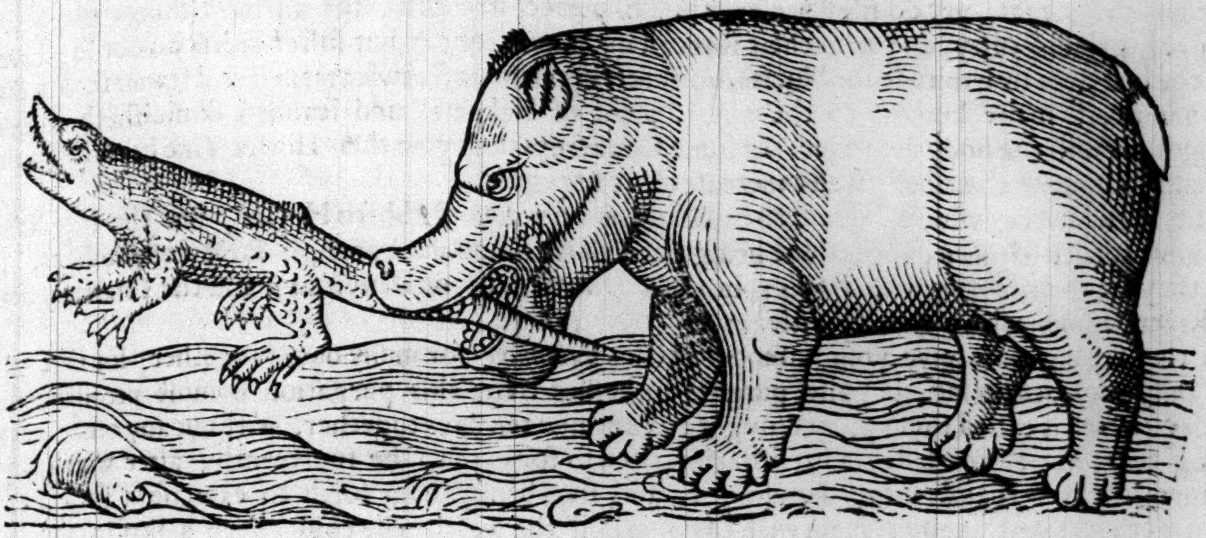
Their teeth are like Harts, and inwardly in their cheeks they grow like furrows, bigger then in a Horſe; the tooth riſing out ſharp above the throat, as it ſhould ſeem that none of his meat ſhould fall thereinto unbruiſed. This Beaſt in young age is of a Mouſe or Aſs colour; but in his elder age it is more yellowiſh, eſpecially in the extream parts of his body: the hair ſmooth, but moſt of all on his legs, but under his belly, in the inner part of his knee, the top of his neck, breaſt, ſhoulders, and back-bone, not ſo ſmooth: In height it was about twenty two handfuls and three fingers, being much ſwifter then any Horſe; the female beareth every year, as the Keeper ſaid in *Norway*, two at a time; but in *England* it brought forth but one.

The fleſh of it is black, and the fibres broad like an Oxes; but being dreſſed like Harts fleſh and baked in an Oven, it taſted much ſweeter. It eateth commonly graſs; but in *England* ſeldom after the faſhion of Horſes, which forbear hay when they may have bread; but leaves, rindes of trees, bread and oats, are moſt acceptable unto it. It reacheth naturally thirty hand breadths high, but if any thing be higher which it doth affect; it ſtandeth up upon the hinder-legs, and with the fore-legs there imbraceth or leaneth to the tree, and with his mouth biteth off his deſire.

It drinketh water, and alſo *Engliſh* Ale in great plenty, yet without drunkenneſs; and there were that gave it Wine, but if it drink plentifully it became drunk. It is a moſt pleaſant creature being tamed; but being wilde, is very fierce, and an enemy to mankinde, perſecuting men, not only when he ſeeth them by the eye, but alſo by the ſagacity of his noſe following by foot more certainly then any Horſe, for which cauſe they which kept them near the high ways, did every year cut off their horns with a ſaw: It ſetteth both upon Horſe and Foot-men; trampling and treading them underfoot whom he did over-match, when he ſmelleth a man before he ſeeth him, he uttereth a voice like the gruntling of a Swine being without his female: it doth moſt naturally affect a woman, thruſting out his genital (which is like a Harts) as if it diſcerned ſexes. In *Norway* they call it an *Elk*, or *Elend*, but it is plain they are deceived in ſo calling it, becauſe it hath not the legs of an Elk, which never bend, nor yet the horns, as by conference may appear. Much leſs can I believe it to be the *Hippardius*, becauſe the female wanteth horns, and the head is like a Mules; but yet it may be that it is a kinde of Elk, for the horns are not always alike, or rather the Elk is a kinde of Horſe-hart, which *Ariſtotle* calleth *Arrochoſius* of *Arraeotos* a region of *Aſſya*, and herein I leave every man to his judgement; referring the Reader unto the former diſcourſes of an Elk, and the *Tragelaphus*.

Of the SEA-HORSE.

THe Sea-horſe, called in *Greek*, *Hippotomos*, and in *Latine*, *Equus Fluviatilis*; It is a moſt ugly and filthy Beaſt, ſo called becauſe in his voyce and mane he reſembleth a Horſe, but in his head an Oxe or a Calf; in the reſidue of his body a Swine, for which cauſe ſome *Graecians* call him ſometimes a Sea-horſe, and ſometimes a Sea-oxe, which thing hath moved many learned men in our time to affirm, that a Sea-horſe was never ſeen; whereunto I would eaſily ſubſcribe, (*ſaith Bellonius*) were it not that the antient figures of a Sea-horſe, altogether reſembled that which is here expreſſed; and was lately to be ſeen at *Conſtantinople*, from whom this picture was taken It liveth for the moſt part in *Nilus*; yet is it of a doubtful life, for it brings forth and breedeth on the land, and by the proportion of the legs, it ſeemeth rather to be made for going, then for ſwimming: for in the night time it eateth both hay and fruits, forraging into corn fields, and devouring whatſoever cometh in the way; and therefore I thought it fit to be inſerted into this ſtory. As for the Sea-calf, which cometh ſometimes to land only to take ſleep; I did not judge it to belong to this diſcourſe, becauſe it feedeth only in the waters.



This picture was taken out of the *Coloſſus* in the *Vatican* at *Rome*, repreſenting the River *Nilus*, and eating of a Crocodile: and thus I reſerve the farther diſcourſe of this beaſt unto the Hiſtory of Fiſhes, adding only thus much, that it ought to be no wonder, to conſider ſuch monſters to come out of the Sea, which reſemble Horſes in their heads, ſeeing therein are alſo creatures like unto Grapes and Swords.

The *Orſean Indians* do hunt a Beaſt with one horn, having the body of a Horſe, and the head of a Hart. The *Æthiopians* likewiſe have a Beaſt, in the neck like unto a Horſe, and the feet and legs like unto an Ox. The *Rhinocephalus* hath a neck like a Horſe, and alſo the other parts of his body, but it is ſaid to breath out air which killeth men. *Pauſanias* writeth, that in the Temple of *Gabales*, there is the picture of a Horſe, which from his breaſt backwards is like a Whale. *Lampſacenus* writeth, that in the *Scythian* Ocean, there are Iſlands wherein the people are called *Hippopodes*, having the bodies of men, but the feet of Horſes; and *Lamia* hereafter to be declared, hath the feet of a Horſe, but in other things the members of a Goat: and thus much for the ſeveral kindes of Horſes, both for them that are properly ſo called, and alſo for any other, which like baſtards retain any reſemblance of nature with this Noble and profitable kinde of Beaſt.

Of the Diet of Horſes, *and their length of life.*

HAving thus diſcourſed of the kindes of Horſes, and their ſeveral accidents, and uſes both for War, and Peace, pleaſure, and neceſſity; now likewiſe it followeth, that we ſhould proceed to their diet, and manner of feeding: wherein we are firſt of all to conſider, that the natural conſtitution of a Horſe is hot and temperate. Hot, becauſe of his Levity, and Velocity, and length of life; temperate, becauſe he is docible, pleaſant, and gentle towards his Maſter and Keeper. He therefore that *Ruſſius.* will keep Horſes, muſt provide for them abundance of meat; for all other Cattel may be pinched without any great danger, only Horſes can endure no penury. *Varro* ſaith, that in feeding of Horſes, we muſt conſider three things; Firſt of all, what food the Countrey wherein we live doth yeeld: Secondly, when it muſt be given: Thirdly, by whom, but ſpecially the place of feeding Horſes is to be conſidered; for although Goats can live in the Mountains, better then in the green fields, yet Horſes live better in the green fields, then they can in the Mountains. For which cauſe when we chuſe paſture for Horſes, we muſt ſee that it be fat, ſuch as groweth in Meddows, that in the Winter time it may be Sunny, and in the Summer it may be open and cold, neither ſo ſoft under-foot, but that the Horſes hoofs may feel ſome hardneſs, for Horſes, Mules and Aſſes, do love well green graſs, and fruits, yet principally they grow fat with drinking; when they are in the ſtables, let them have *Palladius.* dry Hay. A Mare when ſhe hath foaled give her Barly, and generally at all times in the Winter ſeaſon *Bullimung*, or a mixture of all kindes of grain is fit for them in the houſe, according to theſe verſes of *Nemetian*:

Inde ubi pubentes calamos duraverit æſtas,
Lactentéſque urens herbas ſiccaverit omnem
Menſibus humorem, culmiſque armarit ariſtas,
Ordea tum, paleaſque leves, præbere memento.
Pulvere quinetiam, puras ſecernere fruges

Cura ſit, atque toros manibus percurrere equorum,
Gaudeat ut plauſu ſonipes letumque relaxet
Corpus, & altores rapiat per viſcera ſuccos,
Id curent famuli, comitumque animoſa juventus.

We

We have ſhewed already, that they muſt have ſtraw, or litter to ly upon, and **Pollux** doth ſet down the kindes of meats for Horſes, as barley, hay, or *French* wheat, rice, and hay; for hard and dry meat is fitteſt for Horſes, becauſe it doth not fill them with winde; but all green meat is the leſs approved, by reaſon of inflamation. Three-leaved graſs is alſo good for Horſes, eſpecially if they be young, for chaffe, hay, graſs, and oats, are their natural and pleaſing food: and although graſs be moiſt, yet in the young age of a Horſe, he delights in moiſt meats, for they ſtretch out his belly, and encreaſe his growth, but when he is elder, then ought he to be nouriſhed with dryer food; as chaff, Barley, Oats, and ſuch things. For although chaff, by reaſon of their dryneſs, make not a Horſe fat, yet do they preſerve him in perfect ſtrength, for all hard things which are diſſolved with difficulty, do retain their force of nutriment longer, but ſofter meats do not ſo; therefore the beſt dyet or habitude for Horſes, is, to retain the mean betwixt fatneſs and leanneſs. For fatneſs miniſtreth many humors to the nouriſhment of ſickneſs, and leanneſs diminiſheth natural ſtrength, maketh the body deformed. In ſome Countreys they give their Horſes Vine branches in the Autumn, to move their bellies, and increaſe their ſtrength.

Mathiolus.
Dioſcorides.

The herb *Medica*, which aboundeth in *Media*, is very nouriſhable to Horſes, but the firſt ſtalks are refuſed, ſaith *Ariſtotle*, the reſidue being watered with ſtinking water, is moſt commodious. In *Italy* they fat their Horſes with *Trifoly*; in *Calabria* with *Sulla*, or *Arthritica*; and the *Thracians*, near the River *Strymon*, with a green Thiſtle.

In the Spring time give your younger Horſes *Bullimung* for many dayes together, for that will not only make them fat, but alſo purge their bellies: for this purgation is moſt neceſſary for Horſes, which is called ſoyling, and ought to continue ten days together, without any other meat, giving them the eleventh day a little Barley, and ſo forward to the fourteenth; after which day, continue them in that dyet ten days longer, and then bring them forth to exerciſe a little, and when as they ſweat, anoint them with Oyl; and if the weather be cold, keep a fire in the ſtable: And you muſt remember when the Horſe beginneth to purge, that he be kept from Barley and drink, and give him green meat, or *Bullimung*, whereof that is beſt that groweth near the Sea ſide.

But if the Horſe go to ſoil in *April*, after five days, bring him forth, and waſh him all over with water, then wiping his hair from all wet and filth, and looſe hairs, pour upon him Wine and Oyl, preſſing it ſmooth upon his back, down to his skin; ſo let him be wiped all over again, and carryed into the ſtable, to be dieted with *Maſline*, or *Bullimung*, as before, except he be troubled with the Glanders, and then he muſt not feed on it in the day time, leſt through the heat of the Sun, he fall into the mangie, or into madneſs.

It is alſo requiſite, that while we feed our Horſes with green Corn, they be let bloud in the veins of the breaſt, and alſo cut in the roof of their mouths, that ſo thoſe places being emptyed which were ſtuffed with corruption, the vacuity may be repleniſhed with better bloud; a Horſe thus dyeted, ſhall not only live in more health, and free from ſickneſs, but alſo be more ſtrong to undergo his labour.

With the bloud that cometh out of him, mingled with Nitre, Vinegar, and Oyl, you ſhall anoint him all over, if ſo be he be ſubject to the Glaunders, or to the Mangie; and then keep him in the ſtable five days together, ſuffering no Curri combe to come upon him, untill the ſixt day, feeding him in the mean time with green Corn or *Bullimung*; and then bring him forth again, waſhing him all over with water, and rubbing him with a hard whiſp, untill the humor or moiſtures be wholly wiped off, and he fed as before fourteen days together.

If you pleaſe not to keep him in the ſtable, then in the Spring time, turn him out in ſome meddow, or green paſture, and there let him feed at his own pleaſure; for it hath been often proved, that ſuch a dyet hath recovered may ſick Horſes.

It is reported of the *Horotæ*, and *Gedruſii*, and men of *Freeſeland*, the *Macedonians*, and *Lydians*, do feed their Horſes with fiſhes: Likewiſe the *Pæonians* which inhabit about *Praſius* near the Mountain *Orbelus*, do feed their Horſes, and all Cattel which they yoak with fiſhes.

Concerning the drink of Horſes we have ſpoken elſewhere, and therefore we ſhall not need to ſay any thing of it here, except that the drinking much, and the Horſe thruſting his head in deep into the troubled water, is an unfallible ſign of his goodneſs; and the cuſtom of ſome is, for to give their Horſes maſhes made of water and corn ſod together, or elſe Bear, Ale or Wine, by drinking whereof, they encreaſe their ſpirits and ſtomach.

Albertus ſaith, that ſome to make their Horſes fat, take Snails, and beat them in pieces, ſo putting them into their meats, whereby they grow to a falſe fatneſſe, which is eaſily diſſolved. By eating of black Hellebor, Oxen, Horſes and Swine are killed: and thus much for the food of Horſes.

Concerning the voice of Horſes, the *Latins* call it *Hinnitum*, and the *Grecians*, *Phruma*, and *Phrumateſia*; but this is certain, that from their very foaling, the females have a ſhrill and ſharper voice then the males, which is fuller and broader, untill they be two year old, and after copulation their voice encreaſeth, ſo continuing untill they be twenty year old, after which time, it falleth and decreaſeth again.

The time of their life.

The length of a Horſes life (according to *Ariſtotle*) is eighteen or twenty years, and if they be well tended and regarded in their youth, it hath been found, that ſome have lived unto five and twenty, or thirty year old. The females live longer then the males, becauſe of their generation, for the immoderate luſt of Horſes, ſhortneth their dayes. And it hath been found that a Mare hath lived to forty or fifty years, and a Horſe to three and thirty: wherefore I do leave the relation of *Pliny* and *Athenæus*, to be cenſured by the Reader, who affirm, that Horſes in their time, lived threeſcore or ſeventy years.

Albertus alſo affirmeth, that a Souldier told him for a certain truth, that he knew a Horſe which lived till he was threeſcore years old, and at that age did ſervice in the field. And *Auguſt. Niphus* alſo affirmeth, that the Riders of *Ferdinand* the firſt, told him there was a Horſe in their Maſters ſtable of ſeventy year old. The age of a Horſe may be known by his teeth, and the *Perſian*, *Bohemian*, *Epirian*, and *Sicilian* Horſes, live longer then the *Spaniſh* or *Numidian*. In their years, the female never groweth after five, nor the male after ſix in height or length, ſo as the males are ſooner perfited in the womb then the females, on the contrary the females do ſooner grow to their perfection after their foaling then the Males.

The males have more teeth then the females, and in each ſex they which have feweſt teeth, live not ſo long, and in their old age their teeth grow white. Now their age is diſcerned by their teeth on this manner, the firſt four, that is two above and two beneath, be changed after they be thirty year old, and a year after the four next are changed in like manner, again after another year four more are changed, ſo that after four year and ſix moneths, he looſeth no teeth, except canine, which cometh again in the fift and ſixt year; ſo that afterwards their age cannot be diſcerned, becauſe in the ſeaventh year, they are all filled. Another unfaigned note of their age, is the hollowneſs of their temples, and their eye-lids beginning to wax gray, and their teeth hanging out of their mouths. They have alſo little blacks in the middle of their teeth. Some try the age of their Horſes, as a wiſe and learned man writeth, by conſidering twelve teeth, ſix above, and ſix beneath, for the old Horſes have longer and thinner teeth, which are black at the top, and there are certain broaches or wrinckles in their teeth, which being filled, the mark is ſaid to be out of their mouth.

Some try the age of their Horſes by their cheeks, for they pull up the ſkin from the bones, and if it will quickly fall back again into his former place, they take it for an aſſured token of the Horſes youth: but if it ſtand out and fall ſlowly down, then on the contrary, they judge the Horſe to be old, and thus much for the age and diet of Horſes.

Of the uſes of Horſe-fleſh, Mares-milk, and other parts.

THere are certain people in *Scythia*, which were called *Hippophagi*, becauſe they lived upon Horſe-fleſh; ſuch alſo were the *Sarmatians* and the *Vandals*: likewiſe in *Scythia* the leſſe, neer *Taurica Cherſonneſus*, the people do not only eat the fleſh of Horſes, but alſo their milk, and make Cheeſe thereof.

Athenæus alſo affirmeth, that the manner of the ancient *Perſians* was, upon the feaſts of their nativities to roaſt an Ox, an Aſſe, a Horſe, and a Camel whole, and ſo ſet them before their gueſts.

In like ſort, they eat Horſe-fleſh and Camels-fleſh at *Damaſcus*; and in *Polonia* wilde Horſes, eſpecially that part which groweth under the mane. The *Sarmatians* made meat of Millet-ſeed, and mingle it with Mares milk, or with bloud taken out of the veins of their legs, wherewithal they make puddings, and this is their chief food. So wikewiſe do the *Tartarians*, who having a Horſe ſick, cut off his Ulcer or wound, and ſo kill him and eat his fleſh. The *Gothes* alſo in the dayes of *Virgil* did drink the bloud of Horſes, as appeareth in theſe Verſes;

Mat. Michou.
Pau. Venetus.

Profuit incenſos æſtus avertere, & inter
Ima ferire pedis, ſalientem ſanguine venam:
Biſaltæ, quo more ſolent, acerque Gelonus,
Cum fugit in Rhodopen, atque in deſerta Getarum,
Et lac concretum cum ſanguine potat equino.

The Poets do alſo fain, that *Pelias* the Son of *Tirus* and *Neptune*, was educated by a Mare, and *Metabus* brought up his Daughter *Camilla* with Mares milk, becauſe ſhe was born wilde, he alſo bred her among the buſhes, according to theſe Verſes;

Hic natam in dumis, interque horrentia luſtra
Armentalis equæ mammis, & lacte ferino
Nutribat, teneris immulgens ubera labris.

The *Tartarians* drinke Mares milke, which they dreſſe like white wine, and call it *Chumis*, whereof *Paulus Venetus* rehearſeth this ſtory: The King of *Tartar*, ſaith he, nouriſheth above ten thouſand milk-white Horſes and Mares, and every year, upon the eight and twenty day of *Auguſt*, they obſerve a ſolemn feaſt, wherein the milk of theſe white Mares is dreſſed and ſet forth in comely veſſels.

Afterward the King taketh a bowl full thereof, and powreth it on the ground round about him, being ſo taught by his *Magitians*, to offer Sacrifice to the gods of his Countrey: For they perſwade him that the Gods lick up that milk ſpilt on the ground, and afterwards the King drinketh up the reſidue, and beſides him no body that day, except it be of the Kings linage, or of the Countrey of *Horiach* (for the people of that Countrey have liberty to taſt thereof that day) becauſe of a battle which once they obtained for the great *Cam*.

The property of this milk is to looſen the belly; and becauſe it is thin and hath no fat in it, therefore it eaſily deſcendeth, and doth not curdle in the ſtomach, and it is ſaid, that the *Scythians* can keep it twelve dayes together, therewithal ſatisfying their hunger, and quenching their thirſt. And thus much ſhall ſatisfie for the natural diſcourſes of Horſes: hereafter followeth the moral.

The moral diſcourſe of Horſes, *concerning Fictions, Pictures, and other deviſes.*

AND firſt of all for the moral dignity of Horſes, there is a celeſtial conſtellation called *Hippos*, according to theſe Verſes of *Aratus* thus tranſlated;

> *Huic Equus ille jubam quatiens fulgore micanti*
> *Summum contingit caput alvo ſtellaque jungens*
> *Una.* ———

The *Latins* call this ſtar *Pegaſus*, and they ſay that he is the Son of *Neptune* and *Meduſa*; who with ſtriking his foot upon a Rock in *Helicon* a mountain of *Bœotia*, opened a Fountain, which after his name was called *Hippocrene*. Others tell the tale in this ſort, at what time *Bellerophon* came to *Prætus* the Son of *Abas* the King of the *Argives*, *Antia* the Kings wife fell in love with her gueſt, and making it known unto him, promiſed him half her husbands Kingdom if he would lie with her, but he like an honeſt man abhorring ſo foul a fact, utterly refuſed to accompliſh the deſire and diſhoneſty of the luſtful Queen; whereupon ſhe being afraid leſt he ſhould diſcloſe it unto the King, prevented him by her own complaint, informing the King that he would have raviſhed her: when the King heard this accuſation (becauſe he loved *Bellerophon* well) would not give puniſhment himſelf, but ſent him to *Schenobeus* the Father of Queen *Antia*, that he in defence of his Daughters chaſtity might take revenge upon him, who preſently caſt him to *Chimæra*, which at that time depopulated all the coaſt of *Lycia*: but *Bellerophon* by the help of the Horſe *Pegaſus* did both overcome and avoid the monſter, and being weary of his life, perceiving that there was no good nor truth upon the earth, determined to forſake the world and flie to heaven: who coming neer to heaven, caſting down his eyes to the earth, trembled to ſee how far he was diſtant from it, and ſo his heart fainting for fear, fell down backward and periſhed, but his Horſe kept on his flight to heaven, and was there placed among the Stars by *Jupiter*. *Euripedes* telleth the tale otherwiſe, for he ſaith that *Chiron* the *Centaure* had a Daughter nouriſhed in the mountain *Pelius* which was called *Theas* and afterward *Hippe*, becauſe of her exceeding hunting on horſe-back, ſhe was perſwaded by *Æolus* (the Son of *Hellen*, a Nephew of *Jupiters*) to let him lie with her, whereupon ſhe conceived with childe, and when the time of her deliverance came, ſhe fled from her Father into the woods, for fear the loſs of her Virginity ſhould be known unto him; but he followed her to ſee what was the cauſe of his Daughters departure, whereupon ſhe deſired of the Gods that her father might not ſee her in travel, her prayer was granted, and ſhe after her delivery, was turned into a Mare, and placed among the Stars.

Others ſay that ſhe was a Propheteſſe, and becauſe ſhe revealed the counſels of the Gods, was therefore metamorphozed in that ſhape in the place aforeſaid. Others ſay, that becauſe ſhe gave over to worſhip *Diana*, ſhe loſt her firſt preſence. But to return to the firſt tale of *Bellerophon*, who after the death of *Chimæra*, growing proud for his valor attempted to flie to heaven, but *Jupiter* troubled his Horſe with a Fury, and ſo he ſhooke off his Rider, who periſhed in the field, *Alecus apo teſe aleſe*, becauſe of his errour: and *Pegaſus* was placed in heaven.

But to come nearer to the deſcription of the Poeticall Horſe, *Albertus Magnus* and ſome others ſay, that it is a Beaſt bred in *Ethiopia*, having the head and feet of a Horſe, but horned, and wings much greater then the wings of an Eagle, which he doth not lift up into the air like a bird, but only ſtretcheth them out when he runneth, whereby his only preſence is terrible to all creatures, unto whom he is enemy, but eſpecially to Men. But for the truth hereof (although *Pliny* and ſome others ſeem to affirm as much) yet will I ſet down nothing for truth and certainty, becauſe as the Poets call every ſwift Horſe *Volucres*, and *Alipedes*; ſo the errour of that figure, hath rather given occaſion to the framing of this new Monſter *Pegaſus*, then any other reaſonable Allegory.

Likewiſe I know no cauſe why the Poets ſhould fain, that *Ceres* was turned into a Mare, and hid her ſelf in the herds of *Oncius*; *Neptune* falling in love with her, followed her to thoſe fields, and perceiving that he was deceived, turned himſelf alſo into a Horſe, and ſo had to do with her, whereat *Ceres* was grievouſly offended, and fell into a great fury, for which cauſe ſhe was called *Erinnys*: yet afterwards ſhe waſhed her ſelf in the River *Ladon*, laying aſide all her rage and fury, at the fulneſs of time ſhe brought forth *Arion*.

And the *Arcadians* alſo had a certain Den, wherein they had a great remembrance of this raviſhment of *Ceres*, ſitting in a Den, wherein they ſay ſhe hid her ſelf from all creatures, and whereunto they offer divine worſhip. They picture her in a Colts skin, ſitting like a woman in all parts, with a long garment down to her ancles, but the head of a Horſe with the pictures of many Dragons, and other ſuch wilde beaſts, holding in one of her hands a Dolphin, and in the other a Dove.

By all which it is not uneaſie for every man to know & conceive their meaning, that plenty of food ſignified by *Ceres*, doth not only maintain Men, Fowls, Beaſts and Fiſhes, but alſo the immoderate uſe thereof draweth men to inordinate luſt and concupiſcence, and that the Gods of the Heathen were more rather to be accounted Beaſts then Men.

Diana alſo among the *Arcadians* was called *Eurippa*, for the finding out of thoſe Mares which *Ulyſſes* had loſt: which *Ulyſſes* erected a ſtatue for *Neptune* the great Rider, and they ſay that *Hippolytus* being torn in pieces by Horſes, through the love of *Diana*, and skill of *Æſculapius*, by the vertue of certain herbs he was reſtored unto life again: Whereupon *Jupiter* being ſore vexed and angry with *Æſculapius* for ſuch an invention, deluding as it were the fury of the Gods, killed him with lightning, and thruſt him down into hell, becauſe no wretched man would fear death if ſuch deviſes might take place: which fact *Virgil* deſcribeth in theſe Verſes:

At Trivia Hippolytum ſecretis alma recondit
Sedibus, & nymphæ Ægeriæ nemorique relegat,
Solus ubi in ſilvis Italis ignobilis ævum
Exigeret, verſoque ubi nomine Virbius eſſet.
Unde etiam Triviæ templo luciſque ſacratis
Cornipedes arcentur equi, quod littore currum
Et juvenem monſtris pavidi effudere marinis.

The Poets alſo do attribute unto the night, black Horſes, and unto the day white. *Homer* ſaith, that the names of the day Horſes are *Lampus* and *Phaethon*; to the Moon they aſcribe two Horſes, one black and another white; the reaſon of theſe inventions for the day and the night is, to ſignifie their ſpeedy courſe or revolution by the ſwiftneſs of Horſes, and of the darkeneſs of the night by the black Horſes, and the light of the day by the white; and the Moon which for the moſt part is hid and covered with earth, both increaſing and decreaſing, they had the ſame reaſon to ſignifie her ſhadowed part like a black Horſe, and her bright part by a white one.

Textor.

Heliodorus.

The like Fiction they had of *Hecate*, whom *Auſonius* calleth *Tergemina*, becauſe ſhe is deſcribed with the head of a Horſe, a Dog, and a wilde Man, the Horſe on the right hand, the Dog on the left hand, and the wilde Man in the middle: whereby they declared how vulgar, illiterate, and uncivilized men, do participate in their conditions, the labours and envie of brute beaſts.

We may alſo read in the Annales of *Tacitus*, that in his time there was a Temple raiſed to Equeſtrial fortune, that is, for the honour of them which managed Horſes to their own profit, and the good of their Countrey, and that *Fulvius* the *Prætor* in *Spain*, becauſe he obtained the victory againſt the *Celtiberians*, by the valour and diligence of his Horſe-men, was the firſt that builded that Temple. Likewiſe, there was another Temple in *Bœotia* for the ſame cauſe dedicated unto *Hercules*.

Cælius.

The ancient *Pagans* call the God of Horſes *Hippona*, as the God of Oxen *Bubona*. It is alſo apparent, that many Nations uſe to ſacrifice Horſes, for at *Salentinum* a Horſe was caſt alive into the fire and offered to *Jupiter*. Likewiſe the *Lacedemonians* ſacrificed a Horſe to the winds. At *Rome* alſo they ſacrificed a Horſe to *Mars*, and thereof came the term of *Equus October*, which was ſacrificed every year in *October*, in *Campus Martius*. This Horſe was often take out of a Chariot, which was a Conqueror in race, and ſtood on the right hand; as ſoon as he was killed, ſome one carried his tail to a place called *Regia*, and for his head there was a continual combate betwixt the inhabitants of the ſtreets, *Suburra*, and *Sacravia*, which of them ſhould poſſeſſe it; for the *Suburrans* would have faſtened it to the wal of *Regia*, and the *Sacravians* to the Tower *Mamillia*.

Giraldus.

The reaſon why they Sacrificed a Horſe, ſome have conjectured becauſe the *Romans* were the off-ſpring of the *Trojans*, and they being deceived by a Horſe, their poſterity made that Sacrifice for puniſhment of Horſes: but it is more reaſonable, that becauſe they Sacrificed a conquering Horſe, they did it only for the honour of *Mars* (the God of victory) or elſe becauſe they would ſignifie, that flying away in battle was to be puniſhed by the example of Sacrificing of a ſwift Horſe.

Feſtus.

The *Carmani* did alſo worſhip *Mars*, and becauſe they had no Horſes to uſe in War, they were forced to uſe Aſſes, for which cauſe they Sacrificed an Aſſe unto him. There is another fable amongſt the Poets, that the *Methimnæans* were commanded by the Oracle to caſt a Virgin into the Sea to *Neptune*, which they performed: now there was a young man whoſe name was *Ennalus*, which was in love with the ſaid Virgin, and ſeeing her in the Waters, ſwum after her to ſave her, but both of them were covered with the waters of the Sea; yet after a certain ſpace *Ennalus* returned back again, and brought news that the Virgin lived among the Pharies of the Sea, and that he after that he had kept *Neptunes* Horſes, by the help of a great wave eſcaped away by ſwimming; for the Poets fain that *Neptunes* Chariot was drawn by Horſes of the Sea, according to theſe Verſes of *Gillius*;

Non aliter quotiens perlabitur æquora curru
Extremamque petit Phœbæa cubilia Tethyn
Frænatis Neptunus equis ———

Idolatry by the pictures of Horſes.

They alſo ſaign that the Sun is drawn with two ſwift white Horſes, from whence came that abomination, that the Kings of *Judea* had erected Horſes and Chariots in honour of the Sun, which were ſet at the entrance of the Temple of the Lord; which Horſes were deſtoyed by *Joſias*, as we read in holy Scripture. And the manner of their abomination was, that when they did worſhip to the Sun, they road upon thoſe Horſes from the entrance of the Temple to the chamber of *Nethan-melech*. The *Perſians* alſo Sacrificed a Horſe to *Apollo* according to theſe Verſes of *Ovid*:

Munſter.

Placat equo Perſis, radiis Hyperiona cinctum,
Ne detur ſceleri victima tarda deo.

And for this cauſe the *Maſſagetes* ſacrificed a Horſe (the ſwifteſt of all Beaſts) unto the Sun, the ſwifteſt of all the Gods. *Philoſtratus* alſo recordeth, that *Palamedes* gave charge to the *Grecians* to Sacrifice to the Sun riſing a white Horſe. The *Rhodians* in honor of the Sun did caſt yearly away into the Sea, the Chariots dedicated to the Sun, in imagination that the Sun was carryed about the World in a Chariot, drawn by ſix Horſes.

The ceremony of the *Perſians* going to war.

As the Army of the *Perſians* did proceed forward on their journey, the fire (which they did call Holy and Eternal) was lifted up on ſilver Altars; preſently after this, there followed the Wiſe-men, and after thoſe Wiſe-men came 165 young men, being cloathed with as many red little garments as there are dayes in the year: Inſtantly upon the ſame, came the holy Chariots of *Jupiter*, which was drawn by white Horſes; after which, with a reſplendent magnitude the Horſe of the Sun was ſeen to appear (for ſo it was called) and this was the manner of their Sacrifices.

Cælius.

The King of *Indians* alſo (as is ſaid) when the dayes began to wax long, he deſcended down to the River *Indus*, and thereunto ſacrificed black Horſes and Buls; for the Buls in ancient time were conſecrated to the Rivers, and Horſes alſo were thrown thereinto alive, as the *Trojans* did into *Xanthus*.

Varrinus.
Strabo.

The *Veneti* (which worſhiped *Diomedes* with ſingular honour) did Sacrifice to him a white Horſe: when the *Thebanes* made war on the *Lacedemonians*, it is ſaid that *Cædaſus* apeared in a viſion to *Pelopidas*, one of the *Thebane* Captains, and told him that now the *Lacedemonians* were at *Leuctra*, and would take vengeance upon the *Thebanes*, and their Daughters; Whereupon *Pelopidas* to avert that miſchief, cauſed a young foal to be gallantly attired, and the day before they joyned battle, to be led to a Sepulcher of their Virgins, and there to be killed and ſacrificed.

The *Theſſalians* obſerved this cuſtome at their marriages and nuptial Sacrifices, the man took a Horſe of War armed and furniſhed, which he led into the Temple; after the Sacrifice ended he delivered the rains of the Bridle into the hands of his Wife, who led the ſame Horſe home again: but for what ſignification or cauſe this rite was obſerved, *Ælianus* which relateth the ſtory ſheweth not, but ſaith he referreth himſelf to the *Theſſalians* to declare their own reaſons of this obſervation. And thus much ſhall ſuffice concerning the Sacrificing of Horſes.

Plutarch.

The burial of Horſes.

Another moral-honour done unto them was their burial; For we have ſhewed already that *Volucer* the Horſe of *Verus* the Emperour was honourably buried, the Mares of *Cinon* which had won three games at *Olympus*, were likewiſe interred neer his own body. The *Scythians* at the burial of their Kings uſed for to ſtrangle one of his harlots, his cupbearer, his Cook, his Horſe-keeper, his Meſſenger, and alſo Horſes and other Cattle; and after a year they do this the ſecond time; taking fifty of his deareſt ſervants which were natural *Scythians* and ſtrangled them; likewiſe fifty of his beſt Horſes, out of whoſe bellies they pull out their bowels and guts, and filling their bellies up again with chaffe, they ſow them up: then make they half an arch upon two poſts ſtanding upright, and likewiſe the other half upon two other poſts over the Kiugs grave; likewiſe faſtening in the earth divers other ſharp poſts upon which they put the fifty Horſes, ſo faſtening them with thick pieces of timber all along their neck and back, ſo that the ſhoulders of the Horſes reſt upon the fore-arch and their bellies on the hinder, their legs ſtanding upward, then bridle they the Horſes, and ſtretch forth the rains of their bridles unto the poſts of the earth, afterwards upon every one of the dead Horſes they lay a dead man, putting a ſtake through his back out of his neck, and the neather part of the ſaid ſtake they faſten in the poſt, which pierceth or goeth through the Horſe; and thus having compaſſed about the grave of their King, with ſuch Horſes and Horſemen, they depart, leaving both the one and the other to the conſumption of nature, and after this manner did they bury all their Kings.

Dion.

Adrian buryed his Hunting Horſe, *Ennomaus* his Mares, *Partheria* and *Eripha*. Likewiſe *Miltiades*, *Evagoras*, and *Auguſtus* the Emperour. At *Agrigentum* alſo there are many *Pyramides* erected upon the Sepulchres of Horſes. And thus much ſhall ſuffice for the burial of Horſes.

We have ſhewed you already how Men and Women have been transformed into Horſes, according to the fiction of the Poets, as of *Saturne*, *Jupiter*, *Neptune*, *Ceres*, *Hippes*, and *Ocyrhoes* the Daughters of *Chiron*. In like ſort there have been predictions or oſtentations of things to come, taken from a Wolf, a Fox, a Serpent, and a Horſe, which were called *Auſpicia Pedeſtria*.

Ælianus.
Pliny.
Feſtus.
Predictions or Auguriſms by Horſes.

Dreams alſo have been declared by Horſes, for *Publius Vatinius* in the *Macedonian* war, coming towards *Rome* in the night time, ſuppoſed he ſaw two young men of excellent beauty to meet him, and tell him that *Perſes* the King was taken by *Paulus*, which thing he declared to the Senate, but was by them put into priſon as a contemner of the Majeſty and honour of that Captain, but afterwards it appeared by the letters of *Paul* that *Perſes* was taken that very day; whereupon *Vatinius* was delivered out of Priſon, and rewarded with land and liberty.

It alſo appeareth that the ſame day that *Caſtor* and *Pollux* waſhed away the ſweat of themſelves and their Horſes in the lake of *Juturna*, that they watched for the ſafety of the *Roman* Empire, and their Temple which was joyned to the ſame fountain being faſt locked, upon a ſuddain flew open without the hand of man.

Valer. Max.

Æneas alſo in *Virgil* ſaith, that he knew war would follow by the appearance of four Horſes, which in a green field ſet upon a whole Campe, whereupon in *Virgil*, he ſpeaketh thus to *Anchiſes*.

Quatuor hic, primum omen, Equos in gramine vidi
Tondentes campum late, candore nivali.
Et pater Anchiſes, Bellum O terra hoſpita portas;
Bello armantur equi, Bellum hæc armenta minantur.
Sed tamen iidem olim curru ſuccedere ſueti
Quadrupedes, & fræna jugo concordia ferre;
Spes eſt pacis, ait.——

Lucan alſo ſpeaketh to the ſame purpoſe that Horſes preſage war;

Primus ab æquorea percuſſis cuſpide ſaxis
Theſſalicus ſonipes bellis feralibus omen
Exiluit——

Alexander alſo writeth, that the *Germans* were wont to bring up white Horſes which were never uſed to labour, by whoſe neighing they were forewarned of wars, and of other ſtrange events. It is vulgarly known how *Darius* came to the Kingdom of *Perſia*, after it was agreed amongſt the ſeven Princes, that he whoſe Horſe did firſt neigh in the morning in a place appointed, ſhould be ſaluted King, *Ebores* his rider in the night time took one of the Mares which he knew his Maſters Horſe loved, and led her into the Suburbs, and there tied her, afterward he brought thither *Darius* his Horſe, and led him about her two or three times, and at length ſuffered him to cover her, and ſo led them both away together. In the next morning the Princes met as ſoon as day brake, and road up and down the Suburbs, until at laſt they came to the place where the Mare of *Darius* was tyed the night before, whereunto the Horſe of *Darius* ran neighing ſtrongly, and preſently it thundred and lightned in a clear day: whereupon the reſidue of the Princes alighted from their Horſes, and did reverence to King *Darius*, who by divine appointment was thus advanced to the Scepter.

Although there be ſome that ſay *Ebores* by handling of a Mares genital and keeping his hand warm, untill they came to the place aforeſaid, there ſtroking the Noſtrils of his Maſters Horſe, cauſed him thus to neigh and win the Kingdom; yet I rather incline to the former opinion which was related by *Herodotus* in his *Thalia*.

There have alſo been Horſes of ſtrange faſhions, for as we have ſhewed already, that a Mare did bring forth a Hare, ſo alſo (*Livie* ſaith) an Ox did bring forth a Foal. *Nero* did ſhew certain *Hermaphrodite* Mares, wherewithal his Chariot was drawn, which was a thing worth the ſight, that the Monarch of the world ſhould ſit upon Monſters.

Of Monſter Horſes.

Julius Cæſar had a Horſe which had cloven hoofs like a Mans fingers, and becauſe he was foaled at that time when the Sooth-ſayers had pronounced that he ſhould have the government of the world, therefore he nouriſhed him carefully, and never permitted any man to back him but himſelf; which afterwards he dedicated in the Temple of *Venus*, for he conceived that ſuch a ſtrange beaſt bred in his own flock, was a prediction unto him of great honour. The *Palatine* of *Vilva* had a Horſe foaled with five legs, and *Henry* the *Count-Palatine* had likewiſe a Horſe with ſix legs. Thus much may ſuffice for the monſter Horſes.

Pliny.
Dion.
Cælius.

In the next place it is good to enquire what the *Centaures* are, who are deſcribed by the Poets to have their forepart like men, and their hinder part like Horſes, the occaſion whereof is thus related by *Pindarus*: that *Centaurus* the Son of *Ixion*, committed buggery with the Mares of *Magnetia*, under the mountain *Pelius*, from whence came that monſtrous birth in the upper part reſembling the Father and in the neather the mother. Theſe ſaith he poſſeſſed the Mountains and Deſert places of *Theſſaly*, being given to all manner of Latrociny and Deprædation. They were called alſo *Hippocentauri*: And ſome ſay that they were firſt of all nouriſhed by the Nymphes in the mountain *Pelius*, who afterwards being the firſt that tamed Horſes, were thought to be half Men, and half Horſes, becauſe they were ſeen backward, and from hence came the fable that they were tamed by

Of Centaures.

Hercules, which was one of his greateſt labours: But yet that no man may wonder or think it impoſſible that ſuch monſtrous creatures ſhould have exiſtence in nature, theſe authorities following may perſwade ſufficiently.

Plutarch in his Banket of Wiſemen, affirmeth, there was a Horſe-keeper which brought into the houſe of *Periander* an Infant or rather a Monſter which he had got upon a Mare, which had the head, neck, hands and voice of a childe, and the other parts like a Horſe, *Diocles* preſently judged it to be a Monſter, and ſignified contentions and ſtrifes in the world. But *Thales* told *Periander* he was of another opinion, namely, that it was no Monſter, but a meer natural birth from ſuch a copulation, and therefore adviſed *Periander*, that either he ſhould keep no Riders, or elſe let them have Wives.

Claudius Cæſar alſo writeth, that in the time of his reign there was ſuch a one born in *Theſſaly*, which dyed the ſame day it was born: and *Pliny* that he afterwards ſaw it ſeaſoned in hony, brought out of *Egypt* to be ſhewed to the Emperor. Theſe *Centaures*, *Homer* calleth *Fera*, that is, *Fere*, wilde perſons The *Lapithæ* and the *Centaures* are ſaid to be very like the one to the other, and were alſo once very loving, but they fell afterwards to deadly war, by reaſon the *Centaures* in a banket being drunk, offered to raviſh the females of the *Lapithæ*, for which cauſe the *Lapithæ* ſlew them in their jealouſie, whereon fell a mortal war: whereby the Poets ſignifie how intemperancy in Men and Beaſts doth not only bring with it other ſins, but alſo cauſeth much ſlaughter. And ſo I conclude the ſtory of *Centaures*, holding it poſſible that ſuch ſhould be generated by unclean and natural copulation, but unpoſſible that they ſhould live long after birth, and therefore the *Centaures* of the Poets are nothing elſe but men ſitting on Horſeback, miſtaken for one entire creature which were divided, and ſo conclude with the Verſe of *Horace*:

Humano Capiti cervicem pictor Equinam
Jungere ſi velit.——
Hoc monſtrum puto Centaurus foret.

Of the ſtatues and figures of Horſes.

Pollux.

IT was no ſmall dignity that the ancient *Cephalenes* did ſtamp their money with the picture of a Horſe, for ſurely from them it came, that coin was firſt of all called currant, becauſe of the image of a ſpeedy Horſe, wherewithal it was imprinted. *Textor* alſo writeth, that amongſt the ancients there was a cuſtom to make the Charcter of a Horſe in the forehead of a bondſlave; there was alſo images of Horſemen and Horſes renowned in many Countries for the honour of both, ſuch were the ſtatues of the *Amazons* (cal'd *Hippiades*) who by *Lyſias* the Orator are ſaid to be the firſt that ever backed Horſes: Such was the ſtatue of *Clælia*, *Quintus Martius*, *Tremulus*, *Domitianus*, and many other both Men and Women: for the *Romans* had the Equeſtrial ſtatues in great reverence and ceremony, no doubt in imitation of the *Grecians*, but with this difference, that they pictured none but the ſwift Horſes, but the *Romans*, Horſes and Chariots, and from hence came the cuſtome to have Chariots in triumph.

But this cuſtome to have ſix Horſes in a Chariot was brought in laſt of all by *Auguſtus*. *Ariſtodemus* pictured the Chariots and Wagoner. *Piſicrates* the woman *Pitho*, with a Wagon. *Euthycrates*, the Son of *Lyſippus* expreſſed the Equeſtrial combate at the Oracle of *Trophonium* with ſingular art, alſo many Chariots of *Medea*, the Horſe and his carriage. There were alſo earthen Chariots at *Rome* in the porch of *Jupiters* Temple, as we have ſhewed before in the diſcourſe of Chariots.

Amianus.

When *Conſtantinus* the great took a view of the City of *Rome*, and paſſing from place to place, came at length to *Forum Trajani*, the moſt exquiſite building of all the world, he ſtood amazed at the admirable frame of Giants which were lineally deciphered therein, whereof deſpairing to imitate any part of that work, he choſe only to erect the picture of ſuch a Horſe and Prince, as in the middle of the ſame was erected in remembrance of *Trajane*, and ſo much he intimated to his followers: cloſe by him ſtood that Princely *Hormiſda* (a *Perſian*) who made the Emperour this anſwer, *Ante imperator ſtabulum tale condi jubeto ſi vales*: *Equus quem fabricare diſponis ita late ſuccedat ut iſte quem videmus*: O Noble Emperour before you make ſuch a Horſe, firſt of all build ſuch a ſtable; that your work in all parts may be correſpondent to this which you propoſe unto your ſelf to imitate.

Metellus the *Macedonian* raiſed two porches which were compaſſed about with two Horſes, without inſcription or dedication, which now are compaſſed with the porches of *Octavia*, and the row of Equeſtrial ſtatues in the front of the ſaid buildings, now the greateſt ornament of that place, be alſo brought out of *Macedonia*. And it is ſaid that *Alexander* the great cauſed *Lyſippus* (that ſingular workman) to frame the pictures of all thoſe Knights which in his company were ſlain at the River *Granicum*, and alſo to place his own picture among them.

In the City of *Rome* there are two mountains called *Equilini*, in one of them are the bathes of *Diocletian*, and the great Marble Horſes, with two men half naked, holding their rains, being moſt ſingular wormanſhip, whereof one hath this inſcription in *Latin* letters, *Opus Praxitelis*, the work of *Praxiteles*; the other *Opus Phidiæ*, the work of *Phidias*: and it is clear, that they were brought thither by *Tyridates* King of *Armenia*, for whoſe entertainment *Nero* cauſed the Theatre of *Pompey* to be covered all over with gold in the ſpace of one day. The ſtory of the *Trojan* Horſe is vulgarly known, which is alſo called *Equus Durateus*, or *Dureus*, wherein the *Grecian* Princes hid themſelves, when they took *Troy*, according to theſe Verſes;

Sipontinus.

Nec cum durateus Trojanis Pergama partu
Inflammaſcit Equus nocturno Grajugenarum.

The truth whereof ſtandeth thus, The *Grecians* making ſhew that they had vowed a vow unto *Pallas*, framed a Horſe of ſo great bigneſs, that it could not be taken into *Troy*, except the gates were pulled down; and this they placed hard to the wals of *Troy*: *Sinon* (the counterfeit runnagate) being then within the wals among the *Trojans*, perſwaded them to pull down their wals and pull in that wooden Horſe; affirming that if they could get it, *Pallas* would ſtand ſo friendly to them that the *Grecians* ſhould never be able to move war againſt them: wherefore they pull down their gates, and part of their wall, and by that means do bring the Horſe into the City: while the *Trojans* were thus revelling and making merry with themſelves, and not thinking of any harm might enſue upon them, the leaders of the *Grecian* Army who by deceit all this while kept themſelves cloſe hid, (ever ſince which time the *Grecians* are tearmed of all Nations deceitful) on a ſuddain roſe out of their lurking places and ſo going forward invaded the City, being deſtitute of any defence, and by this means ſubdued it.

Others are of opinion, that the Poets fiction of the *Trojan* Horſe, was no other but this, that there was a mountain neer *Troy* called *Equus*, and by advantage thereof *Troy* was taken, whereunto *Virgil* ſeemeth to allude, ſaying;

Inſtar montis Equum divina Palladis arte
Ædificant. ———

For they ſay that *Pallas* and *Epeus* made the Horſe, and therefore I conjecture, that the *Trojan* Horſe was nothing elſe but an engine of War, like unto that which is called *Ariet*: For *Pauſanias* ſaith, that *Epeus* was the inventer thereof. And *Higinus* ſaith, that the *Trojan* Horſe was *Machina oppugnatoria*, a deviſe of war, to overthrow the wals.

Of this Horſe there was a brazen image at *Athens* in *Acropolis*, with this inſcription, *Charidemus, Fuangeli filius cælenatus dicavit.* When *Alexander* looked upon his own picture at *Epheſus* which *Apelles* had drawn with all his skill, the King did not commend it according to the worth thereof: It fortuned that a Horſe was brought into the room, who preſently neighed at the picture of *Alexanders* Horſe, ſmelling unto it as to a living Horſe, whereat *Apelles* ſpake thus to the King;

Ho meni Hippos voice ſou graphicoteros cata polu.

That is to ſay, The Horſe is a better diſcerner of truth then you.

There was one *Phormis* which went from *Mænalus* in *Arcadia* into *Sicilia*, to ſerve *Gelon* the Son of *Dinomenes*, under whom and his brother *Hiero* he aroſe to great eſtate of wealth, and therefore he gave many gifts to *Apollo* at *Delphos*, and made two brazen Horſes with their riders at *Olympia*, ſetting *Dioniſius* the *Grecian* upon one, and *Simon Egineta* upon the other.

Æmilius Cenſorinus (a cruel Tyrant in *Sicilia*) beſtowed great gifts upon ſuch as could invent new kinde of torments; there was one *Aruntius Paterculus*, hoping to receive from him ſome great reward, made a brazen Horſe, and preſented it to the Tyrant: to include therein ſuch as he ſhould condemn to death: at the receipt whereof *Æmilius* which was never juſt before, firſt of all put the Author into it that he might take experience how curſed a thing it was to miniſter unto cruelty.

Apelles alſo painted *Clytus* on Horſe-back haſtening to war, and his Armour-bearer reaching his helmet unto him, ſo lively, that other dumb beaſts were affraid of his Horſe. And excellent was the skill of *Nealces*, who had ſo pictured a Horſe foaming, that the beholders were wont to take their handkerchefs to wipe it from his mouth. And thus much for the moral uſes of Horſes.

Of the ſeveral diſeaſes of Horſes *and their cures.*

SEeing in this diſcourſe I have principally aimed at the pleaſure, delight, and profit of *Engliſh-men*, I have thought good to diſcourſe of the diſeaſes of Horſes and their cures in the words of our own Countreymen, M. *Blundevile*, and M. *Markham*, whoſe works of theſe matters are to be recorded like the *Iliads* of *Homer* in many places and ſeveral Monuments, to the intent that envy of Barbariſm may never be able to bury them in oblivion, or neglect to root them out of the world; without the loſſe of other memorable labours.

Wherefore good Reader, for the enſuing Tractate of diſeaſes and cures compiled by them, after that I had read over the labours of *C. Geſner*, and compared it with them, finding nothing of ſubſtance in him, which is not more materially, perſpicuouſly, profitably, and familiarly, either extracted or expreſſed by them, in a method moſt fitting this Hiſtory, I have thought good to follow them in the deſcription of the diſeaſe and the remedy; firſt (according to time) declaring them in the words of *M. Blund.* and afterwards in the words of *M Markham*, methodically one after the other, in the ſame place: wherewithal I truſt the living authors will not be diſpleaſed, that ſo you may with one labour examine both; and I hope, that neither they, nor any of their friends or Scholars ſhall receive any juſt cauſe of offence, by adding this part of their ſtudies to our labours, neither their books imprinted, be any way diſgraced or hindered, but rather revived, renobled, and honoured. To begin therefore (ſaith Maſter *Blundevile*) after the diſcourſe of the nature of a Horſe followeth thoſe things which are againſt nature, the knowledge whereof is as needfully profitable as the other. Things againſt nature be thoſe whereby the healthful eſtate of a Horſes body is decayed, which are in number three; that is, the cauſes, the ſickneſs, and the accidents; of the two firſt in order, and the other promiſcuouſly as need requireth.

Of cauſes and kinds thereof.

Blundevile. The cauſes of ſickneſs be unnatural affects, or evill diſpoſitions preceding ſickneſs, and provoking the ſame, which of themſelves do not hinder the actions of the body, but by means of ſickneſs coming betwixt. Of cauſes, ſome be called internal, and ſome external. Internal be thoſe that breed within the body of the Beaſt, as evil juice. External be thoſe that chance outwardly to the body, as heat, cold, or the ſtinging of a Serpent, and ſuch like. In knowing the cauſe of every diſeaſe, conſiſteth the chief skill of the Farriar. For unleſſe he knoweth the cauſe of the diſeaſe, it is impoſſible for him to cure it well and skilfully. And therefore I wiſh all Farriars to be diligent in ſeeking to know the cauſes of all diſeaſes, as well in the parts ſimilar, as inſtrumental, and to know whether ſuch cauſes be ſimple, or compound; for as they be ſimple or compound, ſo do they engender ſimple or compound diſeaſes.

Of ſickneſs, what it is, and how many general kinds there be; alſo with what order the diſeaſes of Horſes are herein declared. And finally, of the four times, belonging to every ſickneſs.

Sickneſs is an evill affect contrary to nature, hindering of it ſelf, ſome action of the body. Of ſickneſs there be three general kinds, whereof the firſt conſiſteth in the parts ſimilar; the ſecond in the parts inſtrumental; and the third in both parts together. The firſt kind is called of the *Latins Intemperies*, that is to ſay, evil temperature, which is either ſimple or compound. It is ſimple, when one quality only doth abound or exceed too much, as to be too hot, or too cold; it is compound, as when many qualities do exceed, as when the body is too hot and too dry, or too cold and too moiſt. The ſecond kind is called *Mala conſtitutio*, that is to ſay, an evill ſtate or compoſition, which is to be conſidered, either by the ſhape, number, quantity, or ſight of the member, or part evill affected or diſeaſed. The third kind is called *Unitatis ſolutio*, that is to ſay, the looſening or diviſion of the unity, which as it may chance diverſly, ſo it hath divers names accordingly; for if ſuch ſolution or diviſion be in a bone, then it is called a fracture; if it be in any fleſhie part, then it is called a Wound or Ulcer; in the veins, a Rupture; in the ſinews, a Convulſion or Cramp; and in the skin, an Excoriation.

Again, of diſeaſes, ſome be called long, and ſome ſharp and ſhort, called of the *Latins*, *Morbi acuti*, which be perillous and do quickly kill the body. The long, do tarry longer by it. Yet moreover, there is ſickneſs by it ſelf, and ſickneſs by conſent: Sickneſs by it ſelf, is that which being in ſome member, hindereth the action thereof by it ſelf. Sickneſs by conſent, is derived out of one member into another, through the neighbourhood and community that is betwixt them: as the pain of the head which cometh from the ſtomach.

Thus the learned Phyſitians which write of Mans body, do divide ſickneſs. But *Abſyrtus* writing of Horſe-leach craft, ſaith of that ſickneſs, or rather malady (for ſo he termeth it, uſing that word as a general name to all manner of diſeaſes that be in a Horſe) there be four kinds, that is to ſay, the moiſt malady, the dry malady, the malady of the joynts, and the malady betwixt the fleſh and the skin. The moiſt malady is that which we call the Glanders. The dry malady is an incurable conſumption, which ſome perhaps would call, the mourning of the chein, but not rightly, as ſhall appear unto you hereafter. The malady of the joints comprehendeth all griefs and ſoreneſs that be in the joints. And the malady betwixt the fleſh and the skin, is that which we call the Scab. Unto which four kindes of maladies, *Vegetius* addeth three others, that is, the Farcine, the paine of the Reins or Kidnies, and the cankered Mangineſs, moſt commonly called of the old writers the Leproſie; and ſo maketh ſeven kindes of maladies, under which all other particular diſeaſes are comprehended.

Again, *Laurentius Ruſius*, uſeth an other kind of diviſion of ſickneſs. Of Horſes diſeaſes, ſaith he, ſome be natural, and ſome accidental. The natural be thoſe that do come either through the exceſſe, or lack of engendring ſeed, or by error of nature, in misforming the young, or elſe by ſome defect of the dam or ſire, in that perhaps they be diſeaſed within, and have their ſeed corrupted.

The accidental diſeaſes be thoſe that come by chance, as by ſurfetting, of cold, heat, and ſuch like thing. But foraſmuch as none of theſe writers do follow their own diviſions, nor handle the parts thereof accordingly: to avoid their confuſion, and to teach plainly: I thought good and profitable therefore to uſe this my own diviſion and order here following.

Firſt then, of diſeaſes ſome be inward, and ſome be outward. The inward be thoſe that breed within the Horſes body, and are properly called maladies and diſeaſes, whereof ſome do occupy all the whole body, and ſome particular parts or members of the body.

Of thoſe then that occupie all the body, and not be accident to any private member, I do firſt treat, as of Agues, of the Peſtilence, and ſuch like, and then of thoſe that be incident to every particular member, beginning at the head, and ſo proceed orderly throughout all the members, even down to the ſole of the foot, obſerving therein ſo nigh as I can, the ſelf ſame order that *Galen* uſeth in his book, *De locis male affectis*, declaring what manner of diſeaſe it is, and how it is called in *Engliſh*, and alſo in *Italian*; becauſe the Kings ſtable is never without *Italian* Riders, of whom our Farriars borrowed divers names, as you ſhall perceive hereafter. Then the cauſes whereof it proceeds, and the ſignes how to know it, and finally, the cure and diet belonging to the ſame; and becauſe I find not inward diſeaſes enow to anſwer every part of the body, I do not let to interlace them with outward diſeaſes incident to thoſe parts, yea rather, I leave out no outward diſeaſe belonging to any particular member, and to the intent you may the better know to what diſeaſes or ſorances every part or member of the Horſes body is moſt commonly ſubject. And note by the way, that I call thoſe outward diſeaſes that proceed not of any inward cauſe, but of ſome outward cauſe, as when a Horſe is ſhouldered by means of ſome outward cauſe, or his back galled with the ſaddle, or his ſides ſpurgalled, or his his hoof cloid with a nail, which properly may be called ſorances or griefs.

Thirdly, I talk of thoſe diſeaſes as well outward as inward, that may indifferently chance in any part of the body, as of Impoſtumes, Cankerous Ulcers, Wounds, Fiſtulaes, Burnings, Bruſings, Breaking of bones, and ſuch like.

Fourthly, becauſe moſt diſeaſes are healed either by letting of bloud, by taking up of veins, by purgation, or elſe by cauteriſation, that is to ſay by giving the fire: I talk of thoſe four neceſſary things ſeverally by themſelves; and finally I ſhew you the true order of paring and ſhooing all manner of hoofs, according as the diverſity of hoofs require: and to the intent you may the better underſtand me, you have the perfect ſhapes of all neceſſary ſhooes, plainly ſet forth in figures before your eyes. Thus much touching mine order which I have hitherto obſerved.

Now it is neceſſary to know, that to every diſeaſe or malady, belongeth four ſeveral times, that is to ſay, the beginning, the increaſing, the ſtate, and declination, which times are diligently to be obſerved of the Farriar, becauſe they require divers applying of medicine; for that medicine which was meet to be uſed in the beginning of the diſeaſe, perhaps is not to be uſed in the declination thereof: and that which is requiſite, and very needful, to be applyed in the ſtate or chiefeſt of the diſeaſe, may be very dangerous to be uſed in the beginning. And therefore the Farriar ought to be a man of judgement, and able to diſcern one time from another, to the intent he may apply his medicines rightly. Hither of cauſes and ſickneſs in general. Now it is alſo meet, that we ſpeak in general of ſignes whereby ſickneſs is known.

Of the ſignes of ſickneſs in general.

Sickneſs according to the learned Phyſitians, is known four manner of wayes. First, by inſeparable or ſubſtantial accidents, as by the ſhape, number, quality, and ſight of the part or member diſeaſed. For if it be otherwiſe formed, or more or leſſe in number or quantity, or elſe otherwiſe placed then it ought to be, then it is not well. Secondly, ſickneſs is known by alteration of the quality, as, if it be too hot, or too cold, too moiſt, or too dry. Thirdly, when the action of any member is hurt or letted, as when the eye-ſight is not perfect, it is a manifeſt ſign that the eye is evill affected or ſick. Likewiſe, when there breedeth no good bloud in the body, it is an evident token that the Liver is not well. Fourthly, ſickneſs is known by the excrements that come from the Beaſt, as by dung or ſtale; for if his dung be too ſtrong of ſent, full of whole Corns, or of Wormes, too hard, or too ſoft, or evill coloured, it is a token that he is not well in his body: ſo likewiſe if his ſtale be too thick, or too thin, too white, or too red, it betokeneth ſome ſurfet, raw digeſtion, or elſe ſome grief in his reins, bladder or ſtones. But *Vegetius* ſaith, that it is beſt known, whether a Horſe be ſick or not, or toward ſickneſs, by theſe ſignes here following; for if he be more ſlow and heavie in his trotting, or gallopping, harder of Spur then he was wont to be, or ſpreadeth his litter abroad with his feet, often tumbling in the night ſeaſon, fetching his breath ſhort and violently, loud ſnuffling in the Noſe, and caſting out vapors at his Noſtrils, or lyeth down immediately *Blundevile.*

after his provender, or maketh long draughts in his drinking, or in the night ſeaſon is now down, and now on foot, or if in the next morning he be very hot in his paſterns, or betwixt his ears, or that his ears hang more then they are wont to do: again, if his eye ſight be dim, and his eyes hollow in his head, his hairs ſtanding right up, and his flanks hollow and empty, whenſoever two or three of theſe ſignes do concur together, then it is to be thought, ſaith *Vegetius*, that the Horſe is not well, and therefore he would have him immediately to be ſeparated from his companions that be whole, and to be placed by himſelf untill his diſeaſe be perfectly known and cured, and eſpecially if it be any contagious diſeaſe.

I have ſeen divers Farriars here in *England* to uſe that for the trial of a Horſes ſickneſs, which I never read in any Author, that is, to feel his ſtones, whether they be hot or cold, and to ſmell at his noſtrils, and ſo by the ſavour thereof to judge what ſickneſs the Horſe hath. Truly I think that no evill way, if they can diſcern with their ſenſe of ſmelling, the diverſity of ſavours, that cometh out of his Noſtrils, and then aptly apply the ſame to the humours whereof ſuch ſavours be bred, and ſo orderly to ſeek out the originall cauſe of his ſickneſs. But I fear me, that more Farriars ſmell without judgement, then with ſuch judgement, and no marvell why, ſith that few or none be learned, or have been brought up with skilful Maſters. But from henceforth I truſt that my travail will cauſe ſuch Farriars as can read, and have ſome underſtanding already, to be more diligent in ſeeking after knowledge then they have been heretofore, whereby they ſhall be the better able to ſerve their Countrey, and alſo to profit themſelves, with good fame, whereas now for lack of knowledge they incur much ſlander.

Of the Fever and divers kinds thereof in a Horſe.

Blondevile.

I Think it will ſeem ſtrange unto ſome, to hear that a Horſe ſhould have an Ague or Fever, but it was not ſtrange unto the men of old time, as to *Abſyrtus*, *Hierocles*, *Xenophon*, *Vegetius*, and ſuch like old Souldiers, throughly experimented in Horſes griefs. A Fever, according to the learned Phyſitians, is an unnatural and immoderate heat, which proceeding firſt from the heart, ſpreadeth it ſelf throughout all the arteries and veins of the body, and ſo letteth the actions thereof.

Of Fevers there be three general kinds, whereof the firſt, is that which breedeth in the ſpirits, being inflamed or heated more then their nature requireth. The ſecond breedeth in the humors, being alſo diſtempered by heat. The third in the firm parts of the body, being continually hot. What ſpirits and humors be, hath been told you before in the keepers Office. Of theſe three general kinds do ſpring many other ſpecial kinds, as Quotidians, Tertians, Quartans, Fevers Hectick, and very many others, whereunto mans body is ſubject, whereof none of my Authors do treat, unleſs *Vegetius*, who ſpeaketh ſomewhat of a Fever Quotidian, of a Fever continual, and alſo of a Fever accidental. He ſpeaketh alſo of Summer, Autumn, and Winter Fevers, without making any great difference betwixt them, more then that one is worſe then another, by reaſon of the time and ſeaſon of the year, ſo that in effect all is but one Fever. Wherefore according unto *Abſyrtus* opinion, I will briefly ſhew you firſt the cauſes whereof it proceeds, and then the ſignes how to know it, and finally how to cure the ſame.

The Fever chanceth ſometime by ſurfetting of extreme labour or exerciſe, as of too much travelling, and eſpecially in hot weather, of too ſwift gallopping and running, and ſometime by extreme heat of the Sun, and alſo by extreme cold of the aire, and ſometime it breedeth of crudity or raw digeſtion, which many times happeneth by over greedy eating of ſweet green corn, or of ſuch provender as was not thoroughly dryed or cleanſed: for after ſuch greedy eating, and ſpecially ſuch meat, never followeth perfect digeſtion. The ſignes to know a Fever be theſe, The Horſe doth continually hold down his head, and is not able to lift it up, his eyes are even blown ſo as he cannot eaſily open them: yea and many times they be watering, the fleſh of his lips and of all his body is luſh and feeble, his ſtones hang low, his body is hot, and his breath is very hot and ſtrong, he ſtandeth weakly on his legs, and in his going draweth them laſiely after him, yea he cannot go but very ſoftly, and that ſtaggering here and there he will lie down on his ſide, and is not able to turn himſelf, or to wallow; he forſaketh his meat both hay and provender, and is deſirous of nothing but of drink, which, as *Abſyrtus* ſaith, is an aſſured token of a Fever: he alſo ſleepeth but little. The cure and diet. Let him bloud in the face and temples, and alſo in the palat of his mouth, and the firſt day give him no meat, but only warm drink, and that by little and little. Afterward give him continually graſſe, or elſe very ſweet hay wet in water, and let him be kept warm, and ſometime walke him up and down fair and ſoftly in a temperate air, and then let him reſt, and when you ſee that he begins to amend, give him by little and little at once Barley fair ſifted and well ſodden, and alſo mundified, that is to ſay, the huske pulled away, like as when you blanch Almonds.

Of

Of divers ſorts of Fevers according to Vegetius, *and firſt of that which continueth but one day.*

THe Fever of one day called by the *Greek* name *Ephemera*, or elſe by the *Latin* name *Diaria*, chanceth many times through the raſhneſs and ſmall diſcretion of the keeper, or ſome other that letteth not to ride a Horſe unmeaſurably, either before or after watering, whereby the Horſe afterward in the ſtable entreth into an extream heat, and ſo falleth into his Fever, which you ſhall know partly by his wateriſh and bloud-ſhotten eyes, and partly by his ſhort violent and hot breathing and panting. Moreover, he will forſake his meat, and his legs will wax ſtiffe and feeble. The cure. Let him have reſt all the next day following, and be comforted with warm meat, then let him be walked up and down fair and ſoftly, and ſo by little and little brought again to his former eſtate.

Of the Fever continual.

THe Fever continual, is that which continueth without intermiſſion, and is called in *Italian* by the *Latin* name *Febris continua*, which ſpringeth of ſome inflamation or extream heat, bred in the principal members or inward parts, about the heart, which is known in this ſort. The Horſe doth not take his accuſtomed reſt, whereby his fleſh doth fall away every day more and more, and ſometime there doth appear hot inflamations in his flanks, and above his withers. The cure; Purge his head by ſquirting into his Noſtrils Mans urine, or the Water of an Ox that hath been reſted a certain time, to the intent ſuch water may be the ſtronger, and then give him the drink written in the next Chapter.

Of the Fever taken in the Autumn, that is to ſay, at the fall of the leaf.

IF a Horſe chance to get a Fever at the fall of the leaf, cauſe him immediately to be let bloud in the neck vein, and alſo in the third furrow of the roof of his mouth, and then give him this drink; Take of Jermander four ounces, of Gum-dragant, and of dryed Roſes, of each one ounce, beat them all into fine powder, and put them into a quart of Ale, adding thereunto of Oil-olive four ounces, and of Hony as much, and give it the Horſe lukewarm.

Of the Fever in Summer ſeaſon.

A Fever taken in Summer ſeaſon is much worſe then in any other time, and eſpecially if it be taken in the Dog days, for then the accidents be more furious. The ſignes be theſe, his arteries will beat evidently, and he will ſhed his ſeed when he ſtaleth, and his going will be unorderly. The cure; Let him bloud in a vein that he hath in his hinder hanch, about four fingers beneath the fundament, or if you cannot finde that vein, let him bloud in the neck vein, toward the withers, and if it be needful you may alſo give him this drink; Take the juyce of a handful of Parſlein mingled with Gum-dragant, with Enſens, and a few Damask roſes, beaten all into fine powder, and then put thereunto a ſufficient quantity of Ale made ſweet with Hony. *Blundevile.*

Of the Fever in Winter.

FOr the Fever in Winter, it ſhall be good to take the powder of the drugs laſt mentioned, and with a quill or reed, to blow it up into his left noſtril to make him to neeſe. It ſhall be good alſo to let him bloud in the neck vein, and in the palat of the mouth, and then give him one of theſe drinks here following; Take of Ireos ſix ounces, of round Pepper one ounce, of Bay berries, and of the ſeed of Smallage, of each one ounce, and let him drink them with ſodden Wine. Or elſe take a pinte of good Milk, and put therein of Oile four ounces, of Saffron one ſcruple, of Myrrhe two ſcruples, of the ſeed of Smallage a ſpoonful, and make him drink that: or make him this drink; Take of Ariſtoloch, otherwiſe called round Hartwort, one ounce, of Gentian, of Hyſop, of Wormwood, of Sothernwood, of each one ounce, of dry fat figs ſix ounces, of the ſeed of Smallage three ounces, of Rue a handful, boil them all in a clean Veſſel with River Water, untill the third part be conſumed, and when you ſee it look black and thick, take it from the fire, ſtrain it, and give the Horſe to drink thereof lukewarm. *Blundevile.*

As touching his diet, let his water be alwayes lukewarm, wherein would be put a little Wheat meal, and remember to give him no meat ſo long as his fit continueth. And becauſe in all Agues it is good to quicken the natural heat of the Horſe, by rubbing and fretting his body; it ſhall not be amiſſe in ſome fair day to uſe this Friction, called of the ancient writers *Apotorapie*, which is made in this ſort, Take of Damaske Roſes one pound, of old Oil a pinte, of ſtrong Vinegar a pinte and a half, of Mints and Rue beaten into powder, of each one ounce and a half, together with one old dry Nut, beat them and mingle them together, then being ſtrained and made lukewarm, rub and chaſe all the Horſes body therewith againſt the hair, untill he beginneth to ſweat, then ſet him up in the warmeſt place of the ſtable, and cover him well.

Of the Fever which cometh of raw Digeſtion, or of Repletion.

YOu ſhall know if the Fever proceedeth of any ſuch cauſe, by theſe ſignes here following. The Horſe will blow at the noſe more then he is accuſtomed to do, ſeemeth to fetch his winde only at his noſe, and his breath will be ſhort, hot and dry, you ſhall ſee his flanks walk, and his back to beat. The cure: Cauſe him to be let bloud abundantly in the head and palat of his mouth, and by ſquirting warm Vinegar in the morning into his noſtrils, force him to neeſe: and if he be coſtive, let his fundament be raked, or elſe give him a Glyſter to eaſe the pain in his head. And as touching his diet, give him but little provender or hay, neither let him drink much nor often, but betwixt times. But in any wiſe let him be well rubbed and chafed, and that a good while together, and if you uſe the Friction declared in the laſt Chapter before in ſuch ſort as there is ſaid, it ſhall do him very much good.

Of the Fever accidental coming of ſome Ulcer in the mouth or throat.

THe Horſe not being well kept and governed, after that he hath been let bloud in the upper parts; yea, and alſo beſides that of his own nature is ſubject unto the diſtillation in his throat, or parts thereabout, the painful ſwelling or Ulcer whereof, cauſeth the Horſe to fall into a grievous Ague. Whereof, beſides the former remedies apt to purge humors, it ſhall be neceſſary alſo, to let him bloud in the vein of the head, and in the palat of his mouth, and to be ſhort, in all thoſe places where the diſeaſe cauſeth moſt grief. And if the Horſe be ſo ſore pained as he cannot ſwallow down his meat, it ſhall be good to give him lukewarm water mingled with Barley meal, or Wheat meal, and beſide that, to make him ſwallow down ſeven ſops ſopped in Wine one after another, at one time: ſome uſe at the ſecond time to dip ſuch ſops in ſweet Sallet Oil. Thus far *Vegetius*.

Of the Peſtilent Ague.

Blundevile. IT ſeemeth by *Laurentius Ruſſius*, that Horſes be alſo ſubject to a Peſtilent Fever, which almoſt incurable, is called of him *Infirmitas Epidemialis*, that is to ſay, a Contagious and peſtiferous diſeaſe, whereof there dyed in one year in *Rome* above a thouſand Horſes, which as I take it came by ſome corruption of the air, whereunto *Rome* in the chief of Summer is much ſubject, or elſe corrupt humours in the body ingendered by unkind food, by reaſon perhaps, that the City was then peſtered with more Horſe-men then there could be conveniently harbored or fed *Laurentius* himſelf rendreth no cauſe thereof, but only ſheweth ſignes how to know it, which be theſe; The Horſe holdeth down his head, eateth little or nothing, his eyes wateriſh, and his flanks do continually beat. The Cure: Firſt give him this Glyſter, Take of the pulp of Coloquintida one ounce, of Dragantum one ounce and a falf, of Centaury and Wormwood, of each one handful, of *Caſtoreum* half an ounce, boil them in Water, then being ſtrained, diſſolve therein of Gerologundinum ſix ounces, of Salt an ounce and a half, and half a pound of Oil-olive, and miniſter it lukewarm with a horn, or pipe made of purpoſe. Make alſo this Plaiſter for his head; Take of Squilla five ounces, of Elder, of *Caſtoreum*, of Muſtard ſeed and of *Euforbium*, of each two ounces, diſſolve the ſame in the juice of Daffodil, and of Sage, and lay it to the Temples of his head next unto his eares; or elſe give him any of theſe three drinks following, Take of the beſt Triacle two or three ounces, and diſtemper it in good Wine, and give it him with a horn; or elſe let him drink every morning the ſpace of three dayes, one pound or two of the juyce of Elder roots; or elſe give him every morning to eat, a good quantity of *Venus* hair, called of the *Latins*, *Capillus Veneris*, newly and freſh gathered, but if it be old, then boil it in Water, and give him the decoction thereof to drink with a horn.

Martins opinion and experience touching a Horſes Fever.

Blundevile. THough *Martin* have not ſeen ſo many ſeveral kinds of Fevers to chance to Horſes, yet he confeſſeth that a Horſe will have a Fever, and ſaith, that you ſhall know it by theſe ſignes; For after the Horſe hath been ſick two or three dayes, if you look upon his tongue you ſhall ſee it almoſt raw and ſcalt, with the heat that comes out of his body, and he will ſhake and tremble, reel and ſtagger when his fit cometh, which fit will keep his due hours, both of coming and alſo of continuance, unleſſe you prevent it by putting the Horſe into a heat, which would be done ſo ſoon as you ſee him begin to tremble, either by riding him, or tying up his legs, and by chaſing him up and down in the ſtable, untill he leave ſhaking, and then let him be kept warm, and ſtand on the bit the ſpace of two houres, that done, you may give him ſome hay, by a little at once, and give him warm water, with a little ground malt twice a day, the ſpace of three or four dayes, and once a day waſh his tongue with Alomwater, Vinegar & Sage. But if you ſee that all this prevails not, then purge him with this drink, after that he hath faſted all one night; Take of Aloes one ounce, of Agarick half an ounce, of Licoras and Annis ſeeds, of each a dram beaten to powder, and let him drink it with a quart of white wine likewarme, and made ſweet with a little hony in the morning faſting, and let him be chaſed a little after it, and be kept warm, and ſuffered to ſtand on the bit meatleſſe two or three hours after, and he ſhall recover his health again quickly.

Of ſickneſs in general, and the Fever.

Markham.

IN general, ſickneſs is an oppoſite foe to nature, warring againſt the agents of the body and mind, ſeeking to confound thoſe actions which uphold and maintain the bodies ſtrength and livelyhood. Who coveteth to have larger definition of ſickneſs, let him read *Vegetius*, *Ruſius*, or excellent Maſter *Blundevile*, who in that hath been admirably well-deſerving painful. For mine one part, my intent is to write nothing more then mine own experience, and what I have approved in Horſes diſeaſes moſt availeable: and firſt of the Fever or Ague in a Horſe, though it be a diſeaſe ſeldom or not at all noted by our Mechanical Horſe Farriars, who cure many times what they know not, and kill where they might cure, knew they the cauſe: yet I have my ſelf ſeen of late (both by the demonſtrate opinions of others better learned, and by the effects of the diſeaſe) ſome two Horſes which I dare avouch were mightily tormented with a Fever; though divers Leeches had thereof given divers opinions, one ſaying it was the Bots, by reaſon of his immoderate languiſhment: another affirmed him to be bewitched, by reaſon of great ſhaking, heavineſs, and ſweating: but I have found it and approved it to be a Fever, both in effect, nature, and quality; the cure whereof is thus; for the original cauſe of a Fever, is ſurfet, breeding putrifaction in the bloud; then when his ſhaking beginneth, take three new laid Egges, break them in a diſh, and beat them together, then mix thereto five or ſix ſpoonfuls of excellent good *Aquavite*, and give it him in a horn, then bridle him, and in ſome Cloſe or Court, chaſe him till his ſhaking ceaſe, and he begin to ſweat: then ſet him up and cloath him warm. And during the time of his ſickneſs, give him no water to drink, but before he drink it, boil therein Mallowes, Sorrel, Purſlain, of each two or three handfuls.

As for his food, let it be ſodden Barly, and now and then a little Rie in the ſheaf to clenſe and purge him, chiefly if he be dry inwardly and grow coſtive. This I have proved uneffectleſs for this diſeaſe, and alſo much availeable for any other inward ſickneſs proceeding either of raw digeſtion, too extream riding, or other ſurfet. Divers have written diverſly of divers Agues, and I could preſcribe receipts for them, but ſince I have not been experimented in them all, I mean to omit them, intending not to exceed mine own knowledge in any thing.

Of the Peſtilence.

Blundevile.

THe Peſtilence is a contagious diſeaſe, proceeding, as *Pelagonius* ſaith, ſometime of overmuch labour, heat, cold, hunger, and ſometime of ſudden running after long reſt, or of the retention or holding of ſtale or urine, or of drinking cold water whiles the Horſe is hot and ſweating; for all theſe things do breed corrupt humors in the Horſes body, whereof the Peſtilence doth chiefly proceed, or elſe of the corruption of the air, poiſoning the breath whereby the Beaſts ſhould live, which alſo happeneth ſometime of the corruption of evill vapors and exhalations that ſpring out of the earth, and after great floods or earthquakes, and ſometime by means of ſome evill diſtillation or influence of the Planets, corrupting ſometime the plants and fruits of the earth, and ſometime divers kind of Cattle, and ſometime both Men, Women and Children, as we dayly ſee by experience. It ſeemeth that this evill or miſchief in times paſt came ſuddenly, without giving any warning, for none of mine Authors doth declare any ſignes how to know whether a Horſe hath this diſeaſe or not, but only affirm, that if one Horſe do die of it, all his fellows that bear him company will follow after, if they be not remedied in time: ſo that as far as I can learn, the ſudden death of one or two firſt, muſt be the only mean to know that this diſeaſe doth reign. And the remedy that they give is this; Firſt ſeparate the whole from the ſick; yea, and have them clean out of the air of thoſe that be dead, the bodies whereof, as *Vegetius* ſaith, if they be not deep buryed, will infect all the reſt. And let them bloud as well in the neck, as in the mouth, and then give them this drink, Take of Gentian, of Ariſtoloch, of Bay berries, of Myrrhe, of the ſcraping of Ivory, of each like quantity, beat them into fine powder, and give as well to the ſick as to the whole, whom you would preſerve from this contagion, every day a ſpoonful or two of this powder in a pinte of good Wine, ſo long as you ſhall ſee it needful. This medicine before rehearſed, is called of the ancient writers *Diapente*, that is to ſay, a compoſition of five ſimples, and is praiſed to be a ſoveraign medicine and preſervative againſt all inward diſeaſes, and therefore they would have ſuch as travell by the way, to carry of this powder alwayes about them.

There be many other medicines which I leave to write, becauſe if I ſhould rehearſe every mans medicine, my book would be infinite; I for my part would uſe no other then that before expreſſed, or elſe Wine and Treacle only.

Of

Of the Diſeaſes in the Head.

Blundevile.

THe head is ſubject to divers diſeaſes according to the divers parts thereof: for in the panicles or little fine skins cleaving to the bones, and covering the brain, do moſt properly breed head-ach and Migram. Again, in the ſubſtance of the brain, (which in a Horſe is as much in quantity as is almoſt the brain of a mean Hog) do breed the Frenſie, madneſs, ſleeping evill, the Palſie and forgetfulneſs. Finally, in the ventricles or cels of the brain, and in thoſe conducts through which the ſpirits animal do give feeling and moving to the body, do breed the Turnſick or ſtaggers, the Falling-evill, the Night-mare, the Apoplexy, the Palſie, and the Convulſion or Cramp, the Catar or Rhume, which in a Horſe is called the Glaunders: but firſt of Head-ach.

Of Head-ach.

THe Head-ach either cometh of ſome inward cauſes: as of ſome cholerick humor, bred in the the panicles of the brain, or elſe of ſome outward cauſe, as of extream heat or cold, of ſome blow, or of ſome violent ſavour. *Eumelus* ſaith, that it cometh of raw digeſtion: but *Martin* ſaith moſt commonly of cold: the ſignes be theſe; the Horſe will hang down his head, and alſo hang down his ears; his ſight will be dim, his eyes ſwollen and wateriſh; and he will forſake his meat The cure. Let him bloud in the palat of his mouth: alſo purge his head with this perfume; Take of Garlike ſtalks a handful, all to broken in ſhort pieces, and a good quantity of Frankincenſe, and being put into a chafing-diſh of freſh coals, hold the chafing-diſh under the Horſes noſtrils, ſo as the fume may aſcend up into his head: and in uſing him thus once or twice, it will make him to caſt at the noſe, and ſo purge his head of all filth. *Pelagonius* ſaith, that it is good to pour into his noſtrils Wine, wherein hath been ſodden *Euforbium*, Centaury, and Frankincenſe.

Of the Frenzy and Madneſs of a Horſe.

THe learned Phyſitians do make divers kindes, as well of Frenſie, as of Madneſs, which are not needful to be recited, ſith I could never read in any Author, nor learn of any Farriar, that a Horſe were ſubject to the one half of them. *Abſyrtus*, *Hierocles*, *Eumelus*, *Pelagonius*, and *Hippocrates*, do write ſimply *de furore & rabie*: that is to ſay, of the madneſs of a Horſe. But indeed, *Vegetius* in his ſecond Book of Horſe-leach-craft, ſeemeth to make four mad paſſions belonging to a Horſe, intituling his Chapters in this ſort, *de Appioſo*, *de Frenetico*, *de Cardiacis*, *de Rabioſo*, the effects thereof, though I fear me it will be to no great purpoſe, yet to content ſuch as perhaps have read the Author as well as I my ſelf, I will here briefly rehearſe the ſame.

When ſome naughty bloud (ſaith he) doth ſtrike the film or pannicle of the brain, in one part only, and maketh the ſame grievouſly to ake, then the beaſt becometh *Appioſum*; that is to ſay, as it ſeemeth by his own words next following, both dull of minde and of ſight. This word *Appioſum* is a ſtrange word, and not to be found again in any other Author, and becauſe in this paſſion, the one ſide of the head is only grieved, the Horſe turneth round, as though he went in a Mill. But when the poyſon of ſuch corrupt bloud doth infect the mid brain, then the Horſe becometh Frantick, and will leap and fling, and will run againſt the wals. And if ſuch bloud filleth the veins of the ſtomach, or breaſt, then it infecteth as well the heart as the brain, and cauſeth alienation of minde, and the body to ſweat, and this diſeaſe is called of *Vegetius*, *Paſſocardiaca*, which if Equus *Appioſus* chance to have, then he becometh *Rabioſus*, that is to ſay, ſtark-mad. For ſaith he, by overmuch heat of the liver and bloud, the veins, and arteries of the heart are choaked up, for grief and pain whereof the Horſe biteth himſelf, and gnaweth his own fleſh.

Of two ſorts of mad Horſes, I believe I have ſeen my ſelf here in this Realm. For I ſaw once a black *Sweatbland* Horſe (as I took him to be) in my Lord of *Hunſdons* ſtable at *Hunſdon*, coming thither by chance with my Lord *Morley*, which Horſe would ſtand all day long biting of the manger, and eat little meat or none, ſuffering no man to approach unto him, by which his doings, and partly by his colour and complexion, I judged him to be vexed with a melancholy madneſs called of the Phyſitians *Mania*, or rather *Melancholia*, which cometh of a corrupt Melancholy, and filthy bloud or humor, ſometime ſpread throughout all the veins of the body, and ſometimes perhaps remaining only in the head, or elſe in the ſpleen, or places next adjoyning. The other mad Horſe was a Roan of Maſter *Aſhlies*, Maſter of the Jewel houſe, which with his teeth cruſhed his Maſters right fore-finger in pieces, whileſt he offered him a little Hay to eat, whereby he loſt in a manner the uſe of his whole hand, to the great grief of all his friends, and alſo of all the Muſes, which were wont to be much delighted with ſuch paſſing ſweet muſick as that his fine quavering hand could ſometime make upon divers Inſtruments, but eſpecially upon the Virginals.

This Horſe I ſay, though he could eat his meat, drink his drink, and ſleep: yet if he were never ſo little offended, he would take on like a ſpirit, and both bite and ſtrike at any man that came nigh him: yea and would bite himſelf by the ſhoulders moſt terribly, pulling away lumps of fleſh, ſo broad as a mans hand: and whenſoever he was ridden, he was fain to be muſled with a muſlel of iron, made of purpoſe to keep him from biting either of his Rider or of himſelf, which no doubt proceeded of ſome kinde of frenzy or madneſs, whereunto the Horſe was ſubject; by means that hot bloud (as I take it) abounded over-much in him. But now as touching the cauſes, ſignes, and cure of Horſes madneſs, you ſhall hear the opinion of old Writers: for *Martin* never took ſuch cure in hand. *Abſyrtus* and the other Authors before mentioned, ſay, that the madneſs of a Horſe cometh either by means of ſome extream heat taken by travelling, or long ſtanding in the hot Sun, or elſe by eating over many fitches, or by ſome hot bloud reſorting to the panicles of the brain; or through abundance of choler remaining in the veins; or elſe by drinking of ſome very unwholeſome water. The ſignes be theſe, he will bite the manger and his own body, and run upon every man that comes nigh him, he will continually ſhake his ears, and ſtare with his eyes, and fome at the mouth: and alſo, as *Hippocrates* ſaith, he will forſake his meat, and pine himſelf with hunger.

The cure. Cauſe him to be let bloud in his legs abundantly, which is done (as I take it) to divert the bloud from his head. Notwithſtanding it were not amiſs, to let him bloud in the neck and breſt veins. Then give him this drink: take the roots of wilde Cowcumber, and boil it in harſh red Wine, and put thereunto a little Nitre, and give it him with a horn luke-warm: or if you can get no Cowcumber, then take Rue, and Mints, and boil them in the Wine: it were not amiſs alſo to add thereunto a handful of black *Elleborus*, for that is a very good herb againſt madneſs. *Eumelius* ſaith, that if you give him mans dung in Wine, to drink three mornings together, it will heal him: alſo to take of black *Elleborus* two or three handfuls, and boil it in a ſufficient quantity of ſtrong Vinegar, and therewith rub and chafe both his head, and all his body once or twice a day; for the oftner his head is rubbed, the better, and often exerciſe is very profitable to all his body. Some again would have the skin of his body to be pierced in divers places with an hot iron, to let out the evill humors: but if none of all this will prevail, then the laſt remedy is to geld him of both his ſtones, or elſe of one at the leaſt; for either that will heal him, or elſe nothing. As touching the diet and uſage of a mad Horſe, the Authors do not agree; for ſome would have him kept in a cloſe, dark and quiet houſe, void from all noiſe, which as *Abſyrtus* ſaith, will either make him madder, or elſe kill him out of hand. His diet would be thin, that is to ſay, without any provender, and that day that he is let bloud, and receiveth his drink, they would have him faſt untill even, and then to have a warm maſh of Barley meal: yea, me thinks it were not amiſs to feed him only with warm maſhes and hay; and that by a little at once, untill he be ſomewhat recovered.

Another of the Head-ach.

Markham.

THe Head-ach, as moſt are opinionated, proceedeth of cold and raw digeſtion: the cure is; Take a Gooſe feather anointed with Oyl-de-bay, and thruſt it up into the Horſes noſtrils, to make him neeſe; then take a wreath of Peaſe-ſtraw or wet hay, and putting fire thereunto, hold it under the Horſes noſe, ſo as the ſmoke may aſcend up into his head; then being thus perfumed, take a knife and prick him in the palat of the mouth, ſo that he may lick up and chaw his own bloud, which done, have great care in keeping his head warm, and doubt not his recovery.

Of the Sleeping-evil.

Blundevile.

THis is a diſeaſe forcing the Beaſt continually to ſleep, whether he will or not, taking his memory and appetite clean away, and therefore is called of the Phyſitians *Lethargus*, it proceedeth of abundance of flegm moiſtning the brain overmuch. It is eaſie to know it, by the continual ſleeping of the Horſe. The cure of this diſeaſe according to *Pelagonius, Vegetius*, and others, is in this ſort: Let him bloud in the neck, and then give him this drink: Take of Camomile and Mother-wort, of each two or three handfuls, and boil them in a ſufficient quantity of water, and put thereunto a little Wheat-bran, Salt and Vinegar, and let him drink a pinte of that every day, the ſpace of three or four days together. It is good alſo to perfume and chafe his head, with Thyme and Pennyroyal ſodden together in Vinegar, or with Brimſtone and feathers burned upon a chafingdiſh of coals under his noſe: and to provoke him to neeſe, by blowing Pepper and Pyrethre beaten to powder, up into his noſtrils: yea and to anoint the palate of his mouth, with Honey and Muſtard mingled together, and in his drink, which would be always warm water, to put Parſley ſeed, and Fennel ſeed, to provoke urine. His legs alſo would be bathed, and his hoofs filled with Wheat-bran, Salt, and Vinegar, ſodden together, and laid to ſo hot as he may endure it, and in any caſe ſuffer him not to ſleep, but keep him waking and ſtirring, by continual crying unto him, or pricking him with ſome ſharp thing that cannot paſs through the skin, or elſe by beating him with a whip, and this doing he ſhall recover.

Another of the Sleeping-evill.

Markham.

THe Sleeping-evill in a Horſe, differeth nothing from that which the Phyſitians call the Lethargy in men, for it provoketh the Horſe to ſleep continually, without deſiſting, robbing his memory and appetite of their qualities: the knowledge thereof is eaſily known by his drowſineſs, and the cure in this ſort: Let one ſtand by him, and either with fearful noiſe or ſtripes, perforce keep him waking; then let him bloud under the eyes, and in the neck, and then take a leaf or two of the beſt Tobacco, which being dryed and beaten to powder, with a quill blow it up into his noſtrils, and give him to drink Vinegar, Salt, and Muſtard mingled well together, to which if you put a little

Honey, it ſhall not be amiſs; and alſo when he drinketh any water, put thereto either Fennel-ſeeds, Aniſeeds or Pepper.

Of a Horſe that is taken.

Blundevile. A Horſe is ſaid to be taken, when he is deprived of his feeling and moving, ſo as he is able to ſtir no manner of way, but remaineth in ſuch ſtate and form, as he was taken in; which diſeaſe is called of the Phyſitians by the *Greek* name *Catalepſis*, and in *Latine*, *Deprehenſio*, or *Congelatio*; and of *Vegetius*, *Sideratio*; which alſo calleth thoſe Beaſts that have this diſeaſe *Jumenta ſideratitia*. The Phyſitians ſay, that it cometh of abundance of phlegm and choler mixt together, or elſe of melancholy bloud, which is a cold dry humor oppreſſing the hinder parts of the brain. But *Vegetius* ſaith, that it comes of ſome extream outward cold, ſtriking ſuddenly into the empty veins, or ſome extream heat or raw digeſtion; or elſe of ſome great hunger, cauſed by long faſting. It is eaſie to know by the deſcription before mentioned.

As touching the cure, *Vegetius* ſaith, that if it come of cold, then it is good to give him to drink one ounce of *Laſerpitium*, with Wine and Oyl mixt together, and made luke-warm: if of heat, then to give it him with Water and Honey: if of crudity, then to heal him by faſting: if of hunger, then by feeding him well with Peaſe. But *Martin* ſaith, that this diſeaſe is called of the *French* men *Surprins*, and it cometh (as he ſaith) moſt chiefly of cold taken after heat, and he wiſheth a Horſe that is thus taken, to be cured in this ſort. Firſt to be let bloud on both ſides of the breaſt, and then to be put in a heat either by continual ſtirring and moleſting him; or elſe if he will ſtir by no means, then to bury him all ſave the head in a warm dunghill, and there to let him ly untill his limbs have ſome feeling. And before you ſo bury him, it ſhall be good to give him this drink: Take of Malmſie three pintes, and put thereunto a quartern of Sugar, and ſome Cinamon and Cloves, and let him drink it good and warm, and untill he be perfectly whole, let him be kept warm, and often exerciſed and walked up and down in the ſtable, and thinly dieted, and drink nothing but warm water, wherein if you put ſome Fennel and Parſley ſeed, to provoke him to urine, it ſhall be the better. And if he cannot dung, let him be raked, and have a Glyſter made of the broth of Mallows and freſh Butter.

Another of a Horſe that is taken.

Markham. A Horſe which is bereft of his feeling, moving or ſtirring, is ſaid to be taken, and in ſooth ſo he is, in that he is arreſted by ſo villainous a diſeaſe; yet ſome Farryers, not well underſtanding the ground of the diſeaſe, conſter the word taken, to be ſtricken by ſome Planet, or evill ſpirit, which is falſe; for it proceedeth of too great abundance of phlegm and choler, ſymbolized together: the cure is thus; Let him bloud in his ſpur veins, and his breaſt veins, and then by foulding him in abundant number of cloaths, drive him into an extream ſweat, during which time of his ſweating, let one chafe his legs with Oyl-de-bay; then after he hath ſweat the ſpace of two hours, abate his clothes moderately; and throughly after he is dry, anoint him all over with Oyl *Petrolium*, and in twice or thrice dreſſing him he will be ſound.

Of the Staggers.

Blundevile. This is a dizzineſs of the head, called in *Latine*, *Vertigo*; and of the *Italians*, as I remember, *Capiſtura*. It cometh of ſome corrupt bloud, or groſs and tough humors oppreſſing the brain, from whence proceedeth a vaporous ſpirit, diſſolved by a weak heat, which troubleth all the head. The ſignes be theſe; dimneſs of ſight, the reeling and ſtaggering of the Horſe, who for very pain will thruſt his head againſt the walls, and forſake his meat. The cure according to *Martin* is thus:

Let him bloud in the temple veins, and then with a knife make an hole an inch long over-thwart his fore-head, hard underneath his fore-top, and raiſe the skin with a Cornet, thruſting it upward towards the head-ſtale a good handful, and then put in a tent dipt in Turpentine and Hogs greaſe molten together, renewing the tent every day once untill it be whole, and do the like upon the ridge of the rump; but me thinks it were better to do the like, in the powl of his head, or nape of his neck, for ſo ſhould the evill humors have both ways the eaſier and ſpeedier paſſage: and as touching his diet, let him have continually warm drink, and maſhes; and once a day be walked up and down fair and ſoftly to exerciſe his body.

Of the Staggers.

Markham. The Staggers is a dizy diſeaſe, breeding frenzy in a Horſe, which if it be not inſtantly helped, is mortal: the cure is thus; Let him bloud in the temple veins, and then apply to his temples cloth wet in the juyce of Garlike, and *Aqua vitæ* mixt together: if you cruſh Garlike, and put it in his ears, it is excellent; or if you ſlit his fore-head, and looſening the skin from the bone, taint it with Turpentine and Sallet-oyl, it will undoubtedly help him.

Of the Falling-evil.

Blundevile.

THis is a kinde of Convulſion or Cramp, called of the *Latines* by the *Greek* name *Epilepſia*; in *Italian, Il morbo caduco*, depriving the Beaſt at certain times, and for a certain ſpace of the uſe of feeling, hearing, and ſeeing, and of all the other ſenſes. And although it be a diſeaſe hath been ſeldom ſeen to chance unto Horſes of this Countrey, yet it appeareth by *Abſyrtus*, and alſo by *Vegetius*, and divers others, that Horſes be ſubject thereunto. For *Abſyrtus* writing to his friend *Tiberius Claudius* ſaith, that unto Horſes chanceth many times the Falling-ſickneſs. The ſigns whereof are theſe; The Horſe will fall down ſuddenly, partly through the reſolution of his members, and partly through diſtenſion of his ſinews, and all his body will quiver and quake, and ſometime he will fome at the mouth. *Vegetius* again writeth in this ſort; By a certain courſe of the Moon Horſes and other beaſts many times do fall, and dy for a time as well as men. The ſignes whereof are theſe: Being fallen, their bodies will quiver and quake, and their mouths will fome, and when a man would think that they would dy out of hand, they riſe ſuddenly up and fall to their meat. And by feeling the griſtle of their noſtrils with your finger, you ſhall know whether they will fall often or not; for the more cold the griſtle be, the oftner, and the leſs cold it be, the ſeldomer they will fall. The cure:

Let him bloud abundantly in the neck veins, and within five days after, let him bloud again in the temple veins, and let him ſtand in a warm and dark ſtable, and anoint all his body with comfortable Ointments, and his head and ears with Oyl of Bay, and liquid Pitch or Tar, mingled together. And alſo put ſome thereof into his ears, and then make a Biggen for him of ſome ſoft warm skin, as of a Sheeps skin, or elſe of Canvas ſtuffed underneath with Wool, and make him this purging drink. Take of Radiſh roots two ounces, of the root of the herb called in *Latine, Panax* or *Panaces*, and of Scammony, of each one ounce; beat all theſe things together, and boyl them in a quart of Honey, and at ſundry times as you ſhall ſee it needful, give him a good ſpoonful or two of this in a quart of Ale luke-warm, whereunto would be put three or four ſpoonfuls of Oyl. It is good alſo to blow the powder of Motherwort, or of Pyrethrum, up into his noſtrils; and if the diſeaſe do continue ſtill for all this, then it ſhall be needful to pierce the skin of his fore-head in divers places with a hot iron, and to let out the humors oppreſſing his brain.

Of the Night-mare.

THis is a diſeaſe oppreſſing either Man or Beaſt in the night ſeaſon when he ſleepeth, ſo as he cannot draw his breath, and is called of the *Latines, Incubus*. It cometh of a continual crudity or raw digeſtion of the ſtomach, from whence groſs vapours aſcending up into the head, do oppreſs the brain, and all the ſenſitive powers, ſo as they cannot do their office, in giving perfect feeling and moving to the body. And if this diſeaſe chancing often to a man, be not cured in time, it may perhaps grow to a worſe miſchief, as to the Falling-evil, Madneſs, or Apoplexy. But I could never learn that Horſes were ſubject to this diſeaſe, neither by relation, nor yet by reading, but only in an old *Engliſh* Writer, who ſheweth neither cauſe nor ſignes, how to know when a Horſe hath it, but only teacheth how to cure it with a fond fooliſh charm; which becauſe it may perhaps make you gentle Reader to laugh, as well as it did me, for recreation ſake I will here rehearſe it. Take a flint ſtone that hath a hole of his own kinde, and hang it over him, and write in a bill,

In nomine patris, &c.
Saint George our Ladies Knight,
He walked day, ſo did he night,
Until he her found,
He her beat, and he her bound,
Till truly her troath ſhe him plight,
That ſhe would not come within the night,
There as Saint George our Ladies Knight,
Named was three times, Saint George.

And hang this Scripture over him, and let him alone: with ſuch proper charms as this is, the falſe Fryars in times paſt were wont to charm the money out of plain folks purſes.

Of the Apoplexy.

Blundevile.

THe Apoplexy, is a diſeaſe depriving all the whole body of ſenſe and moving. And if it deprive but part of the body, then it is called of the *Latines* by the *Greek* name *Paralyſis*, in our tongue a Palſie. It proceeds of cold, groſs, and tough humors, oppreſſing the brain all at once, which may breed partly of crudities and raw digeſtion, and partly by means of ſome hurt in the head, taken by a fall, ſtripe, or otherwiſe. As touching Apoplexy, few or none writing of Horſe-leach-craft do make any mention thereof: but of the Palſie *Vegetius* writeth in this manner; A Horſe (ſaith he) may have the Palſie as well as a man, which is known by theſe ſignes: He will go growelling and ſideling like a Crab, carrying his neck awry, as if it were broken, and goeth crookedly with his legs, beating his head againſt the wals, and yet forſaketh not his meat nor drink, and his provender ſeemeth moiſt and wet. The cure. Let him bloud in the temple vein, on the contrary ſide of the wrying of his neck, and anoint his neck with comfortable Oyntment, and ſplent it with ſplents of wood to make it ſtand right, and let him ſtand in a warm ſtable, and give him ſuch drinks as are recited in the next chapter following. But if all this profiteth not, then draw his neck with a hot iron on the contrary ſide: that is to ſay, on the whole ſide, from the neather part of the ear down to the ſhoulders, and draw alſo a good long ſtrike on his temple, on that ſide, and on the other temple make him a little ſtar in this ſort *, and from his reins to his mid back, draw little lines, in manner of a ragged ſtaffe, and that will heal him.

Of the Cramp or Convulſion of the Sinews and Muſcles.

A Convulſion or Cramp, is a forcible and painful contraction or drawing together of the ſinews and muſcles, which do happen ſometime through the whole body, and ſometime but in one part or member only. And according as the body may be diverſly drawn, ſo do the Phyſitians, and alſo mine Authors that write of Horſe-leech-craſt, give it divers names. For if the body be drawn forward, then they call it in *Greek*, ***Emproſthotonos***; in *Latine*, *Tenſio ad anteriora*. And if the body be drawn back, it is called in *Greek*, *Opiſthotonos*; in *Latine*, *Tenſio ad poſteriora*.

But if the body be ſtark and ſtrait, bowing neither forward, nor backward, then it is called ſimply in *Greek*, *Tetanos*; in *Latine*, *Diſtenſio* or *Rigor*: which names alſo are applyed to the like Convulſions of the neck. Notwithſtanding, ***Vegetius*** writing of this diſeaſe, entituleth his chapters *de Roboroſis*, a ſtrange tearm, and not to be found again in any other Author. A Convulſion, as I ſaid before, may chance as well to one part or member of the body, as to the whole body: as to the eye, to the skin of the fore-head, to the roots of the tongue, to the jaws, to the lips, to the arm, hand or leg: that is to ſay, whenſoever the ſinew or muſcle ſerving to the moving of that part, is evill affected or grieved Of which Convulſions, though there be many divers cauſes: yet *Hippocrates* bringeth them all into two: that is to ſay, into fulneſs and emptineſs: for when a Convulſion proceedeth either of ſome inflamation of ſuperfluous eating or drinking, or for lack of due purgation, or of overmuch reſt and lack of exerciſe, all ſuch cauſes are to be referred to repletion or fulneſs. But if a Convulſion come by means of over-much purging or bleeding, or much watching, extream labour, long faſting; or by wounding or pricking of the ſinews, then all ſuch cauſes are to be referred unto emptineſs. And if the Convulſion proceed of fulneſs, it chanceth ſuddenly, and all at once; but if of emptineſs, then it cometh by little and little, and leiſurely.

Beſides theſe kindes of Convulſions, there is alſo chancing many times in a mans fingers, legs and toes, another kinde of Convulſion, which may be called a windy Convulſion, for that it proceeds of ſome groſs or tough vapour, entred into the branches of the ſinews, which maketh them to ſwell like a Lute ſtring in moiſt weather, which though it be very painful for the time, yet it may be ſoon driven away, by chafing or rubbing the member grieved with a warm cloth. And this kinde of Convulſion or Cramp chanceth alſo many times to a Horſes hinder-legs ſtanding in the ſtable.

For I have ſeen ſome my ſelf, that have had one of their hinder-legs drawn up with the Cramp almoſt to the belly ſo ſtiffe and hard, as no man hath been able to ſtir it, neither could the Horſe himſelf ſet it down to the ground of a long ſeaſon, which I think might be ſoon remedied: firſt by continual chafing, fretting, or rubbing his legs with a good wiſpe, and then by tying up the other hinder-leg, or elſe the foreleg on the ſore ſide, whereby he ſhould be forced to ſet down the pained leg. Thus far I have diſcourſed of the Convulſion of ſinews, and of the cauſes thereof, according to the opinions of the learned Phyſitians. Now I will briefly ſhew you the cauſes, ſignes, and cure thereof, according to the doctrine of mine Authors that write of Horſe-leech-craft.

Abſyrtus ſaith, that this diſeaſe doth come, either by driving the Horſe into a ſweat when he halteth, or for that he hath troden upon ſome nail, or by taking cold after journeying and ſweating in Winter ſeaſon, whereby his lips are clung together, or by long lying and reſt after ſweating, whereby the ſinews of his fore-legs be nummed, or by having ſome ſtripe of his privy members; or by long travelling in the cold Mountains, where Snow and Ice doth abound. For *Theomneſtus* writeth, that coming out of *Pæonia*, with the King and his Army, and paſſing over the Mountains to go into *Italy*, there fell ſuch abundance of Snow, as not only many Souldiers dyed, ſitting ſtill on their Horſes backs, with their Weapons in their hands, being ſo ſtark and ſtiffe, and cleaving ſo faſt to their Saddles, as they could not eaſily be pulled out of them: but alſo divers Horſes in their going were ſo nummed as they could not bow their legs: yea and ſome were found ſtark dead, ſtanding ſtill on their feet, and few Horſes or none eſcaped at that time free from this Convulſion of ſinews, inſomuch that *Theomneſtus* his own Horſe which he loved dearly, was ſore vexed therewith. The ſignes to know whether a Horſe be troubled with the Convulſion in the ſinews or not, be theſe:

His head and neck will be ſo ſtiffe and ſtark, as he can bow it no manner of way, his ears will ſtand right up, and his eyes will be hollow in his head, and the fleſhy parts thereof in the great corners will be turned backward; his lips will be clung faſt together, ſo as he cannot open his mouth, and his tongue ſo nummed as he can neither eat nor drink; his back-bone and tail will be ſo ſtiffe, as he cannot move it one way nor other and his legs ſo ſtiffe, as they will not bow, and being laid he is not able to riſe, and ſpecially on his hinder-legs, but falleth down on his buttocks, like a Dog when he ſitteth on the ground; and by means of the Convulſion in his back, his bladder alſo for neighbour-hood ſake, ſuffereth, whereby the Horſe cannot ſtale, but with great pain. The cure.

Put him into a ſweat, either by burying him all ſave the head in ſome warm dunghill; or if he be a Horſe of price, carry him into a hot houſe, where is no ſmoke, and let him ſweat there. Then anoint all his body, head, neck, legs, and all, with Oyl of Cypres, and Oyl of Bay mingled together. Or elſe with one of theſe Ointments: Take of Hogs greaſe two pound, of Turpentine half a pound, of Pepper beaten in powder one dram, of new Wax one pound, of old Oyl two pound; boil all theſe together, and being made very warm, anoint all his body therewith. Or elſe with this Ointment: Take of new Wax one pound, of Turpentine four ounces, of Oyl-de-bay as much, of Opopanax two ounces, of Deers ſewet and Oyl of Storax, of each three ounces, melt all theſe together, and anoint all his body therewith.

It is good alſo to bath his head with the decoction of Fitches, or elſe of Lupines, and make him this drink: Take twenty grains of long Pepper, finely beaten into powder, of Cedar two ounces, of Nitre one ounce, of *Laſerpitium* as much as a Bean, and mingle all theſe together with a ſufficient quantity of white Wine; and give him thereof to drink a quart every morning and evening, for the ſpace of three or four days; or elſe this drink: Take of Opopanax two ounces, of Storax three ounces, of Gentian three ounces, of Manna Succary three ounces, of Myrrhe one ſcruple, of long Pepper two ſcruples, give him this with old Wine: or make him a drink of *Laſerpitium*, Cumin, Aniſe ſeed, Fenigreek, Bay-berries, and old Oyl.

In old time they were wont to let him bloud in the Temples, which *Abſyrtus* doth not allow, ſaying, that it will cauſe the ſinews of his lips to dry up, ſo as the Horſe being not able to move them, ſhall pine for hunger. As touching his diet, give him at the firſt warm maſhes, and ſuch ſoft meat as he may eaſily get down, and wet Hay, bringing him to harder food by little and little. And in any caſe, let him be kept very warm, and ridden or walked once a day to exerciſe his legs and limbs. *Theomneſtus* cured his Horſe, as he ſaith, by placing him in a warm ſtable, and by making a clear fire without any ſmoke round about him; and the Horſe not being able to open his jaws of himſelf, he cauſed his mouth to be opened, and put therein ſops dipt in a confection called *Entrigon conditum*, and alſo anointed all his body with a Medicine or Ointment called *Acopum* (the making whereof hereafter followeth) diſſolved in Cypres Oyl, which made him to fall into a ſweat, and being before half dead and more, brought him again to his feeling and moving, ſo as he did riſe and eat his meat.

Of the Cramp or Convulſions of the Sinews or Muſcles.

A Convulſion or Cramp, is a forcible drawing together of the ſinews, ſometimes univerſally over the whole body; as I have ſeen one Horſe in my life time, and ſometimes but in one part or member, as I have known and helpt divers. Theſe Convulſions have two grounds, namely, either natural, or elſe accidental; natural, as proceeding of cold windy humors ingendered in the body, and diſperſed into thoſe parts, work there the effects of grievance. Accidental, is by wounding or pricking the ſinews, of which immediately enſueth a Convulſion. If it be natural, and the diſeaſe generally diſperſed; then the cure is thus: Dig a great deep hole in ſome old dunghil, and there bury him all ſave the head, ſo as he may ſweat there for the ſpace of two hours at the leaſt; then take him out, and anoint his body all over with Nerve oil, Turpentine, and Deers ſuet mingled together on the fire, and bath his head in the juyce of Rue and Camomile.

Then give him to drink old Ale brewd with Cinamon, Ginger, Fenigreek and long Pepper: of each three ounces. As for his diet, let it be warm maſhes, ſodden wheat and hay, throughly carded with a pair of Wool-cards: let him be kept very warm and aired abroad once a day at the leaſt.

If this Convulſion be but only in one member, then it is ſufficient, if every day with hard ropes of hay or ſtraw you rub and chafe that part exceedingly, and apply there to a little quantity of the Oyl of Pepper. If the Convulſion be accidental, proceeding of ſome hurt, whereby the ſinew is wounded or prickt; then ſhall you incontinently take up the ſinew ſo wounded, ſearching the wound with great diſcretion, and cut it clean in ſunder; then ſhall you endeavour to heal up the ſame with unguents, plaiſters and balms, as ſhall be hereafter mentioned in the chapters of wounds and ulcers, of what kinde or nature ſoever.

Markham.

Of the Cold in the Head.

According as the cold which the Horſe hath taken, is new or old, great or ſmall, and alſo according as humors do abound in his head, and as ſuch humors be thick or thin, ſo is the diſeaſe more or leſs dangerous. For if the Horſe caſteth little or no matter out of his noſe, or hath no very great cough, but only heavy in his head, and perhaps lightly cougheth now and then, it is a ſign that he is ſtopped in the head, which we were wont to call the poſe. But if his head be full of humors congealed by ſome extream cold taken of long time paſt; and that he caſteth foul filthy matter out at the noſe, and cougheth grievouſly; then it is a ſign that he hath either the Glaunders, or the Strangullion, mourning of the chein, or Conſumption of the Lungs. For all ſuch diſeaſes do breed for the moſt part of the rheume or diſtillation that cometh from the head. Of the cures thereof we leave to ſpeak, until we come to talk of the diſeaſes in the throat, minding here to ſhew you how to heal the poſe or cold before mentioned.

Blundevile.

Martin ſaith, it is good to purge his head, by perfuming him with Frankincenſe, and alſo to provoke him to neeze, by thruſting two Gooſe feathers dipt in Oyl-de-bay up into his noſtrils, and then to trot him up and down half an hour, for theſe feathers will make him to caſt immediately at the noſe. *Laurentius Ruſſius* would have him to be perfumed with Wheat, Pennyroyal, and Sage ſodden well together, and put into a bag ſo hot as may be; which bag would be ſo cloſe faſtened to his head, that all the ſavour thereof may aſcend up into his noſtrils, and his head alſo would be covered and kept warm: and to provoke him to neeze, he would have you to binde a ſoft clout anointed with Sope; or elſe with Butter and Oyl-de-bay unto a ſtick, and to thruſt that up and down into his noſtrils, ſo high as you may conveniently go, and let him be kept warm, and drink no cold water. Yea, it ſhall be good for three or four days, to boil in his water a little Fenigreek, Wheat meal, and a few Aniſe-ſeeds. And every day after that you have purged his head by perfuming him, or by making him to neeze, cauſe him to be trotted up and down, either in the warm Sun, or elſe in the houſe half an hour, which would be done before you water him, and give him his provender.

Of the Cold in the Head.

Markham.

THe poſe or cold in a Horſe, is the moſt general diſeaſe that hapneth, and is the eaſieſt perceived, both by ſtopping, ratling in the noſe, and coughing, the cure thereof is in this ſort: If it be but newly taken by ſome careleſs regard, and immediately perceived, you ſhall need no other remedy, but to keep him warm every morning and evening after his water, to ride him forth, and to trot him up and down very faſt till his cold break, and then gently to gallop him a little, which moderate exerciſe with warm keeping will quickly recover him again; but if the cold hath had long reſidence in him, and ſtill encreaſeth, then you ſhall give him this drink three days together: Take of ſtrong Ale one quart, of the beſt Treakle ſix penny-worth, of long Pepper and grains, of each as much beaten to powder, of the juyce of Garleek two ſpoonfuls, boyl all theſe together, and give it the Horſe to drink; ſo warm as he may ſuffer it, and then trot him up and down by the ſpace of an hour or more, and keep him warm, giving him to drink no cold water.

Of the diſeaſes of the Eyes.

Blundevile.

HOrſes eyes be ſubject to divers griefs, as to be wateriſh or bloud-ſhotten, to be dim of ſight, to have the Pin and Web, and the Haw, whereof ſome comes of inward cauſes, as of humors reſorting to the eyes, and ſome of outward, as of cold, heat, or ſtripe.

Of Weeping or Watering Eyes.

THis, as *Laurentius Ruſſius* ſaith, may come ſometime by confluence of humors, and ſometime by ſome ſtripe, whoſe cure I leave to recite, becauſe it doth not differ from *Martins* experience here following: Take of Pitch, Roſen and Maſtick, a like quantity, melt them together. Then with a little ſtick, having a clout bound to the end thereof, and dipt therein, anoint the temple veins on both ſides, a handful above the eyes, as broad as a Teſtern, and then clap unto it immediately a few flocks of like colour to the Horſe, holding them cloſe to his head with your hand, untill they ſtick faſt unto his head, then let him bloud on both ſides, (if both ſides be infected) a handful under the eyes. *Ruſſius* alſo thinketh it good to waſh his eyes once a day with pure pure white wine, and then to blow therein a little of *Tartarum*, and of Pumice ſtone, beaten into fine powder.

Of Watering Eyes.

Markham.

WAtering eyes come moſt commonly in ſome ſtripe or blow, and the cure is thus: Lay unto his temples a plaiſter of Turpentine and Pitch molten together, then waſh his eyes with white Wine, and afterward blow the powder of burnt Allum into the ſame.

Of Bloud-ſhotten Eyes, alſo for a blow or itching, and rubbing in the Eyes.

Blundevile.

M*Artin* never uſed any other medicine, then this water here following, wherewith he did always heal the foreſaid griefs: Take of pure Roſe water, of Malmſie, of Fennel water, of each three ſpoonfuls, of Tutia as much as you can eaſily take with your thumb and finger, of Cloves a dozen beaten into fine powder; mingle them together, and being luke-warm, or cold if you will, waſh the inward part of the eye with a feather dipt therein, twice a day untill he be whole. *Ruſſius* ſaith, that to bloud-ſhotten eyes it is good to lay the white of an Egge, or to waſh them with the juyce of Celidony.

Another of Bloud-ſhotten Eyes, or any other ſore Eye, coming of rheume or other humor.

Markham.

FOr any ſore eye make this water: Take of the water of Eye-bright, of Roſe water, and Malmſey, of each three ſpoonfuls, of Cloves ſix or ſeven beaten to fine powder; of the juyce of Houſeleek two ſpoonfuls; mix all theſe together, and waſh the Horſes eyes therewith once a day, and it will recover him.

Of dimneſs of ſight, and alſo for the Pin and Web, or any other ſpot in the Eye.

Blundevile.

IF the Horſe be dim of ſight, or hath any Pearl growing in his eye, or thin film covering the ball of his eye, then *Ruſſinus* would have you take of Pumice ſtone, of *Tartarum*, and of *ſal Gemme*, of each like weight, and being beaten into very fine powder, to blow a little of that in his eye, continuing ſo to do every day once or twice, untill he be whole. *Martin* ſaith, that he always uſed to blow a little Sandivoir into the eye once a day, which ſimple he affirmeth to be of ſuch force, as it will break any Pearl or Web in ſhort ſpace, and make the eye very clear and fair. *Ruſſius* amongſt a number of other medicines, praiſeth moſt of all the powder of a black flint ſtone.

Of the Pin and Web, and other dimneſs.

Markham.

FOr to cure the Pin, Web, Pearl, Film, or other dimneſs, uſe this means following: Take of Sandivoir, the powder of burnt Allum, and the powder of black Flint-ſtone, of each like quantity: and once a day blow a little thereof into the Horſes eye, and it will wear away ſuch imperfect matter, and make the eye clear.

Of the Haw, called of the Italians, Il unghia de gli occhi.

Blundevile.

THis is a griſtle covering ſometime more then one half of the eye. It proceedeth of groſs and tough humors, deſcending out of the head; which Haw, as *Martin* ſaith, would be cut away in this ſort: Firſt, pull both the eye-lids open with two ſeveral threds, ſtitched with a needle to either of the lids. Then catch hold of the Haw with another needle and thred, and pull it out ſo far as you may cut it round the bredth of a penny, and leave the black behinde. For by cutting away too much of the fat and black of the eye, the Horſe many times becometh blear-eyed. And the Haw being clean taken away, ſquirt a little white Wine or Beer into his eye.

Another of the Haw.

Markham.

A Haw is a groſs griſtle growing under the eye of a Horſe, and covering more then one half of his ſight; which if he be ſuffered will in ſhort time periſh the eye: the cure is thus: Lay your thumb under his eye, in the very hollow, then with your finger pull down the lid, and with a ſharp needle and thred take hold of the Haw, and plucking it out, with a ſharp knife, cut it away the compaſs of a penny, or more, that done, waſh the eye with a little Beer.

Of Lunatick Eyes.

Blundevile.

VEgetius writeth *De oculo Lunatico*, but he ſheweth neither cauſe nor ſignes thereof, but only ſaith that the old men tearmed it ſo, becauſe it maketh the eye ſometime to look as though it were covered with white, and ſometime clear.

Martin ſaith, that the Horſe that hath this diſeaſe, is blinde at certain times of the Moon, inſomuch that he ſeeth almoſt nothing at all during that time, and then his eyes will look yellowiſh: yea, and ſomewhat reddiſh, which diſeaſe according to *Martin*, is to be cured in this ſort: Firſt, uſe the plaiſter mentioned before in the chapter of Wateriſh or Weeping eyes, in ſuch order as is there preſcribed; and then with a ſharp knife make two ſlits on both ſides of his head an inch long, ſomewhat towards the noſe, a handful beneath the eyes, not touching the vein: and with a cornet looſen the ſkin upward the breadth of a groat, and thruſt therein a round peece of leather, as broad as a two penny peece, with a hole in the midſt to keep the hole open, and look to it once a day, that the matter may not be ſtopped, but continually run the ſpace of ten days, then take the leather out, and heal the wound with a little flax dipt in the ſalve here following: Take of Turpentine, of Honey, of Wax, of each like quantity, and boyl them together, which being a little warmed, will be liquid to ſerve your purpoſe, and take not away the plaiſters from the temples untill they fall away of themſelves, which being fallen, then with a ſmall hot drawing Iron, make a ſtar in the midſt of each temple-vein where the plaiſter did ly. Which ſtar would have a hole in the midſt made with the button end of your drawing Iron.

Another of Lunatick or Moon-eyes.

Markham. OF theſe Lunatick eyes, I have known divers: they are blinde at certain times of the Moon, they are very red, fiery, and full of film: they come with over-riding, and extraordinary heat and fury, the cure of them is thus: Lay upon the Temples of his head a plaiſter of Pitch, Rozen, and Maſtick molten together very exceeding hot: then with a little round Iron made for the purpoſe, burn three or four holes an inch or more underneath his eyes, and anoint thoſe holes every day with Hogs greaſe, then put it in his eyes every day with a little Honey, and in ſhort time he will recover his ſight.

Of the Canker in the Eye.

Blundevile. THis cometh of a ranck and corrupt bloud deſcending from the head into the eye. The ſignes. You ſhall ſee red pimpſes, ſome ſmall, and ſome great, both within and without upon the eye-lids, and all the eye will look red, and be full of corrupt matter. The cure according to *Martin* is thus: Firſt, let him bloud on that ſide the neck, that the eye is grieved, the quantity of a pottle. Then take of Roch Allum, of green Copperas, of each half a pound, of white Copperas one ounce, and boil them in three pintes of running water, untill the half be conſumed, then take it from the fire, and once a day waſh his eye with this water being made luke-warm with a fine linnen cloth, and cleanſe the eye therewith ſo oft as it may look raw, continuing thus to do every day untill it be whole.

Of diſeaſes incident to the Ears, and Poll of the head, and firſt of an Impoſtume in the Ear.

IMpoſtumes breed either by reaſon of ſome blow or bruiſing, or elſe of evill humors congealed in the ear by ſome extream cold; the ſignes be apparent, by the burning and painful ſwelling of the ear and part thereabout. The cure according to *Martin* is in this ſort. Firſt, ripe the Impoſtume with this plaiſter. Take of Linſeed beaten into powder, of Wheat flowre, of each half a pinte, of Honey a pinte, of Hogs greaſe, or Barrows greaſe one pound. Warm all theſe things together in an earthen pot, and ſtir them continually with a flat ſtick or ſlice, untill they be throughly mingled and incorporated together, and then ſpread ſome of this plaiſter, being warm, upon a peece of linnen cloth, or ſoft white leather, ſo broad as the ſwelling, and no more, and lay it warm unto it, and ſo let it remain one whole day, and then renew it with freſh Ointment, continuing ſo to do untill it break); then lance the ſore, ſo that it may have paſſage downward, and tent it to the bottom with a tent of flax dipt in this Ointment: Take of *Mel Roſatum*, of Oyl Olive and Turpentine, of each two ounces, and mingle them together, and make him a biggen of Canvas to cloſe in the ſore, ſo as the tent with the Ointment may abide within, renewing the tent once a day untill it be whole. But if the Horſe have pain in his ears, without any great ſwelling or Impoſtumation, then thruſt in a little black Wooll dipt in Oyl of Camomile, and that will heal it,

Of the Poll evill.

THis is a diſeaſe like a Fiſtula growing betwixt the ears and the poll or nape of the neck, and proceedeth of evill humors gathered together in that place, or elſe of ſome blow or bruiſe, for that is the weakeſt and tendereſt part of all the head, and therefore ſooneſt offended, which rude Carters do little conſider, whileſt in their fury they beat their Horſes upon that place of the head with their whip-ſtocks; and therefore no Horſe is more ſubject to this diſeaſe then the Cart-horſe; and this diſeaſe cometh moſt in Winter ſeaſon. The ſignes. You ſhall perceive it by the ſwelling of the place, which by continuance of time will break it ſelf, rotting more inward then outward, and therefore is more perillous if it be not cured in time; and the ſooner it be taken in hand, the better. The cure according to *Martin* is thus; If it be not broken, ripe it with a plaiſter of Hogs greaſe laid unto it ſo hot as may be; and make a biggen for the Poll of his head to keep it from cold; which biggen would have two holes open, ſo as his ears may ſtand out; and renew the plaiſter every day once, untill it break, keeping the ſore place as warm as may be.

And if you ſee that it will not break ſo ſoon as you would have it, then there as it is ſofteſt and moſt meeteſt to be opened; take a round hot Iron, as big as your little finger, and ſharp at the point, and two inches beneath that ſoft place, thruſt it in a good deepneſs upward, ſo as the point of the Iron may come out at the ripeſt place, to the intent that the matter may deſcend downward, and come at the neather hole, which would be always kept open; and therefore tent it with a tent of flax dipt in Hogs greaſe, and lay a plaiſter of Hogs greaſe alſo upon the ſame, renewing it every day once the ſpace of four days, which is done chiefly to kill the heat of the fire.

Then at the four days end, take of Turpentine half a pound, clean waſhed in nine ſundry waters, and after that throughly dryed, by thruſting out the water with a ſlice on the diſhes ſide, then put thereunto two yolks of Egges, and a little Saffron, and mingle them well together:

that done, ſearch the depth of the hole with a whole quill, and make a tent of a piece of ſpunge, ſo long as it may reach the bottom, and ſo big as it may fill the wound, and anoint the tent with the aforeſaid Ointment, and thruſt it into the wound, either with that quill, or elſe by winding it up with your finger and thumb, by little and little, untill you have thruſt it home: and lay on the plaiſter of Hogs greaſe made luke-warm renuing it every day once or twice, untill it be whole. But if the ſwelling ceaſe, then you need not to uſe the plaiſter, but only to tent it, and as the matter decreaſeth, ſo make your tent every day leſſer and leſſer, untill the wound be perfectly whole.

Of the Vives.

Blundevile.

THe Vives be certain kernels growing under the Horſes ear, proceeding of ſome rank or corrupt bloud reſorting to the place, which within are full of little white grains, like white ſalt kernels. The *Italians* call them *Vivole*, which if they be ſuffered to grow, *Laurentius Ruſſius* ſaith, that they will grievouſly pain the Horſe in his throat, ſo as he ſhall not be able to ſwallow his meat, nor to breath. They be eaſie to know, for they may be felt, and alſo ſeen: The cure according unto *Martin*, is in this ſort: Firſt draw them down in the midſt with a hot iron, from the root of the ear ſo far as the tip of the ear will reach, being puld down: and under the root again draw two ſtrikes on each ſide like a broad arrow head; then in the midſt of the firſt line lance them with a lancet, and taking hold of the kernels with a pair of pinſons, pull them ſo far forward, as you may cut the kernels out without hurting the vein; that done, fill the hole with white Salt. But *Hierocles* would have them to be cured in this ſort: Take a piece of Spunge ſowſed well in ſtrong Vinegar, and binde that to the ſore, renewing it twice a day untill it hath rotted the kernels; that done, lance the neathermoſt part where the matter lyeth, and let it out, and then fill it up with Salt finely brayed, and the next day waſh all the filth away with warm water, and anoint the place with Honey and Fitch-flowre mingled together. But beware you touch none of the kernels with your bare finger, for fear of venoming the place, which is very apt for a Fiſtula to breed in.

Another of the Vives.

Markham.

THe Vives be certain kernels, growing under the Horſes ear, which come of corrupt bloud, the cure is diverſly ſpoke and written of; but this is the beſt mean which I have tryed, that if you finde the kernels to enflame and grieve the Horſe, take a handful of Sorrel, and lay it in a Bur-dock leaf, and roſt it in the hot embers like a Warden; then being taken out of the fire, apply it ſo hot as may be to the ſore part, ſuffering it to ly thereunto the ſpace of a day and a night, and then renew it, till ſuch time that it ripen and break the ſore, which it will in ſhort ſpace do. When it is broken, and the vilde matter taken away, you ſhall heal up the ſore place with the yolk of an Egge, half a ſpoonful of Honey, and as much Wheat-flowre as will ſerve to make it thick, plaiſter-wiſe, which being bound thereunto, will in three or four days heal the ſame.

Of the Cankerous Ulcer in the Noſe.

Blundevile.

THis diſeaſe is a fretting humor, eating and conſuming the fleſh, and making it all raw within, and not being holpen in time will eat through the griſtle of the noſe. It cometh of corrupt bloud, or elſe of ſharp humors ingendered by means of ſome extream cold. The ſignes be theſe: He will bleed at the noſe, and all the fleſh within will be raw, and filthy ſtinking ſavours, and matter will come out at the noſe. The cure according to *Martin* is thus: Take of green Copperas, of Allum, of each one pound, of white Copperas one quartern, and boil theſe in a pottle of running water, untill a pinte be conſumed, then take it off, and put thereunto half a pinte of Honey: then cauſe his head to be holden up with a drinking ſtaffe, and ſquirt into his noſtrils with a ſquirt of braſs, or rather of Elder, ſome of this water being luke-warm, three or four times one after another, but betwixt every ſquirting, give him liberty to hold down his head, and to blow out the filthy matter, for otherwiſe perhaps you may choke him. And after this it ſhall be good alſo without holding up his head any more, to waſh and rub his noſtrils with a fine clowt bound to a white ſticks end, and wet in the water aforeſaid; and ſerve him thus once a day untill he be whole.

Of bleeding at the Noſe.

I Have ſeen Horſes my ſelf, that have bled at the noſe, which have had neither ſore nor ulcer in their noſe, and therefore I cannot chooſe, but ſay with the Phyſitians, that it cometh by means that the vein which endeth in that place, is either opened, broken or fettered. It is opened many times by means that bloud aboundeth too much, or for that it is too fine, or too ſubtil and ſo pierceth through the vein. Again, it may be broken by ſome violent ſtrain, cut or blow. And finally, it may be fretted or gnawn through, by the ſharpneſs of ſome bloud, or elſe of ſome other humor contained therein. As touching the cure, *Martin* ſaith, it is good to take a pinte of red Wine, and to put therein a quartern of Bole Armony, beaten into fine powder, and being made luke-warm, to pour the one half thereof the firſt day into his noſtril that bleedeth, cauſing his head to be holden up, ſo as the liquor may not fall out, and the next day to give him the other half. But if this prevaileth not, then I for my part would cauſe him to be let bloud in the breaſt vein, on the ſame ſide that he bleedeth at ſeveral times: then take of Frankincenſe one ounce, of Aloes half an ounce, and beat them into powder, and mingle them throughly with the whites of Egges, untill it be ſo thick as Honey, and with ſoft Hares hair, thruſt it up into his noſtril, filling the hole ſo full, as it cannot fall out; or elſe fill his noſtrils full of Aſſes dung, or Hogs dung, for either of them is excellent good to reſtrain any flux of bloud.

Of the bleeding at the Noſe, or to ſtanch Flux of bloud in any ſort.

Markham. I Have known many Horſes in great danger by bleeding, and I have tryed divers remedies for the ſame, yet have I not found any more certain then this: take a ſpoonful or two of his bloud, and put it in a Sawcer, and ſet it upon a chafing diſh of coals, and let it boyl till it be all dryed up into powder, then take that powder, and if he bleed at the noſe, with a Cane or Quill blow the ſame up into his noſtrils: if his bleeding come of any wound or other accident, then into the wound put the ſame powder, which is a preſent remedy. New Horſe-dung, or earth, is a preſent remedy, applyed to the bleeding place; and ſo are Sage leaves bruiſed and put into the wound.

Of the diſeaſes in the Mouth, and firſt of the bloudy Rifts, or Chops in the Palat of the Mouth.

Blundevile. THis diſeaſe is called of the *Italians*, *Palatina*; which as *Laurentius Ruſſius* ſaith, cometh by eating hay or provender that is full of pricking ſeeds, which by continual pricking and fretting the furrows of the mouth do cauſe them to ranckle, and to bleed corrupt and ſtinking matter, which you ſhall quickly remedy, as *Martin* ſaith, by waſhing firſt the ſore places with Vinegar and Salt, and then by anointing the ſame with Honey.

Of the Bladders in a Horſes mouth, which our old Farriers were wont to call the Gigs. The Italians call them Froncelle.

THeſe be little ſoft ſwellings, or rather puſtules with black heads, growing in the inſide of his lips, next unto the great jaw-teeth, which are ſo painful unto the Horſe, as they make him to let his meat fall out of his mouth; or at the leaſt to keep it in his mouth unchawed, whereby the Horſe proſpereth not: *Ruſſius* ſaith, that they come either by eating too much cold graſs, or elſe pricking, duſty, and filthy provender. The cure whereof, according to *Martin*, is in this ſort: Slit them with a lancet, and thruſt out all the corruption, and then waſh the ſore places with a little Vinegar and Salt; or elſe with Allum water.

Of the Bladders in a Horſes mouth.

Markham. SOme Horſes will have bladders like paps growing in the inſide of their lips, next to their great teeth, which are much painful: the cure whereof is thus: Take a ſharp pair of ſhears, and clip them away cloſe to the gum, and then waſh the ſore place with running water, Allum and Honey boiled together, till it be whole.

Of the Lampaſs.

THe Lampaſs, called of the *Italians*, *Lampaſcus*, proceedeth of the abundance of bloud, reſorting to the firſt furrow of the mouth, I mean that which is next unto the upper fore-teeth, cauſing the ſaid furrow to ſwell ſo high as the Horſes teeth, ſo as he cannot chew his meat, but is forced to let it fall out of his mouth. The remdy is to cut all the ſuperfluous fleſh away, with a crooked hot iron made of purpoſe, which every Smith can do.

Another of the Lampaſs.

Markham. THe Lampaſs is a thick ſpongy fleſh, growing over a Horſes upper teeth, hindering the conjunction of his chaps, in ſuch ſort that he can hardly eat: the cure is as follloweth. Cut all that naughty fleſh away with a hot iron, and then rub the ſore well with Salt, which the moſt ignorant Smith can do ſufficiently.

Of the Canker in the mouth.

Blundevile. THis diſeaſe, as *Martin* ſaith, is a rawneſs of the mouth and tongue, which is full of bliſters, ſo as he cannot eat his meat. Which proceeds of ſome unnatural heat, coming from the ſtomach. For the cure whereof, take of Allum half a pound, of Honey a quarter of a pinte, of Columbine leaves, of Sage leaves, of each a handful; boyl all theſe together in three pintes of water, untill a pinte be conſumed, and waſh the ſore places therewith ſo as it may bleed, continuing ſo to do every day once untill it be whole.

Another

Another of the Canker in the mouth.

Markham.

THis diſeaſe proceedeth of divers cauſes, as of unnatural heat of the ſtomach, of foul feeding, or of the ruſt or venome of ſome bit or ſnaffel, undiſcreetly lookt unto. The cure is thus; Waſh the ſore place with warm Vinegar, made thick with the powder of Allum, two or three dayes together, every time until it bleed, which will kill the poiſon and vigor of the exulcerated matter: then make this water; Take of running water a quart, of Allum four ounces, of Hony four or five ſpoonfuls, of Woodbine leaves, of Sage leaves, and of Columbine leaves, of each half a handful, boil all theſe together till one half be conſumed, then take it off, and every day with the water warmed, waſh the ſore until it be whole.

Of the heat in the mouth and lips.

Blundevile.

SOmetime the heat that cometh out of the ſtomach breedeth no Canker, but maketh the mouth hot, and cauſeth the Horſe to forſake his meat. The cure whereof, as *Martin* ſaith, is in this ſort: Firſt, turn up his upper lip, and jagge it lightly with a launcet, ſo as it may bleed, and then waſh both that and all his mouth and tongue with Vinegar and Salt.

Of the tongue being hurt with the bit or otherwiſe.

IF the tongue be cut or hurt any manner of way, *Martin* ſaith, it is good firſt to waſh it with Allum water, and then to take the leaves of black Bramble, and to chop them together ſmall with a little Lard, that done, to binde it up in a little clout, making it round like a ball, then having dipt the round end in Hony, rub the tongue therewith: continuing ſo to do once a day until it be whole.

Of the Barbles or paps underneath the tongue.

THeſe be two little paps, called of the *Italians*, *Barbole*, growing naturally (as I think) in every Horſes mouth underneath the tongue, in the neather jawes, which if they ſhoot of any length, *Ruſſius* ſaith, that they will hinder the Horſes feeding, and therefore he and *Martin* alſo would have them to be clipt away with a pair of ſheers, and that done, the Horſes mouth to be waſhed with Vinegar and Salt.

Of the pain in the teeth and gums, of the Wolfs teeth, and Jaw teeth.

A Horſe may have pain in his teeth, partly by deſcent of humors from his head, down into his teeth and gums, which is to be perceived by the rankneſs and ſwelling of the gums, and partly having two extraordinany teeth, called the Wolfs teeth, which be two little teeth growing in the upper jawes, next unto the great grinding teeth, which are ſo painful to the Horſe, as he cannot endure to chaw his meat, but is forced either to let it fall out of his mouth, or elſe to keep it ſtill half chawed, whereby the Horſe proſpereth not, but waxeth lean and poor, and he will do the like alſo when his upper Jaw-teeth be ſo far grown as they overhang the neather Jaw-teeth, and therewith be ſo ſharp, as in moving his jawes they cut and raſe the inſides of his cheeks, even as they were raſed with a knife. And firſt as touching the cure of the pain in the teeth, that cometh by means of ſome diſtillation: *Vegetius* ſaith, it is good to rub all the outſide of his gums with fine chalk and ſtrong Vinegar mingled together, or elſe after that you have waſhed the gums with Vinegar, to ſtrew on them of Pomegranate piles. But me thinks that beſides this, it were not amiſſe to ſtop the temple veins, with the plaiſter before mentioned, in the Chapter of weeping and wateriſh eyes. The cure of the Wolfs teeth, and of the Jaw-teeth, according to *Martin*, is in this ſort; Firſt cauſe the Horſe head to be tyed up to ſome rafter or poſt, and his mouth to be opened with a cord, ſo wide as you may eaſily ſee every part thereof; Then take a round ſtrong iron toole, half a yard long, and made at the one end in all points like unto the Carpenters gouge, wherewith he maketh his holes to be bored with a wimble or auger, and with your left hand ſet the edge of your tool at the foot of the Wolfs teeth, on the outſide of the jaw, turning the hollow ſide of the tool downward, holding your hand ſteadily, ſo as the tool may not ſlip from the aforeſaid tooth: then having a mallet in your right hand, ſtrike upon the head of the tool one prety blow, and therewith you ſhall looſen the tooth, and cauſe it to bend inward: then ſtaying the midſt of your tool upon the Horſes neather jaw, wrinch the tooth outward, with the inſide or hollow ſide of the tool, and thruſt it clean out of his head: that done, ſerve the other Wolfs tooth on the other ſide in like manner, and fill up the empty places with Salt finely brayed. But if the upper jaw teeth do alſo overhang the neather teeth, and ſo cut the inſide of his mouth as is aforeſaid, then keeping his mouth ſtill open, take your tool and mallet, and pare all thoſe teeth ſhorter, running along them even from the firſt unto the laſt, turning the hollow ſide of your tool towards the teeth, ſo ſhall not the tool cut the inſide of his cheeks, and the back or round ſide being turned towards the foreſaid cheeks, and that done waſh all his mouth with Vinegar and Salt, and let him go.

Blundevil.

Why the diſeaſes in the neck, withers, and back, be declared here before the diſeaſes in the throat.

HAving hitherto ſpoken of the diſeaſes incident to a Horſes head, and to all the parts thereof, natural order requireth that we ſhould now deſcend into the throat, as a part next adjacent to the mouth. But foraſmuch as the diſeaſes in the throat have not only affinity with the head, but alſo with the lungs and other inward parts, which are many times grieved by means of diſtillation coming from the head, and through the throat: I will ſpeak of the diſeaſes incident to the neck, withers, and back of a Horſe, to the intent that when I come to talk of ſuch diſeaſes, as Rheumes and diſtillations do cauſe, I may diſcourſe of them orderly without interruption.

Of the Crick in the neck.

BEcauſe a Crick is no other thing then a kinde of Convulſion, and for that we have ſpoken ſufficiently before of all kindes thereof in the Chapter of Convulſion, I purpoſe not here therefore to trouble you with many words, but only ſhew you *Ruſſius* opinion, and alſo *Martins* experience therein. The Crick then called of the *Italians*, *Scima*, or *Lucerdo* according to *Ruſſius*, and according to *Martin* is, when the Horſe cannot turn his neck any manner of way, but hold it ſtill right forth, inſomuch as he cannot take his meat from the ground but by times, and that very ſlowly; *Ruſſius* ſaith, it cometh by means of ſome great weight laid on the Horſes ſhoulders, or elſe by overmuch drying up of the ſinews of the neck. The cure whereof, according to *Martin*, is in this ſort. Draw him with a hot iron from the root of the ear on both ſides of the neck, through the midſt of the ſame even down to the breſt, a ſtraw deep, ſo as both ends may meet upon the breaſt, then make a hole in his forehead, hard under the foretop, and thruſt in a Cornet upward betwixt the skin and the fleſh a handful deep, then put in a Gooſe feather, doubled in the midſt and anointed with Hogs greaſe to keep the hole open, to the intent the matter may run out the ſpace of ten dayes. But every day during that time, the hole muſt be cleanſed once, and the feather alſo cleanſed and freſh anointed, and ſo put in again. And once a day let him ſtand upon the bit one hour or two, or be ridden two or three miles abroad, by ſuch a one as will bear his head, and make him to bring it in. But if the Crick be ſuch as the Horſe cannot hold his neck ſtraight, but clean awry, as I have ſeen divers my ſelf: then I think it not good that the Horſe be drawn with a hot iron on both ſides of the neck, but only on the contrary ſide. As for example, if he bend his head toward the right ſide, then to draw him as is aforeſaid only on the left ſide, and to uſe the reſt of the cure as is aboveſaid, and if need be, you may ſplent him alſo with handſome ſtaves meet for the purpoſe to make his neck ſtand right.

Of Wens in the neck.

A Wen is a certain kirnell like a tumor of ſwelling, the inſide whereof is hard like a griſtle, and ſpongious like a skin full of wrets. Of Wens, ſome be great, and ſome be ſmall. Again, ſome be very painful, and ſome not painful at all. The Phyſitians ſay, that they proceed of groſſe and vicious humors; but *Vegetius* ſaith, that they chance to a Horſe by taking cold, or by drinking of waters that be extreme cold. The cure according to *Martin* is thus, Take of Mallowes, Sage, and red Nettles, of each one handful, boil them in running water, and put thereunto a little Butter and Honey, and when the Herbs be ſoft, take them out and all to bruiſe them, and put thereunto of oil of Bay two ounces, and two ounces of Hogs greaſe, and warm them together over the fire, mingling them well together; that done, plaiſter it upon a piece of leather ſo big as the Wen, and lay it to ſo hot as the Horſe may endure it, renewing it every day in ſuch ſort, the ſpace of eight days, and if you perceive that it will come to no head, then lance it from the midſt of the Wen downward, ſo deep as the matter in the bottom may be diſcovered and let out; that done, heal it up with this Salve, Take of Turpentine a quarter, and waſh it nine times in fair new water, then put thereunto the yolk of an Egge and a little *Engliſh* Saffron beaten into powder, and make a tent or rowle of Flax, and dip it in that ointment, and lay it unto the ſore, renewing the ſame every day once untill it be whole.

Of ſwelling in the neck after blood-letting.

THis may come of the fleam being ruſty, and ſo cauſing the vein to rankle, or elſe by means of ſome cold wind ſtriking ſuddainly into the hole. The cure according to *Martin* is thus; Firſt anoint it with oil of Camomile warmed, and then lay upon it a little hay wet in cold water, and bind it about with a cloth, renewing it every day the ſpace of five dayes, to ſee whether it will grow to a head, or elſe vaniſh away. If it grow to a head, then give it a ſlit with a lancet, and open it with a Cornet that the matter may come out. Then heal it up, by tenting it with Flax dipt in Turpentine and Hogs greaſe molten together, dreſſing it ſo once a day untill it be whole.

How

How to ſtaunch bloud.

IF a Horſe be let bloud when the ſigne is in the neck, the vein perhaps will not leave bleeding ſo ſoon as a man would have it, which if any ſuch thing chance, then *Ruſius* ſaith, it is good to binde thereunto a little new Horſe dung tempered with chalke and ſtrong Vinegar, and not to remove it from thence the ſpace of three dayes, or elſe to lay thereunto burnt ſilk, felt, or cloth, for all ſuch things will ſtaunch bloud.

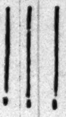
Of the falling of the Creſt.

Blundevile.

THis cometh for the moſt part of poverty, and ſpecially when a fat Horſe falleth away ſuddainly. The cure according to *Martin* is thus; Draw his Creſt the deepneſs a ſtraw, on the contrary ſide with a hot iron, the edge of which iron, would be half an inch broad, and make your beginning and ending ſomewhat beyond the fall, ſo as the firſt draught may go all the way hard upon the edge of the mane, even underneath the roots of the ſame, bearing your hand right downward, into the neckward, then anſwer that with another draught beneath, and ſo far diſtant from the firſt as the fall is broad, compaſſing as it were all the fall, but ſtill on the contrary ſide: and betwixt thoſe two draughts right in the midſt, draw a third draught, then with a button iron of an inch about, burn at each end a hole, and alſo in the ſpaces betwixt the draughts, make divers holes diſtant three fingers broad one from another: that done, to ſlake the fire anoint it every day once, for the ſpace of nine dayes, with a feather dipt in freſh Butter moulten. Then take Mallows and Sage, of each one a handful, boil them well in running water, and waſh the burning away untill it be raw fleſh then dry it up with this powder; Take of Hony half a pinte, and ſo much unſleck't lime as will make that Hony thick like paſte; then hold it in a fire-pan over the fire untill it be baked ſo hard as it may be made in powder, and ſprinkle that upon the ſore places.

Of the falling of the Creſt.

Markham.

THe falling of the Creſt is occaſioned moſt commonly through poverty; yet ſometimes I have ſeen it chance thorough the ill proportion of the Creſt, which being high, thick and heavy, the neck thin and weak underneath, is not able to ſupport or ſuſtain it up, however it be, there is remedy for both: if it proceed of poverty, firſt try by good keeping to get it up again, but if it will not riſe, or that the original of the diſeaſe be in the ill faſhion of the Creſt, then let this be the cure, Firſt with your hand raiſe up the Creſt as you would have it ſtand, or rather more to that ſide from which it declineth, then take up the skin between your fingers on that ſide from which the Creſt ſwarveth, and with a ſharp knife cut away the breadth of very near an inch, and the length of four inches; which done, ſtitch up the skin together again with three or four ſtitches, and by means of ſtrings, weights, or other deviſes, keep the Creſt perforce on that ſide, applying thereunto a plaſter of Deers ſewet and Turpentine, boiled together, till the ſore be healed; and at the ſelf ſame inſtant that by this manner of inſition you draw together and ſtraiten the skin on that ſide, you ſhall in this ſort give liberty to the other ſide, whereby the Creſt may the eaſier attain to his place; Take a hot iron made in faſhion of a knife, the edge being a quarter of an inch broad, and therewith from the upper part of his Creſt unto the neather part of the ſame extending towards his ſhoulder, draw three lines in this forme  and the ſame anoint dayly with freſh Butter, untill ſuch time as it be perfectly whole. By this manner of cure, you may make any lave-ear'd Horſe, to be as prick-ear'd and comely, as any other Horſe whatſoever.

Of the mangineſs of the Mane.

Blundevile.

THe mangineſs proceedeth of rankneſs of bloud, or of poverty, of lowſineſs, or elſe of rubbing where a mangy Horſe hath rubbed, or of filthy duſt lying in the mane for lack of good dreſſing. The ſignes be apparent by the itching and rubbing of the Horſe, and the Scabs, fretting both fleſh and skin. The cure, according to *Martin*, is thus; Take of freſh greaſe one pound, of Quickſilver half an ounce, of Brimſtone one ounce, of Rape oil half a pinte, mingle them together, and ſtir them continually in a pot with a ſlice, untill the Quickſilver be ſo wrought with the reſt, as you ſhall perceive no Quickſilver therein. That done, take a blunt knife, or an old Horſe-comb, and ſcratch all the mangy places therewith untill it be raw and bloudy, and then anoint it with this ointment, in the ſunſhine if it may be, to the intent the ointment may ſink in: or elſe hold before it in a fire-pan or ſome broad bar of iron made hot, to make the ointment to melt into the fleſh. And if you ſee that within the ſpace of three dayes after, with this once anointing, he leave not rubbing, then marke in what place he rubbeth, and dreſſe that place again, and you ſhall ſee it heal quickly.

Of

Of the falling of the hair of the Mane.

IT falleth for the moſt part, becauſe it is eaten with little Wormes, fretting the roots in ſunder; which, according to *Martin*, you ſhall remedy in this ſort; Anoint the mane and Creſt with Sope, then make ſtrong lie and waſh all the mane and Creſt withall, and that will kill the Wormes, within twice or thrice waſhing.

Of griefs in the withers.

TO a Horſes withers and back, do chance many griefs and ſorances, which, as *Ruſſius* ſaith, do ſometime proceed of inward cauſes, as of the corruption of humors; and ſometime of outward cauſes, as through the galling and pinching of ſome naughty ſaddle, or by ſome heavy burthen laid on the Horſes back, or ſuch like. And of ſuch griefs, ſome be but ſuperficial bliſters, ſwellings, light-gals or bruiſings, and be eaſily cured. Some again do pierce to the very bone, and be dangerous, and eſpecially if they be nigh the back bone; let us firſt then ſhew you the cure of the ſmaller griefs, and then of the greater.

Another of bliſterings, or ſmall ſwellings in the withers or back and gallings.

Blundevile. WHenſoever you ſee any ſwelling riſe, then *Martin* would have you to binde a little hot Horſe dung unto it, and that will aſſwage it. If not, then to prick it round about the ſwelling, either with a fleam, or elſe with a ſharp pointed knife not too deep, but ſo as it may pierce the skin, and make the bloud to iſſue forth. That done, take of Mallowes or elſe of Smallage, two or three handfuls, and boil them in running water untill they be ſo ſoft as pap; then ſtrain the water from it, and bruiſe the herbs in a trean diſh, putting thereunto a little Hogs greaſe, or elſe Sallet oil, or Sheeps ſewet, or any other freſh greaſe, boil them and ſtir them together, not frying them hard, but ſo as it may be ſoft and ſupple, and then with a clout lay it warm upon the ſore, renewing it every day once untill the ſwelling be gone. For this will either drive it away, or elſe bring it into his head, which lightly chanceth not, unleſſe there be ſome griſtle or bone periſhed.

Ruſſius biddeth you, ſo ſoon as you ſee any ſwelling riſe, to ſhave the place with a raſor, & lay thereunto this plaiſter; Take a little Wheat flower and the white of an Egge beaten together, and ſpead it on a little clout, which being laid unto the ſwelling two or three dayes and not removed, will bring it to a head, and when you come to take it off, pull it away ſo ſoftly as you can poſſible, and whereas you ſee the corruption gathered together, then in the loweſt place thereof, pierce it upward with a ſharp iron ſomewhat hot, that the corruption may come out, and anoint the ſore place every day once with freſh Butter, or Hogs greaſe; but if the skin be only chafed off without any ſwelling, then waſh the place with Water and Salt, or elſe with warm Wine, and ſprinkle this powder thereon; Take of unſleck't Lime beaten into fine powder, and mingle it with Hony untill it be as thick as any paſte, and make rols or bals theof, and bake them in a fire-pan over the fire, untill they be ſo hard as they may be brought to powder, for this is a very good powder to dry up any galling or ſore. The powder of Myrrhe or burnt ſilk, felt, or cloth, or any old poſt, is alſo good for ſuch purpoſes; but whenſoever you uſe this powder of Lime and Hony, let the place be waſhed, as is aforeſaid.

Of great ſwellings and inflamations in a Horſes withers.

IF the ſwelling be very great, then the cure according to *Martin* is thus; Firſt draw round about the ſwelling with a hot iron, and then croſſe him with the ſame iron in manner of a checker, then take a round hot iron having a ſharp point, and thruſt it into the ſwelling place on each ſide up toward the point of the withers; to the intent the matter may iſſue downward at the holes. That done, tent both the holes with a tent dipt in Hogs greaſe to kill the fire, and alſo anoint all the other burnt places therewith, continuing ſo to do untill the ſwelling be aſſwaged, renewing it every day once, untill the fiery matter be clean fallen away, and then tent him again with waſhed Turpentine mingled with yolks of Egges and Saffron in ſuch manner as hath been aforeſaid, renewing the tent every day once untill it be whole.

If you ſee that the ſwelling for all this go not away, then it is a ſigne of ſome impoſtumation within, and therefore it ſhall be neceſſary to lance it, and to let out the corruption; then take of Hony half a pinte, of Verdigreaſe two ounces beaten to powder, and mingle it together with the Hony, then boil them in a pot untill it look red, then being lukewarm, make either a tent or plaiſter, according as the wound ſhall require, renewing the ſame every day once, untill it be whole. But the ſore may be ſo vehement, that for lack of looking in time, it will pierce downward betwixt both ſhoulders toward the intrails, which is very dangerous: yea, and as *Ruſſius* ſaith, mortal, becauſe the corruption of the ſore infecting the lungs and heart (which be the vitall parts and chief preſervers of life) the body muſt needs decay. And therefore *Martin* would have you to fill the hole with the Salve laſt mentioned, and to thruſt in afterward a piece of a ſpunge, as well to keep the hole open, as alſo to ſuck out the corruption, renewing it every day once untill it be whole.

Of the horns or hard knobs growing under the Saddle ſide.

THis is a dead skin like a piece of leather, called of the *Italians*, *Corno*, that is to ſay, a horn, for that it is hard under hand, and cometh by means of ſome ſtrait Saddle, pinching the Horſe more on the one ſide then on the other; or elſe on both ſides equally. The cure whereof according to *Martin*, is in this ſort; Anoint them with freſh Butter or Hogs greaſe, untill they be mollified and made ſo ſoft as you may either cut them, or pull them away, and then waſh the wound with mans ſtale, or with white Wine, and dry it with powder of unſleck't Lime mixt with Hony. *Blundevile.*

Of Wens or knobs growing about the Saddle skirts.

THeſe be great hard knobs growing moſt commonly betwixt two ribs, apparent to the eye, which by their hardneſs ſeem to come of ſome old bruiſe, and are called of the *Italians*, *le Curſ.* The cure whereof, according to *Martin*, is thus; Firſt mollifie them, by anointing them with Hogs greaſe every day once or twice, the ſpace of eight dayes, and if you perceive that it will come to no head with this, then lance it from the middle downward, that the matter may come out: then tent it with waſhed Turpentine, yolks of Egges, and Saffron mingled together as is aforeſaid, renewing the tent every day once until it be whole.

Of the Navill gall.

THe Navil gall, is a bruiſe on the back behinde the Saddle right againſt the Navil of the Horſe, and thereof taketh his name. It cometh either by ſplitting of the Saddle behinde, or for lack of ſtuffing, or by means of the hinder buckle fretting that place, or elſe by ſome great weight laid on his back: you ſhall perceive it by the puffed up and ſpungy fleſh, looking like rotten Lights or Lungs, and therefore is called of the *Italians*, *Pulmone*, or *Pulmonſello*. The cure whereof, according to *Martin*, is thus; Cut it round about with a ſharp knife or raſor even to the bone, leaving no rotten fleſh behinde: that done, take the white of an Egge and Salt beaten together, and lay that plaiſterwiſe to the ſore upon a little towe, renewing it once a day the ſpace of two dayes. Then take of Hony a quartern of a pinte, and of Verdigreaſe an ounce beat into powder, and boile them together in a pot, ſtirring it ſtill untill it look red, and being lukewarm, make a plaiſter with towe and clap it to the wound, waſhing and cleanſing well the wound firſt with a little warm Vinegar or white Wine, continuing it once a day untill it begin to heal and skin, then dry it up, by ſprinkling thereon this powder following; Take of Hony a quartern, and as much of unſleck't Lime as will thicken the Hony like unto paſte, and in a fire-pan over the fire, ſtir it ſtill until it be hard baked, ſo as it may be beaten into powder, but before you throw on the powder, waſh the wound firſt with warm Vinegar, continuing ſo to do untill it be perfectly skinned and whole.

Of the ſwaying of the back.

THis is called of the *Italians*, *Malſeruto*, and according to *Ruſſius* and *Martins* opinions, cometh either by ſome great ſtrain, or elſe by heavy burthens: you ſhall perceive it by the reeling and rolling of the Horſes hinder parts in his going, which will falter many times, and ſway ſometimes backward, and ſometime ſideling, and be ready to fall even to the ground, and the Horſe being laid, is ſcant able to get up. The cure, according to *Martin*, is thus; Cover his back with a Sheeps skin, coming hot from the Sheeps back, laying the fleſhie ſide next unto his back, and lay a houſing cloth upon the ſame to keep his back as warm as may be, and ſo let it continue until it begin to ſmell; then take the old skin away, and lay a new unto it, continuing ſo to do the ſpace of three weeks. And if he amend not with this, then draw his back with a hot iron out on both ſides of the ridge of his back, from the pitch of the Buttocks, unto a handful within the Saddle, and let every line be an inch diſtant one from another, and then again overthwart checkerwiſe, but let not ſuch ſtrokes be over deep, and ſo burned as every one look yellow, then lay on this charge following; Take Pitch one pound, of Rozen half a pound, of Bole Armony half a pound made in powder, and half a pinte of Tar, and boil all theſe together in a pot, ſtirring it untill every thing be molten and thoroughly mingled together, then being lukewarm, dawb all the burning therewith very thick, and thereupon clap as many flocks of the Horſes colour, as you can make to abide on, and remove it not before it fall away it ſelf, and if it be in Summer, you may turn him to graſſe. *Blundevile.*

Of

Of the weakneſs in the back.

IT doth appear by *Laurentius Ruſſius*, that there is another kind of weakneſs in the back, called in *Italian*, *le gotte* or *morſecatura de le reni*, that is to ſay, the fretting or biting of the reins, which as the ſaid *Ruſſius* ſaith, proceedeth of abundance of humors reſorting to that place, whereby all the hinder parts of the Horſe do loſe their feeling and ſtrength, and the Horſe falleth down on the ground; yea, and ſuch humors reſorting to the heart, do ſuffocate the ſame, and in two or three hours do cauſe the Horſe to die. The remedy, according to *Ruſſius*, is in this ſort; Let him bloud abundantly in the neck, and draw his back with a hot iron, in ſuch ſort as is declared in the laſt Chapter. He ſaith alſo it is good to make him ſwim thorugh a river, and to rowel him on his hanches nigh the huckle bones; and to make the hair to grow again, it is good, as he ſaith, to anoint the place with Hogs greaſe, and three leaved graſſe ſtamped together.

Of Hidebound.

HIdebound, is when the skin cleaveth ſo faſt to the Horſes back, that a man cannot pull it from the fleſh with his hand, which *Ruellius* calleth *Coriago*; it cometh for the moſt part of poverty, or elſe when the Horſe after ſome great heat hath been ſuffered to ſtand long in the rain or wet weather, for that will cauſe the skin to ſhrink, and to cling to his ribs. It is known by the leanneſs of the Horſe, and gantneſs of his belly, and by faſt ſticking of the skin unto the ribs when you pul at it with your hand. The cure, according to *Martin*, is thus: Let him bloud on both ſides the belly in the flank veins betwix the flank and the girding place: that done, give him this drink; Take a quart of white Wine, or elſe of good Ale, and put thereunto three ounces of good Sallet Oil, of Cumin one ounce, of Annis ſeeds two ounces, of Licoras two ounces, beaten all into fine powder, and give it him lukewarm with a horn. And when he hath drunk, let one ſtanding at his huckle bone, rub him hard with his hand along the back, and overthwart the ribs, the ſpace of half an hour: that done, ſet him in a warm ſtable, and let him ſtand in litter up to the belly, and cover all his back and ribs with a ſack firſt, throughly ſoaked in a tub of cold water, and then well and hard wrung, and over that caſt another cloth, and gird it faſt with a ſurcingle, ſtuffing him well about the back with freſh ſtraw, continuing thus to do every day once the ſpace of a week, during which time give him no cold water, but lukewarm, and put therein a little ground Mault. The wet ſack will cauſe the back to gather heat it ſelf, and the skin to looſen from the fleſh, and if you will beſtow more coſt, you may anoint all his body with Wine and oil mingled together, according to the opinion of the old writers, which no doubt is a very comfortable thing, and muſt needs ſupple the skin, and looſen it from the fleſh.

Of the diſeaſes in the throate and lungs, and why the griefs of the ſhoulders and hips be not mentioned before amongſt the griefs of the withers and back.

Blundevile. SOme perhaps would look here, that for ſo much as I have declared the diſeaſes of the neck, withers and back, that I ſhould alſo follow on now with the griefs of the ſhoulders and hips. But ſith that ſuch griefs for the moſt part doe cauſe a Horſe to halt, and that it requireth ſome skill to know when a Horſe halteth, whether the fault be in his ſhoulder, hip, leg, joint, or foot, I think it is not good to ſeparate thoſe parts aſunder, ſpecially ſith nature hath joyned them together, that is to ſay, the ſhoulders to the forelegs, and the hips to the hinder legs. And therefore according to natures order, I will treat of them in their proper place; that is to ſay, after that I have ſhewed all the diſeaſes that be in the inward Horſes body, not only above the midriffe, as the diſeaſes of the throat, lungs, breaſt and heart, but alſo under the midriffe, as thoſe of the ſtomach, liver, guts, and of all the reſt. And firſt, as touching the diſeaſes of the throat, the Glaunders, and Strangullion, to all Horſes is moſt common.

Of the Glanders and Strangullion, ſo called according to the Italian name Stranguillion.

MOſt Farriars do take the Glanders and Strangullion to be all one diſeaſe, but it is not ſo, for the Glanders is that which the Phyſitians call *Tonſillæ*, and the Strangullion is that which they call in *Latine*, *Angina*, in *Greek*, *Cynanch*, and we commonly call it in *Engliſh* the Squinacy, or Quinſie. *Tonſillæ*, is interpreted by them to be the inflamations of the kirnels, called in *Latin*, *Glandes*, the *Italian*, *Glandulæ*, which lie on both ſides of the throat, underneath the root of the tongue, nigh unto the ſwallowing place; of which word *Glandes*, or *Glandulæ*, I think we borrow this name Glanders; for when the Horſe is troubled with this diſeaſe, he hath great kirnels underneath his jawes, eaſie to be ſeen or felt, paining him ſo, as he can not eaſily ſwallow down his meat, which cometh firſt of cold diſtillations out of the head: But if ſuch kirnels be not inflamed, they will perhaps go away of themſelves, or elſe by laying a little hot horſe-dung and ſtraw unto them, the warmth thereof will diſſolve them, and make them to vaniſh away.

But if they be inflamed, they will not go away but encreaſe and wax greater and greater, and be more painful every day then other, and cauſe the Horſe to caſt continually filthy matter at his Noſe. The cure whereof, according to *Martin*, is this; Firſt ripe the kernels with this plaiſter; Take of bran two handfuls, or as much as will thicken a quart of Wine or Ale: then put thereunto half a pound of Hogs greaſe, and boyl them together, and lay it hot to the ſore with a cloth, renewing it every day until it be ready to break, then lance it, and let out all the matter, and tent it with a tent of Flax dipt in this ſalve; Take of Turpentine, of Hogs greaſe, of each like quantity, and a little wax, and melt them together, and renew the tent every day until it be whole. *Laurentius Ruſſius* ſaith, that this diſeaſe is very common to Colts, becauſe in them doth abound fluxible moiſture, apt to be diſſolved with every little heat, and to turn to putrifaction: and therefore if the Horſe be not over young, he would have you firſt to let him bloud in the neck vein, and then to lay unto the ſame ſore a ripening plaiſter, made of Mallowes, Linſeeds, Rew, Wormwood, ground Ivy, Oyl of Bayes, and Dialthea, and to anoint his throat alſo, and all the ſore place with freſh Butter: and the ſore being ripe, to lance it, or elſe to rowel it, that the matter may come forth.

But if the kernels will not decreaſe, then pull them away by the roots, and dry up the Ulcerous place with an ointment made of unſleck't Lime, Pepper, Brimſtone, Nitrum, and Oyl Olive. It ſhall be alſo good to purge his head by perfuming him every day once, in ſuch ſort as hath been before declared And let the Horſe be kept warm about the head, and ſtand in a warm ſtable, and let him drink no cold water: but if you ſee that after you have taken away the kernels, the Horſe doth not for all that leave caſting filthy matter at the Noſe, then it is to be feared that he hath ſome ſpice of the mourning of the Chine, for both diſeaſes proceed of one cauſe, and therefore I think good to ſpeak of it here preſently.

But firſt I will ſet down a drink which I have ſeen proved upon a Horſe that I thought could never have been recovered of the ſame diſeaſe, and yet it did recover him in very ſhort ſpace, ſo as he travelled immediately after many miles, without the help of any other medicine.

A drink for the Strangullion or Glanders,

Blundevill.

TAke of warm milk as it cometh from the Cow a quart, or in ſtead thereof a quart of new Beer or Ale warmed, and put thereunto of moulten Butter the quantity of an Egge; and then take one head of Garlick, firſt clean pilled and then ſtamped ſmall, which you muſt put into the milk or drink being made lukewarm, and give it the Horſe with a horn, and immediately after the drink be given, catch hold of his tongue with your hand, and having broken two raw Egges, either upon his foreteeth, or againſt the ſtaffe wherewith his head is holden up, caſt thoſe broken Egges, ſhels and all into his throat, making him to ſwallow down the ſame; that done, ride him up and down till he begin to ſweat, then ſet him up covered warm with an old coverlet and ſtraw, not ſuffering him to eat nor drink for the ſpace of two or three hours after, and let his drink for the ſpace of two or three dayes be ſomewhat warm, whereunto it is good to put a handful or two of Bran or ground Malt, and in giving the ſaid drink, it ſhall not be amiſſe to powre ſome thereof into either Noſtril.

Of the mourning of the Chine.

THis word, Mourning of the Chine, is a corrupt name borrowed of the *French* tongue, wherein it is called *Morte deſchien*, that is to ſay, the death of the back. Becauſe many do hold this opinion, that this diſeaſe doth conſume the marrow of the back; for remedy whereof, they uſe ſtrange kinds of cures. For ſome taking it to be a rheume, go about to ſtop it, by laying aſtrictive, or binding charges to the nape of the neck. Some again, do twine out the pith of the back with a long wire thruſt up into the Horſes head, and ſo into his neck and back, with what reaſon I know not. Well; I know that few Horſes do recover that have this diſeaſe. Some again think that the Lungs of the Horſe be rotten, and that the Horſe doth caſt them out at his Noſe. But *Martin* ſaith, that he hath cut up divers Horſes which have been judged to have dyed of the mourning of the Chine, but he could finde never either Back or Lungs to be periſhed. but only the Liver, and moſt commonly that ſide of the Liver which anſwereth the Noſtril whereat he caſteth, whereof we will talk in his proper place, when we come to ſpeak of the diſeaſes in the Liver. The *Italians* do call this diſeaſe *Ciamorro*, the old Authors do call it the moiſt malady, whereof *Theomneſtus* maketh two differences. For in the one the matter which he doth caſt at the Noſe is white, and doth not ſmell at all: and in the other that which he caſteth is filthy and ſtinking corruption They proceed both of cold humors congealed in the head, but more abounding in the one then in the other; by reaſon perhaps that the Horſe was not cured in time: for of cold firſt cometh the Poſe, and the Cough, then the Glanders, and laſt of all the Mourning of the Chine, When the Horſe caſteth matter at the Noſe that is not ſtinking, he may eaſily be cured by ſuch remedies as have been before declared in the Chapter of the Poſe: but if the matter be very filthy and ſtinking, then it is very hard to cure. Notwithſtanding it ſhall not grieve me to write unto you here, the experience of *Theomneſtus*, and of *Laurentius Ruſſius*. *Theomneſtus* cure is thus; Take of Water and Hony, called of the Phyſitians *Hydromel*, a quart, and put thereunto three ounces of Oyl, and powre that into his Noſtril every morning the ſpace of three dayes; and if that do not profit him, then let him drink every day, or once in two dayes, a quart of old Wine, mingled with ſome of the medicine, or rather the precious meat, called of the old writers *Tetrapharmacum*, and that will reſtore him to his former eſtate. *Laurentius Ruſſius* ſaith, that of all diſeaſes there is none more perillous, nor more to be ſuſpected, then the rheume which cometh of cold, for Horſes have large Conduites, and are full of moiſture, and therefore if cold once enter, it findeth matter enough to work on, to breed continual diſtillation, as well outwardly at the Noſe, as inwardly, deſcending down to the vitall part in ſuch ſort, as it doth not ſuffocate the ſame.

The ſignes, according to the ſaid *Ruſſius*, be theſe; the Horſe doth caſt matter continually at the Noſe, ſometime thin, and ſometime thick, his Noſtrils, Ears, and all his outward parts, will be cold to the feeling, his eyes, head, and all his body heavy, and he will cough, and have ſmall appetite to his meat, and leſſe to his drink, and ſometime he will tremble and ſhake. His cure is in this ſort; Purge his head, partly by perfuming him, & partly by making him to neeze in ſuch ſort as hath been before taught in the Chapter of the Noſe, which wayes of perfuming and purging his head as they be good, ſo doth *Ruſſius* praiſe theſe two here following to be moſt excellent; the firſt is this: Take of the ſtalks of *Vitis alba*, otherwiſe called *Brionie*, or wilde Vine, two or three good handfuls, and being bruiſed put them into a linnen bag, and faſten the bag to the Horſes head, ſo as he may receive the ſent up into his Noſtrils, without touching the hearb with his mouth, and this will cauſe the humors to run down abundantly. The ſecond medicine; Take of Euforbium beaten into fine powder, three ounces, of the juice of Betes one pound, of Swines bloud half a pound, boyl all theſe together until they be throughly mingled together, and liquid like an ointment, and then take it from the fire, and put thereunto one ounce more of Euforbium, and mingle them again throughly together, and preſerve the ſame in a box, to uſe at needful times in this ſort; Make two ſtiffe long rols or tampins of linnen clouts, or ſuch like ſtuffe, ſharp pointed like Sugar loaves: which tampins are called of the Phyſitians in *Latin*, *Peſſi*, and being anointed with the ointment aforeſaid, thruſt them up into the Horſes Noſtrils, and let them abide therein a pretty while, then pull them out, and you ſhall ſee ſuch abundance of matter come forth at his Noſe, as is marvellous to behold. *Ruſſius* alſo praiſeth very much this medicine here following.

Take as much of the middle bark of an Elder tree, growing on the water ſide, as will fill a new earthen pot of a mean ſize, putting thereunto as much clear water as a pot will hold, and let it boyl until one half be conſumed, and then to be filled up again with freſh water, continuing ſo to do three times one after another, and at the laſt time that the one half is conſumed, take it from the fire, and ſtrain it through a linnen cloth. Then take two parts of that decoction, and one part of Hogs greaſe, or Butter, and being warmed again together, give the Horſe to drink thereof one hornful, and powre another hornful into his Noſtril that caſteth; and whenſoever you give him this medicine, let the Horſe be empty and faſting; and keep him without meat alſo two or three hours after, for this is a very good drink for any ſickneſs that cometh of cold. Moreover, open the skin of his forehead, and of his temples, and alſo of his tail with a ſharp hot iron, that the corrupt humors may iſſue outward. That done, take hot brickes, or elſe a pan of freſh burning coles, and hold it nigh unto his belly and flanks, to the intent that they may be throughly warmed, and being ſo warmed, anoint them all over with Oyl-de-bay, or Dialthea, to defend his body from the cold, and let his head be well covered, and all his belly kept warm. Yea, and it were good to bathe his head ſometime, as *Ruſſius* ſaith, with a bath made of Rew, Wormwood, Sage, Juniper, Bay leaves, and Hyſop. And let his drink be warm water mingled with Wheat meal; yea, and to make it the more comfortable, it were good, as *Ruſſius* ſaith, to put thereunto ſome Cinamon, Ginger, Galingale, and ſuch hot pieces. And his meat in Winter ſeaſon would be no other but ſodden Corn, or warm Maſhes, made of ground Malt and Wheat bran: in Summer ſeaſon, if he went to graſſe, I think it would do him moſt good, ſo that he go in a dry warm ground, for by feeding alwayes downward, he ſhall purge his head the better, as *Ruſſius* ſaith. Thus much of the Glanders, and mourning of the Chine. Now we will ſpeak ſomewhat of the Strangullion, according to the opinion of the Authors, though not to the ſatisfaction perhaps of our *Engliſh* Farriars.

Of the Strangullion or Squinancy.

THe Strangullion, called of the *Latines*, *Angina*, according to the Phyſitians, is an inflamation of the inward parts of the throat, and as I ſaid before, is called of the *Greeks*, *Cynanche*, which is as much to ſay in *Engliſh* as Strangling, whereof this name Strangullion as I think is derived, for this diſeaſe doth ſtrangle every Man or Beaſt, and therefore is numbred amongſt the perillous and ſharp diſeaſes, called of the *Latines*, *Morbi acuti*; of which ſtrangling, the Phyſitians in Mans body make four differences; The firſt and worſt is, when no part within the mouth nor without, appeareth manifeſtly to be inflamed, and yet the patient is in great peril of ſtrangling. The ſecond is, when the inward parts of the throat only be inflamed. The third is, when the inward and outward parts of the throat be both inflamed. The fourth is, when the muſcles of the neck are inflamed, or the inward joynts thereof ſo looſened,as they ſtraiten thereby both the throat, or weſand, or wind-pipe; for ſhort breath is incident to all the four kinds before recited, and they proceed all of one cauſe; that is to ſay, of ſome cholerick or bloudy fluxion, which comes out of the branches of the throat veins into thoſe parts, and there breedeth ſome hot inflamation. But now to prove that a Horſe is ſubject to this diſeaſe,you ſhall hear what *Abſyrtus*, *Hierocles*. *Vegetius*,and others do ſay, *Abſyrtus* writing to his friend a certain Farriar or Horſe-leach, called *Aſtoricus*, ſpeaketh in this manner, When a Horſe hath the Strangullion it quickly killeth him; the ſignes whereof be theſe; His temples will be hollow, his tongue will ſwell and hang out of his mouth. his eyes alſo will be ſwollen, and the paſſage of his throat ſtopt ſo as he can neither eat nor drink. All theſe ſignes be alſo confirmed by *Hierocles*.

Moreover, *Vegetius* rendereth the cauſe of this diſeaſe, affirming that it proceedeth of aboundance of ſubtle bloud, which after long travel will inflame the inward or outward muſcles of the throat or weſand, or ſuch affluence of bloud may come,by uſe of hot meats after great travel,being ſo alterative,as they cauſe thoſe parts to ſwell in ſuch ſort,as the Horſe can neither eat nor drink nor draw his breath. The cure,according to *Vegetius*,is in this ſort: Firſt bathe his mouth and tongue in hot water, and then anoint it with the gall of a Bull; that done,give him this drink, Take of old Oyl two pound, of old Wine a quart, nine Figs, and nine Leeks heads well ſtamped and brayed together. And after you have boiled theſe a while before you ſtrain them, put thereunto a little Nitrum Alexandrinum, and give him a quart of this every morning and evening. *Abſyrtus* and *Hierocles* would have you to let him bloud in the palate of his mouth, and alſo to powre Wine and Oyl into his Noſtrils, and alſo give him to drink this decoction of Figs and Nitrum ſodden together, or elſe to anoint his throat within with Nitre, Oil, and Hony, or elſe with Hony and Hogs dung mingled together,which differeth not much from *Galen* his medicine, to be given unto man. For he ſaith, that Hony mingled with the powder of Hogs dung that is white, and ſwallowed down, doth remedy the Squinancy preſently. *Abſyrtus* alſo praiſeth the ointment made of Bdellium, and when the inflamation beginneth ſomewhat to decreaſe, he ſaith it is good to purge the Horſe, by giving him wilde Cucumber and Nitre to drink. Let his meat be graſſe if it may be gotten, or elſe wet hay, and ſprinkled with Nitre. Let his drink alſo be lukewarm water, with ſome Barley meal in it.

Of the Cough.

OF Coughs, ſome be outward, and ſome be inward. Thoſe be outward which do come of outward cauſes, as by eating a feather, or by eating duſty or ſharp ſtraw, and ſuch like things: which tickling his throat, cauſeth him to cough: you ſhall perceive it by wagging and wrying his head in his coughing, and by ſtamping ſometime with his foot, labouring to get out the thing that grieveth him, and cannot. The cure, according to *Martin*, is thus: Take a Willow wand, rolled throughout with a fine linnen clout, and then anoint it all over with Hony, and thruſt it down his throat, drawing your hand to and fro, to the intent it may either drive down the thing that grieveth him, or elſe bring it up, and do this twice or thrice, anointing every time the ſtick with freſh Hony.

Of the inward and wet Cough.

OF inward Coughs, ſome be wet, and ſome be dry. The wet Cough is that cometh of cold,taken after ſome great heat given to the Horſe, diſſolving humors, which being afterward congealed, do cauſe obſtruction and ſtopping in the Lungs. And I call it the wet Cough, becauſe the Horſe in his coughing will void moiſt matter at his mouth after that it is once broken. The ſignes be theſe; The Horſe will be heavie, and his eyes will run with water, and he will forſake his meat; and when he cougheth, he thruſteth out his head, and reacheth with great pain at the firſt, as though he had a dry Cough, untill the fleam be broken, and then he will cough more hollow, which is a ſigne of amendment. And therefore, according to *Martins* experience, to the intent the fleam may break the ſooner, it ſhall be neceſſary to keep him warm, by clothing him with a double cloth, and by littering him up to the belly with freſh ſtraw, and then to give him this drink; Take of Barley one peck, and boyl it in two or three gallons of fair water, untill the Barley begin to burſt, and boyl therewith of bruiſed Licoras, of Aniſe ſeeds or Raiſins, of each one pound, then ſtrain it, and to that liquor put of Hony a pinte, and a quartern of Sugarcandy, and keep it cloſe in a pot to ſerve the Horſe therewith four ſeveral mornings, and caſt not away the ſodden Barley with the reſt of the ſtrainings, but make it hot every day to perfume the Horſe withal,being put in a bag and tied to his head, and if the Horſe will eat of it, it ſhall do him the more good. And this perfuming in Winter ſeaſon would be uſed about ten of the clock in the morning, when the Sun is of ſome height, to the intent the Horſe may be walked abroad, if the Sun ſhine, to exerciſe him moderately. And untill his Cough wear away, fail not to give him warm water, with a little ground Mault. And as his Cough breaketh more and more, ſo let his water every day be leſſe warmed then other.

Of the dry Cough.

THis ſeemeth to come of ſome groſſe and tough humor cleaving hard to the hollow places of the Lungs which ſtoppeth the winde-pipes, ſo as the Horſe cannot eaſily draw his breath, and if it continue, it will either grow to the Purſick, or elſe break his winde altogether. The ſigns be theſe; He will cough both often, drily, and alſo vehemently, without voiding at the noſe or mouth. The cure, according to *Martin*, is in this ſort; Take a cloſe earthen pot, and put therein three pintes of ſtrong Vinegar, and four Eggs, ſhels and all unbroken, and four Garlick heads clean pilled and bruiſed, and ſet the pot being very cloſe covered in ſome warm dunghil, and there let it ſtand a whole night; and the next morning with your hand take out the Egges, which will be ſo ſoft as ſilk, and lay them by untill you have ſtrained the Garlick and Vinegar through a fair cloth, then put to that liquor a quartern of Hony, and half a quartern of Sugarcandy, and two ounces of Licoras, and two ounces of Aniſe ſeeds, beaten all into fine powder And then the Horſe having faſted all the night before, in the morning betwixt ſeven and eight of the clock, open his mouth with a cord, and whorle therein one of the Egges, ſo as he may ſwallow it down, and then immediately powre in after a hornefull of the aforeſaid drink, being firſt made lukewarm, and caſt in another Egge with another hornful of drink, and ſo continue to do, untill he hath ſwallowed up all the Egges, and drunk up all the drink; and then bridle him, and cover him with warmer clothes then he had before, and bring him into the ſtable, and there let him ſtand on the bit, at the bare rack, well littered up to the belly, the ſpace of two hours. Then unbit him, and if it be in Winter, offer him a handfull of Wheaten ſtraw; if in Summer, give him graſſe, and let him eat no hay unleſs it be very well duſted and ſprinkled with water, and give him not much thereof. And therefore you ſhall need to give him the more provender, which alſo muſt be well cleanſed of all filth and duſt, and give him no water the ſpace of nine dayes. And if you perceive that the Cough doth not wear away, then if it be in Winter, purge him with theſe pils; Take of Lard two pound laid in water two hours, then take nothing but the clean fat thereof, and ſtamp it in a morter, and thereto put of Licoras, of Aniſe ſeeds, of Fenegreek, of each beaten into powder three ounces, of Aloes in powder two ounces, of Agarick one ounce: Knead theſe together like paſte, and make thereof ſix bals as big as an Egge. Then the Horſe having faſted over night, give him the next morning theſe pils one after another, anointed with Hony and Oyl mingled together in a platter; and to the intent he may ſwallow them down whether he will or not, when you have opened his mouth, catch hold of his tongue, and hold it faſt while you whirle in one of the pils; that done, thruſt it into his throat with a rolling-pin, and then let his tongue go untill he hath ſwallowed it down; then give him in like manner all the reſt of the pils, and let him ſtand on the bit warm clothed and littered, the ſpace of three hours at the leaſt, and after that give him a little wet hay, and warm water with a little ground mault in it to drink, and let him drink no other but warm water the ſpace of a week. And now and then in a fair ſunny day, it ſhall be good to trot him one hour abroad to breath him.

Blundevile.

Of the Fretized, broken and rotten Lungs.

THis proceedeth, as *Abſyrtus* and *Theomneſtus* ſaith, either of an extreme Cough, or of vehement running, or leaping, or of over greedy drinking after great thirſt; for the Lungs be incloſed in a very thin film or skin, and therefore eaſie to be broken, which if it be not cured in time, doth grow to Apoſtumation, and to corruption, oppreſſing all the Lungs, which of old Authors is called *Vomica*, and *Suppuratio*. But *Theomneſtus* ſaith, that broken Lungs, and rotten Lungs, be two divers diſeaſes, and have divers ſignes, and divers cures. The ſignes of broken Lungs be theſe; the Horſe draweth his wind ſhort, and by little at once, he will turn his head often toward the place grieved, and groaneth in his breathing, he is afraid to cough, and yet cougheth as though he had eaten ſmall bones. The ſame *Theomneſtus* healed a friends Horſe of his, whoſe Lungs were fretized, or rather broken as he ſaith, by continual eating of Salt, with this manner of cure here following; Let the Horſe have quiet and reſt, and then let him bloud in the hanches, where the veins appear moſt: and give him to drink the ſpace of ſeven dayes, Barley, or rather Oates ſodden in Goats milk; or if you can get no milk, boil it in water, and put therein ſome thick collops of Lard and of Deers ſewet, and let him drink that: and let his common drink in Winter ſeaſon be the decoction of Wheat meal; and in the Summer time, the decoction of Barley; and this as he ſaith will bind his lights again together. *Vegetius* utterly diſalloweth letting of bloud in any ſuch diſeaſe as this is, and all manner of ſharp medicines, for fear of provoking the Cough, by means whereof the broken places can never heal perfectly. And therefore neither his medicines nor meat would be harſh, but ſmooth, gentle and cooling. The beſt medicine that may be given him at all times is this; Take of Fenegreek, and of Linſeed, of each half a pound, of Gum dragant, of Maſtick, of Myrrhe, of Sugar, of Fitch flowre, of each one ounce. Let all theſe things be beaten into fine powder, and then infuſed one whole night in a ſufficient quantity of warm water, and the next day give him a quart of this lukewarm, putting thereunto two or three ounces of Oyl of Roſes, continuing ſo to do many dayes together, and if the diſeaſe be new, this will heal him; yea, and it will eaſe him very much, although the diſeaſe be old, which is thought uncurable. And in Winter ſeaſon ſo long as he ſtandeth in the ſtable, let him drink no cold water, and let his meat be clean without duſt, but in Summer ſeaſon it were beſt to let him run to graſſe; for ſo long as he eateth graſſe, a man ſhall ſcantly perceive this diſeaſe. Thus much of broken lungs.

Of putrified and rotten lungs.

THe ſignes to know whether a Horſes lungs be putrified or rotten, according to *Theomneſtus* are theſe; The Horſe will eat and drink greedilyer then he was wont to do; he ſhall be oftner vexed with a Cough, and in coughing he will caſt little lumps of matter out of his mouth. The cure whereof, according to *Theomneſtus*, is thus; Give him to drink every morning, the ſpace of ſeven dayes, the juyce of Purſlain mingled with Oil of Roſes, and add thereunto a little Tragagantum that hath been layed before in ſteep in Goats milk, or elſe in Barley or Oaten milk, ſtrained out of the Corn. When the Apoſtume is broken, then a very ſtrong viſe and evill ſavour will come out of his Noſtrils; for remedy whereof, it ſhall be good to give him the ſpace of ſeven dayes this drink here following; Take of the root called Coſtus two ounces, and of Caſia or elſe of Cinnamon three ounces into fine powder, and a few Raiſins, and give it him to drink with wine. But *Vegetius* would have him to be cured in this ſort, and with leſſe coſt I aſſure you; Take of Frankincenſe and Ariſtoloch, of each two ounces, beaten into fine powder, and give him that with wine; or elſe take of unburnt Brimſtone two ounces, and of Ariſtoloch one ounce and a half beaten into powder, and give him that with wine. And he would have you alſo to draw his breaſt with a hot iron, to the intent the humors may iſſue forth outwardly.

Of ſhortneſs of breath.

A Horſe may have ſhortneſs of breath, by haſty running after drinking, or upon a full ſtomach, or by the deſcending of humors unto his throat or lungs, after ſome extreme heat diſſolving the ſaid humors, which ſo long as there is nothing broken, may in the beginning be eaſily holpen. The ſignes be theſe; The Horſe will continually pant, and fetch his breath ſhort, which will come very hot out at his noſe, and in his breathing he will ſquiſe in the noſe, and his flanks will beat thick: yea and ſome cannot fetch their breath unleſſe they hold their necks right out and ſtraight, which diſeaſe is called of the old writers by the *Greek* name *Orthopnœa*. The cure; Let him bloud in the neck, and give him this drink; Take of Wine and Oil, of each a pinte, of Frankincenſe half an ounce, and of the juice of Horehound half a pinte. It is good alſo to powre into his throat Hony, Butter and Hogs greaſe moulten together, and made lukewarm. *Tiberius* ſaith, it is good to give him whole Egges, ſhels and all, ſteeped and made ſoft in Vinegar; that is to ſay, the firſt day three, the ſecond day five, and the third day ſeven, and to powre Wine and oil into his noſtrils. I for my part would take nothing but Annis ſeeds, Licoras and Sugarcandy, beaten all into fine powder, give him that to drink, with Wine and Oil mingled together.

Of the Purſick.

THis is a ſhortneſs of breath, and the Horſe that is ſo diſeaſed is called of the *Italians*, *Cavallo pulſivo*, or *Bolſo*, which I think is derived of the *Latin* word *Vulſus*, by changing *V.* into *B.* and I think differeth not much from him that hath broken lungs, called of *Vegetius* and other old writers *Vulſus*, for ſuch ſhortneſs of breath comes either of the ſame cauſes, or elſe much like; as aboundance of groſſe humors, cleaving hard to the hollow places of the Lungs, and ſtopping the windepipes. And the winde being kept in, doth reſort downward, as *Ruſſius* ſaith, into the Horſes guts, and ſo cauſeth his flanks to beat continually without order; that is to ſay, more ſwiftly and higher up to the back, then the flanks of any Horſe that is ſound of winde. And if the diſeaſe be old, it is ſeldom or never cured; and though I finde many medicines, preſcribed by divers Authors, few or none do content me, unleſs it be that of *Vegetius*, recited before in the Chapter of broken Lungs. And if that prevaileth not, then I think it were not amiſſe according to *Ruſſius* to purge him with this drink here following; Take of Maiden hair, of Ireos, of Aſh, of Licoras, of Fenigreek, of Raiſins, of each half an ounce, of Cardanum, of Pepper, of Bitter Almonds, of Baurach, of each two ounces, of Nettle ſeed, and of Ariſtoloch, of each three ounces, boil them all together in a ſufficient quantity of water, and in that decoction diſſolve half an ounce of Agarick, and two ounces of Coloquintida, together with two pound of Hony, and give him of this a pinte or a quart at divers times: and if it be too thick, make it thinner, by putting thereunto water wherein Licoras hath been ſodden: and if need be, you may alſo draw both his flanks croſſe-wiſe with a hot iron, to reſtrain the beating of them, and alſo ſlit his Noſtrils, to give him more air. And if it be in Summer, turn him to graſſe; if in Winter, let him be kept warm, and give him now and then a little ſodden wheat. *Ruſſius* would have it to be given him three dayes together, and alſo new ſweet wine to drink, or elſe other good wine mingled with Licoras water.

Blundevile.

Of a Conſumption.

A Conſumption is no other thing but an exulceration of the lungs, proceeding of ſome fretting or gnawing humor, deſcending out of the head into the lungs And I take it to be that diſeaſe which the old Writers are wont to call the dry Malady; which perhaps ſome would rather interpret to be the mourning of the chine, with whom I intend not to ſtrive. But thus much I muſt needs ſay, that every Horſe having the mourning of the Chine, doth continually caſt at the noſe, but in the dry Malady it is contrary. For all the Authors that write thereof affirm, that the Horſe avoideth nothing at the noſe. And the ſignes to know the dry Malady, according to their doctrine, be theſe: His fleſh doth clean conſume away, his belly is gaunt, and the skin thereof ſo hard ſtretched, or rather ſhrunk up, as if you ſtrike on him with your hand it will ſound like a Taber, and he will be hollow backt, and forſake his meat, and though he eateth it, (as *Abſyrtus* ſaith) yet he doth not digeſt it, nor proſpereth not withal, he would cough and cannot but hickingly, as though he had eaten ſmall bones. And this diſeaſe is judged of all the Authors to be incurable. Notwithſtanding they ſay, that it is good to purge his head with ſuch perfumes as have been ſhewed you before in the Chapter of the Glanders, and alſo to give him always Coleworts, chopt ſmall with his provender. Some would have him to drink the warm bloud of ſucking Pigs new ſlain; and ſome the juyce of Leeks, with Oyl and Wine mingled together. Others praiſe Wine and Frankincenſe; ſome, Oyl and Rue; ſome would have his body to be purged and ſet to graſs.

Of the Conſumption of the Fleſh, and how to make a lean Horſe fat.

M*Artin* ſaith, that if a Horſe take a great cold after a heat, it will cauſe his fleſh to waſt, and his skin to wax hard and dry, and to cleave faſt to his ſides, and he ſhall have no appetite unto his meat, and the fillets of his back will fall away, and all the fleſh of his buttocks, and of his ſhoulders will be conſumed. The cure whereof is thus: Take two Sheeps heads unflead, boyl them in three gallons of Ale, or fair running water, until the fleſh be conſumed from the bones, that done, ſtrain it through a fine cloth, and then put thereunto of Sugar one pound, of Cinamon two ounces, of Conſerve of Roſes, of Barberries, of Cherries, of each two ounces; and mingle them together, and give the Horſe every day in the morning a quart thereof luke-warm, untill all be ſpent: and after every time he drinketh, let him be walked up and down in the ſtable, or elſe abroad if the weather be warm, and not windy, and let him neither eat nor drink in two hours after, and let him drink no cold water, but luke-warm, the ſpace of fifteen days, and let him be fed by little and little, with ſuch meat as the Horſe hath moſt appetite unto. But if the Horſe be neſh and tender, and ſo wax lean without any apparent grief or diſeaſe, then the old Writers would have him to be fed now and then with parched Wheat, and alſo to drink Wine with his water, and eat continually Wheat-bran mingled with his provender, untill he wax ſtrong; and he muſt be often dreſſed and trimmed, and ly ſoft, without the which things his meat will do him but little good. And his meat muſt be fine and clean, and given often and by little at once. *Ruſſius* ſaith, that if a Horſe eating his meat with good appetite, doth not for all that proſper, but is ſtill lean: then it is good to give him Sage, Savin, Bay-berries, Earth-nuts, and Boares-greaſe, to drink with Wine: or to give him the intrails of a Barbel or Tench, with white Wine. He ſaith alſo that ſodden Beans mingled with Bran and Salt, will make a lean Horſe fat in very ſhort ſpace.

Of grief in the Breaſt.

Blundevile. L*Aurentius Ruſſius* writeth of a diſeaſe called in *Italian*, *Gravezza di petto*, which hath not been in experience amongſt our Farriers, that I can learn. It comes, as *Ruſſius* ſaith, of the ſuperfluity of bloud, or other humors diſſolved by ſome extream heat, and reſorting down the breaſt, paining the Horſe, ſo as he cannot well go. The cure whereof according to *Ruſſius* is thus: Let him bloud on both ſides of the breaſt in the accuſtomed veins, and rowel him under the breaſt, and twice a day turn the rowels with your hand, to move the humors that they may iſſue forth, and let him go ſo roweled the ſpace of fifteen days.

Of the pain in the Heart called Anticor, that is to ſay, contrary to the Heart.

THis proceedeth of abundance of ranck bloud bred with good feeding and over much reſt: which bloud reſorting to the inward parts doth ſuffocate the heart, and many times cauſeth ſwellings to appear before the breſt, which will grow upward to the neck, and then it killeth the Horſe. The ſignes: The Horſe will hang down his head in the manger, forſaking his meat, and is not able to lift up his head. The cure according to *Martin* is thus: Let him bloud on both ſides abundantly in the plat veins, and then give him this drink: Take a quart of Malmſie, and put thereunto half a quartern of Sugar, and two ounces of Cinamon, and give it him luke-warm, then keep him warm in the ſtable, ſtuffing him well about the ſtomach, that the wind offend him no manner of way; and give him warm water with mault always to drink, and give him ſuch meat as he will eat. And if the ſwelling do appear, then beſides letting him bloud, ſtrike the ſwelling in divers places with your fleam, that the corruption may go forth: and anoint the place with warm Hogs greaſe, and that will either make it to wear away, or elſe to grow to a head, if it be covered and kept warm.

Of tired Horſes.

BEcauſe we are in hand here with the vital parts, and that when the Horſes be tired with over-much labour, their vital ſpirits wax feeble, I think it beſt to ſpeak of them even here, not with long diſcourſing, as *Vegetius* uſeth; but briefly to ſhew you how to refreſh the poor Horſe, having need thereof, which is done chiefly by giving him reſt, warmth and good feeding, as with warm maſhes and plenty of provender. And to quicken his ſpirits, it ſhall be geod to pour a little Oyl and Vinegar into his noſtrils, and to give him the drink of Sheeps heads recited before in the Chapter of Conſumption of the fleſh; yea, and alſo to bath his legs with this bath: Take of Mallows, of Sage, of each two or three handfuls, and of a Roſe-cake; boil theſe things together, and being boyled, then put unto it a good quantity of Butter, or of Sallet-oyl. Or elſe make him this charge: Take of Bole Armony, and of Wheat-flowre, of each half a pound, and a little Rozen beaten into powder, and a quart of ſtrong Vinegar, and mingle them together, and cover all his legs therewith; and if it be Summer turn him to graſs.

Of the diſeaſed parts under the Midriff, and firſt of the Stomach.

THe old Authors make mention of many diſeaſes incident to a Horſes ſtomach, as loathing of meat, ſpewing up his drink, ſurfeting of provender, the hungry evil, and ſuch like, which few of our Farriers have obſerved: and therefore I will briefly ſpeak of as many as I think neceſſary to be known; and firſt of the loathing of meat. *Blundevile.*

Of the loathing of Meat.

A Horſe may loath his meat through the intemperature of his ſtomach, as for that it is too hot or too cold. If his ſtomach be too hot, then moſt commonly it will either inflame his mouth and make it to break out in bliſters, yea and perhaps cauſe ſome Cancker to breed there. The cure of all which things hath been taught before. But if he forſake his meat only for very heat, which you ſhall perceive by the hotneſs of his breath and mouth, then cool his ſtomach by giving him cold water, mingled with a little Vinegar and Oyl to drink, or elſe give him this drink: Take of Milk, and of Wine, of each one pinte, and put thereunto three ounces of *Mel Roſatum*, and waſh all his mouth with Vinegar and Salt. If his ſtomach be too cold, then his hair will ſtare and ſtand right up, which *Abſyrtus* and others were wont to cure, by giving the Horſe good Wine and Oyl to drink, and ſome would ſeethe in Wine Rew, or Sage; ſome would adde thereunto white Pepper and Myrrhe; ſome would give him Onyons and Rocket-ſeed to drink with Wine: Again, there be other ſome which preſcribe the bloud of a young Sow with old Wine. *Abſyrtus* would have the Horſe to eat the green blades of Wheat, if the time of the year will ſerve for it. *Columella* ſaith, that if a Horſe, or any other Beaſt, do loath his meat, it is good to give him Wine, and the ſeed of Gith; or elſe Wine and ſtampt Garlick.

Of caſting out his Drink.

VEgetius ſaith, that the Horſe may have ſuch a Palſie proceeding of cold in his ſtomach, as he is not able to keep his drink, but many times to caſt it out again at his mouth. The remedy whereof is to let him bloud in the neck, and to give him Cordial drinks, that is to ſay, made of hot and comfortable Spices; and alſo to anoint all his breaſt, and under his ſhoulders with hot Oyls, and to purge his head, by blowing up into his noſtrils, powders that provoke neezing, ſuch as have been taught you before.

Of Surfeting with glut of Provender.

THe glut of provender or other meat not digeſted, doth cauſe a Horſe to have great pain in his body, ſo as he is not able to ſtand on his feet, but lyeth down, and waltereth as though he had the Bots. The cure whereof according to *Martins* experience, is in this ſort: Let him bloud in the neck, then trot him up and down for the ſpace of an hour; and if he cannot ſtale, draw out his yard, and waſh it with a little white Wine luke-warm, and thruſt into his yard either a bruiſed clove of Garlick, or elſe a little oyl of Camomile, with a wax Candle. If he cannot dung, then rake his fundament, and give him this Glyſter: Take of Mallows two or three handfuls, and boil them in a pottle of fair running water; and when the Mallows be ſodden, then ſtrain it, and put thereunto a quart of freſh Butter, and half a pinte of Oyl Olive; and having received this Glyſter, lead him up and down, untill he hath emptyed his belly, then ſet him up, and keep him hungry the ſpace of three or four days, and the Hay that he eateth, let it be ſprinkled with water, and let him drink water, wherein ſhould be put a little Bran, and when he hath drunk, give him the Bran to eat, and give him little or no provender at all, for the ſpace of eight or ten days.

Of another kinde of Surfeting with meat or drink, called of us, Foundering in the body.

Blundevile.

THis diſeaſe is called of the old Writers in *Greek*, *Crithiaſis*; in *Latine*, *Hordeatio*; it cometh as they ſay, by eating of much provender ſuddenly after labour, whileſt the Horſe is hot and panting, whereby his meat not being digeſted, breedeth evill humors, which by little and little do ſpread throughout his members, and at length do oppreſs all his body, and do clean take away his ſtrength, and make him in ſuch a caſe, as he can neither go, nor bow his joynts, nor being laid, he is not able to riſe again; neither can he ſtale, but with great pain. It may come alſo, as they ſay, of drinking too much in travelling by the way when the Horſe is hot, but then it is not ſo dangerous, as when it cometh of eating too much.

But howſoever it cometh, they ſay all, that the humors will immediately reſort down into the Horſes legs, and feet, and make him to caſt his hoofs: and therefore I muſt needs judge it to be no other thing but a plain foundering; which word foundering is borrowed, as I take it, of the *French* word *Fundu*, that is to ſay, molten. For foundering is a melting or diſſolution of humors, which the *Italians* call *Infuſione*. *Martin* maketh divers kindes of foundering, as the foundering of the body, which the *French* men call moſt commonly *Morfundu*; and foundering in the legs and feet; alſo foundering before and behinde, which ſome Authors do deny, as *Magiſter Maurus*, and *Laurentius Ruſſius*, affirming that there are fewer humors behinde then before, and that they cannot eaſily be diſſolved or molten, being ſo far diſtant from the heart, and the other vital parts. Whereunto a man might anſwer, that the natural heat of the heart doth not cauſe diſſolution of humors, but ſome unnatural and accidental heat, ſpred throughout all the members, which is dayly proved by good experience. For we ſee Horſes foundered not only before or behinde, but alſo of all four legs at once, which moſt commonly chanceth either by taking cold ſuddenly after a great heat; as by ſtanding ſtill upon ſome cold pavement, or abroad in the cold winde; or elſe perhaps the Horſe travelling by the way, and being in a ſweat, was ſuffered to ſtand in ſome cold water whileſt he did drink, which was worſe then his drinking: for in the mean time the cold entering at his feet, aſcended upward, and congealed the humors which the heat before had diſſolved, and thereby when he cometh once to reſt, he waxeth ſtiffe and lame of his legs. But leaving to ſpeak of foundering in the legs, as well before as behinde, untill we come to the griefs in the legs and feet; we intend to talk here only of foundering in the body, according to *Martins* experience. The ſignes to know if a Horſe be foundered in the body, be theſe: His hair will ſtare, and he will be chill, and ſhrug for cold, and forſake his meat, hanging down his head, and quiver after cold water; and after two or three days he will begin to cough. The cure, according to *Martin* is thus: Firſt, ſcour his belly with the Glyſter laſt mentioned, and then give him a comfortable drink made in this ſort: Take of Malmſie a quart, of Sugar half a quartern, of Honey half a quartern, of Cinnamon half an ounce, of Licoras and Aniſe ſeeds, of each two ſpoonfuls, beaten into fine powder, which being put into the Malmſie, warm them together at the fire, ſo as the Honey may be molten, and then give it him luke-warm: that done, walk him up and down in the warm ſtable the ſpace of half an hour, and then let him ſtand on the bit two or three hours without meat; but let him be warm covered, and well littered; and give him Hay ſprinkled with a little water, and clean ſifted provender by a little at once; and let his water be warmed with a little ground Malt therein. And if you ſee him ſomewhat cheered, then let him bloud in the neck, and alſo perfume him once a day with a little Frankincenſe; and uſe to walk him abroad, when the weather is fair and not windy, or elſe in the houſe, if the weather be foul: and by thus uſing him you ſhall quickly recover him.

Of the Hungry Evill.

THis is a very great deſire to eat, following ſome great emptineſs, or lack of meat, and it is called of the old Authors by the *Greek* name *Bulimos*, which is as much to ſay, as a great hunger proceeding, as the Phyſitians ſay, at the firſt of ſome extream outward cold, taken by long travelling in cold barren places, and eſpecially where Snow aboundeth, which outward cold cauſeth the ſtomach to be cold, and the inward powers to be feeble. The cure according to *Abſyrtus* and *Hierocles*, is in the beginning to comfort the Horſes ſtomach, by giving him Bread ſopt in Wine. And if you be in a place of reſt, to give him Wheat-flowre and Wine to drink; or to make him Cakes or Bals of Flowre and Wine kneaded together, and to feed him with that; or with Wine and Nuts of Pine trees. *Hierocles* ſaith, if any ſuch thing chance by the way whereas no flowre is to be had, then it ſhall be beſt to give him Wine and earth wrought together, either to drink, or elſe to eat in Bals.

Of the Diſeaſe in the Liver.

All the old Authors ſpeak much of the pain in the liver, but none of them do declare whereof it cometh, or by what means, ſaving that *Hippocrates* ſaith, that ſome Horſes get it by violent running upon ſome ſtony or hard ground. I for my part think that the liver of a Horſe is ſubject to as many diſeaſes as the liver of a man, and therefore may be pained diverſly. As ſometime by the intemperateneſs of the ſame, as for that it is perhaps too hot, or too cold, too moiſt, or too dry: ſometimes by means of evill humors, as choler, or flegm abounding in the ſame, according as the liver is either hot or cold: for heat breedeth choler, and cold, flegm, by means of which intemperature proceedeth all the weakneſs of the liver. It may be pained alſo ſometime by obſtruction and ſtopping, and ſometime by hard knobs, inflamation, Apoſtume, or Ulcer bred therein, ſometime by Conſumption of the ſubſtance thereof. The ſignes of heat and hot humors, be theſe; loathing of meat, great thirſt, and looſeneſs of belly, voiding dung of ſtrong ſent, and leanneſs of body. The ſignes of cold, and cold humors be theſe: appetite to meat without thirſt, a belly neither continually looſe nor ſtiptike, but between times, no ſtrong ſent of dung, nor leanneſs of body, by which kinde of ſignes, both firſt and laſt mentioned, and ſuch like, the weakneſs and grief of the liver is alſo to be learned and ſought out. Obſtruction or ſtopping moſt commonly chanceth by travelling or labouring upon a full ſtomach, whereby the meat not being perfectly digeſted, breedeth groſs and tough humors, which humors by vehemency of the labour, are alſo driven violently into the ſmall veins, whereby the liver ſhould receive good nutriment, and ſo breedeth obſtruction and ſtopping. The ſignes whereof in mans body is heavineſs and diſtenſion, or ſwelling, with ſome grief in the right ſide under the ſhort ribs, and eſpecially when he laboureth immediately after meat, which things I believe if it were diligently obſerved, were eaſie enough to finde in a Horſe, by his heavy going at his ſetting forth, and often turning his head to the ſide grieved. Of an old obſtruction, and eſpecially if the humors be cholerick, breedeth many times a hard knob on the liver, called of the Phyſitians *Schirrus*, which in mans body may be felt, if the body be not over fat: and it is more eaſie for him to ly on the right ſide than on the left, becauſe that lying on the left ſide, the weight of the knob would oppreſs the ſtomach and vital parts very ſore, by which ſignes methinks a diligent Farrier may learn, whether a Horſe hath any ſuch diſeaſe or not. The inflamation of the liver cometh by means that the bloud either through the abundance, thinneſs, boyling heat, or ſharpneſs thereof; or elſe through the violence of ſome outward cauſe, breaketh out of the veins, and floweth into the body of the liver, and there being out of his proper veſſels doth immediately putrifie and is inflamed, and therewith corrupteth ſo much fleſhy ſubſtance of the liver as is imbrewed withall; aud therefore for the moſt part, the hollow ſide of the liver is conſumed: yea, and ſometime the *full ſide*.

This hot bloudy matter then is properly called an Inflamation, which by natural heat is afterward turned into a plain corruption, and then it is called an Impoſtume, which if it break out and run, then it is called an Ulcer, or filthy ſore: Thus you ſee, of one evill Fountain may ſpring divers griefs, requiring divers cures. And though none of mine Authors, nor any other Farrier that I know have waded thus far, yet I thought good by writing thus much, to give ſuch Farriers as be wiſe, diſcreet and diligent, occaſion to ſeek for more knowledge and underſtanding then is taught them; and me thinks that it is a great ſhame, that the Farriers of this age ſhould not know much more than the Farriers of old time, ſith that beſides that the old mens knowledge is not hidden from them, they have alſo their own experience; and time alſo bringeth every day new things to light. But now to proceed in diſcourſing of the liver according to the Phyſitians doctrine as I have begun; I ſay then of an inflamation in the hollow ſide of the liver, the ſignes be theſe: loathing of meat, great thirſt, looſeneſs of belly, eaſie lying on the right ſide, and painful lying on the left. But if the inflamation be on the full ſide or ſwelling ſide of the liver, then the patient is troubled with difficulty of breathing, with a dry cough and grievous pain, pulling and twitching the winde-pipe, and to ly upon the right ſide is more painful than the left, and the ſwelling may be felt with a mans hand. But you muſt underſtand by the way, that all theſe things laſt mentioned be the ſignes of ſome great inflamation, for ſmall inflamations have no ſuch ſignes, but are to be judged only by grief under the ſhort ribs and fetching of the breath.

Blundevile.

The ſignes of Apoſtumation is painful and great heat. The ſignes of Ulcerations is decreaſe of the heat with feebleneſs and fainting. For the filthy matter flowing abroad with evill vapours corrupteth the heart, and many times cauſeth death. The ſignes of the Conſumption of the liver, ſhall be declared in the next Chapter; and as for the curing of all other diſeaſes before mentioned, experience muſt firſt teach it ere I can write it. Notwithſtanding, I cannot think but that ſuch things as are good to heal the like diſeaſes in Mans body, are alſo good for a Horſe; for his liver is like in ſubſtance and ſhape to a mans liver, differing in nothing but only in greatneſs. And therefore I would wiſh you to learn at the Phyſitians hands, who I am ſure firſt, as touching the weakneſs of the liver, proceeding of the untemperateneſs thereof, will bid you to heal every ſuch untemperateneſs by his contrary; that is to ſay, heat by cold, and drineſs by moiſture: and ſo contrary; And therefore it ſhall be very neceſſary for you to learn the qualities, natures, and vertues of hearbs, drugs, and all other ſimples, and how to apply them in time. And for to heal the obſtruction of the liver, they will counſel you perhaps to make the Horſe drinks of ſuch ſimples as theſe be, Agrimony, Fumitory, Camomile, Wormwood, Licoras, Aniſe ſeeds, Smallage, Parſly, Spikenard, Gentian, Succory, Endive, Sperage, Lupines, the vertues whereof you ſhall learn in the Herbals: but amongſt all ſimples, there is none more praiſed than the liver of a Woolf beaten into powder, and mingled in any medicine that is made for any diſeaſe in the liver.

The cure of an inflamation conſiſteth in letting bloud, and in bathing, or fomenting the ſore place with ſuch herbs and Oyls, as may mollifie and diſperſe humors abroad, wherewith ſome ſimples that be aſtringent would be always mingled: yea, and in all other medicines that be applyed to the liver, for any manner of diſeaſes. Simples that mollifie and diſperſe be theſe: Linſeed, Fenigreek, Camomile, Aniſe ſeeds, Melliot; and ſuch like things. Simples aſtringent be theſe: Red Roſe leaves, Bramble leaves, Wormwood, Plantain, Myrrhe, Maſtick, Stirax, and ſuch like. Apoſtumes are to be ripened and voided. Ulcers muſt be cleanſed, and ſcowred downward, either by the belly, or by urine: and therefore the uſe of ſuch ſimples as provoke urine in ſuch caſe is neceſſary. The old Writers of Horſe-leech-craft do ſay, that when a Horſe is grieved in his liver, he will forſake his meat, and his body will waſte, his mouth will be dry, his tongue rough and harſh: yea, and it will ſmell, and he will refuſe to ly on that ſide where his grief is. The cure whereof according to *Abſyrtus* is in this ſort: Let him drink ſtampt Ireos with Wine allayed with water. He praiſeth alſo an herb much like unto Calamint; called of *Pliny*, *Polymoria*; or let him drink Savory with Wine and Oyl. I think that Agrimony or Liver-wort is as good as the beſt of them. *Abſyrtus* would have his body to be chafed with Wine and Oyl mixt together; and to be well littered that he may ly ſoft: and his provender that ſhould be given him to be ſteeped firſt in warm water: and now and then ſome *Nitrum* to be put into his drink.

Of the Conſumption in the Liver.

I Believe that no inward member of a Horſe doth ſuffer ſo much as the lungs and liver, and that not ſo much by continual, as by unordinate, and untimely travail, labour, and exerciſe, whereby either the Horſes lungs, or his liver do moſt commonly periſh, and is conſumed: yea, and ſometime both. Of the Conſumption of the lungs, we have talked ſufficiently before: therefore let us ſhew you here the cauſes whereof the Conſumption of the liver proceedeth. The Phyſitians ſay, that it may come of any humor, but chiefly and moſt commonly of cholerick matter, ſhed throughout the ſubſtance of the liver, which putrifying by little and little, and leiſurely, doth at length corrupt and periſh all the ſubſtance of the liver, which thing in mans body doth firſt proceed, as the Phyſitians ſay, either by eating corrupt meats, or elſe by continual drinking of ſweet Wines.

But me thinks that the Conſumption of a Horſes liver, ſhould come by ſome extreme heat, inflaming the bloud, which afterward being putrified, doth corrupt and exulcerate the ſubſtance of the liver. For after inflamation, as I ſaid before, cometh Apoſtumation, and Exulceration, which is very hard to cure, becauſe the ſubſtance of the liver is ſpongeous like unto the lungs. And whileſt the liver is ſo corrupted, there can be no good digeſtion, for lack whereof the body receiveth no good nutriment, and therefore muſt needs alſo languiſh and conſume. The ſignes according to *Martin* be theſe:

The Horſe will forſake his meat, and will ſtand ſtretching himſelf in length, and never covet to ly down; and his breath will be ſo ſtrong, as no man can abide it, and he will continually caſt yellowiſh matter at the one noſtril, or elſe at both, according as one or both ſides of the liver is corrupted; and on that ſide that he caſteth moſt, he will have under his jaw, even about the midſt thereof, a knob or kernel as much as a Walnut, which when *Martin* findeth, he committeth his carkaſe to the Crows, taking him to be paſt cure. But if he were let bloud in time, and had ſuch drinks given him, as are good to comfort and ſtrengthen the liver, he thinketh that the Horſe might be recovered. I never read any medicine for the waſting of the liver, as I remember, but this only diet, which I found in an old *Engliſh* Book: Let him drink for the ſpace of three days no other thing but warm wort; and let him eat no other meat but Oats baked in an Oven, and let him ſtand meatleſs the firſt night before you give him the wort: But I think it were not amiſs to put into the wort that he drinketh every morning ſome good confection or powder made of Agrimony, red Roſe leaves, *Saccharum*, *Roſaceum*, *Diarchadon*, *Abbatis*, *Diaſantalon*, Licoras, and of the liver of a Wolf, and ſuch other ſimples as do comfort and ſtrengthen the liver; or elſe to give him the ſame things with Goats milk luke-warm.

Of the diſeaſes in the Gall.

IN my opinion the gall of a Horſe is ſubject to divers diſeaſes, as well as the gall of a Man, as to obſtruction, whereof cometh the fulneſs and emptineſs of the bladder, and likewiſe the ſtone in the gall. But obſtruction may chance two manner of ways: Firſt, when the way, whereby the choler ſhould proceed from the liver unto the bladder of the gall as unto his receptacle, is ſtopped, and thereby the bladder remaineth empty, whereof may ſpring divers evill accidents: as vomiting, the Lax or Bloudy flix. Secondly, when the way whereby ſuch choler ſhould iſſue forth of the bladder of the gall down into the guts is ſhut up, whereby the bladder is over full and aboundeth with two much choler, which cauſeth heavineſs, ſuffocation, belching, heat, thirſt, and diſpoſition to angryneſs. The ſignes of both kindes of obſtruction in the gall is coſtiveneſs and yellowiſhneſs of ſkin infected with the yellow Jaundiſe. The ſtone in the gall, which is ſomewhat blackiſh, proceedeth of the obſtruction of the conduits of the bladder, whereby the choler being long kept in, waxeth dry, and turneth at length to hard gravel or ſtones, whereof becauſe there is neither ſignes nor any grievous accident known to the Phyſitians, I leave to talk any farther thereof, and the rather for that none of mine Authors do make any mention of the gall at all. Notwithſtanding to give ſome light to the learned Farriers, and that they may the better underſtand the inward parts of a Horſe; I thought good to write thus much, thinking it no time loſt while I may profit them any way.

Of the diſeaſes in the Spleen.

THe Spleen, as I have ſaid before in many places, is the receptacle of melancholy, and of the dregs of bloud, and is ſubject to the like diſeaſes that the Liver is, that is to ſay; to ſwelling, obſtruction, hard knobs, and inflamation, for the ſubſtance of the Spleen is ſpongeous, and therefore apt to ſuck in all filth, and to dilate it ſelf; wherefore being full it muſt needs ſwell, which will appear in the left ſide under the ſhort ribs; and ſuch ſwelling cauſeth alſo ſhortneſs of breath, and eſpecially when the body doth labour or travel. It is painful alſo to ly on the right ſide, becauſe the Spleen being ſwoln ſo oppreſſeth the midriffe, and eſpecially when the ſtomach is full of meat, and the patient hath worſe digeſtion then appetite, and is troubled with much winde, both upward and downward. Moreover the vapour of the humor doth offend the heart, making it faint, and cauſeth all the body to be heavy and dull; and if ſuch ſwelling be ſuffered to go uncured, then if it be a melancholy humor, and abounding over-much, it waxeth every day thicker and thicker, cauſing obſtruction not only in the veins & arteries, which is to be perceived by heavineſs and grief on the left ſide, but alſo in the Spleen it ſelf; whereas by vertue of the heat it is hardned every day more and more, and ſo by little and little waxeth to a hard knob, which doth not only occupy all the ſubſtance of the Spleen, but alſo many times all the left ſide of the womb, and thereby maketh the evill accidents or griefs before recited much more than they were.

Now as touching the inflamation of the Spleen which chanceth very ſeldom; for ſo much as every inflamation proceedeth of pure bloud, which ſeldom entereth into the Spleen: I ſhall not need to make many words, but refer you over to the Chapter of the Liver, for in ſuch caſe they differ not, but proceeding of like cauſe, have alſo like ſignes, and do require like cure. The old Writers ſay, that Horſes be often grieved with grief in the Spleen, and ſpecially in Summer ſeaſon with greedy eating of ſweet green meats, and they call thoſe Horſes *Lienoſos*; that is to ſay, Spleenetick. The ſignes whereof (ſay they) are theſe, hard ſwelling on the left ſide, ſhort breath, often groning, and greedy appetite to meat. The remedy whereof according to *Abſyrtus* is to make a Horſe to ſweat once a day during a certain time, by riding him, or otherwiſe travelling him, and to pour into his left noſtril every day the juyce of Mirabolans mingled with Wine and Water, amounting in all to the quantity of a pinte. But me thinks it would do him more good, if he drank it as *Hierocles* would have him to do. ***Eumelius*** praiſeth this drink: Take of Cummin ſeed and of Honey, of each ſix ounces, and of *Laſerpitium* as much as a Bean, of Vinegar a pinte; and put all theſe into three quarts of water, and let it ſtand ſo all night, and the next morning give the Horſe thereof to drink, being kept over night faſting. *Theomneſtus* praiſeth the decoction of Capers, eſpecially if the bark of the root thereof may be gotten ſodden in water to a ſyrup. Or elſe make him a drink of Garlick, *Nitrum*, Hore-hound, and Wormwood, ſodden in harſh Wine: and he would have the left ſide to be bathed in warm water, and to be hard rubbed. And if all this will not help, then to give him the fire, which *Abſyrtus* doth not allow, ſaying the Spleen lyeth ſo, as it cannot eaſily be fired, to do him any good. But for ſo much as the Liver and Spleen are members much occupied in the ingendring and ſeparating of humors, many evill accidents and griefs do take their firſt beginning of them, as the Jaundiſe, called in a Horſe, the yellows, drineſs of body, and Conſumpcion of the fleſh, without any apparent cauſe why, which the Phyſitians call *Atrophia*; alſo evill habit of the body, called of them *Cachexia*, and the Dropſie. But firſt we will ſpeak of the Jaundiſe or Yellows.

Of the Yellows.

THe Phyſitians in a mans body do make two kindes of Jaundiſe: that is to ſay, the Yellow, proceeding of choler diſperſed throughout the whole body, and dying the ſkin yellow; and the Black, proceeding of melancholy, diſperſed likewiſe throughout the whole body, and making all the ſkin black. And as the yellow Jaundiſe cometh for the moſt part, either by obſtruction or ſtopping of the conduits belonging to the bladder of the gall, which (as I ſaid before) is the receptacle of choler; or by ſome inflamation of the Liver, whereby the bloud is converted into choler, and ſo ſpreadeth throughout the body: even ſo the black Jaundiſe cometh by mean of ſome obſtruction in the Liver-vein, that goeth to the Spleen, not ſuffering the Spleen to do his office, in receiving the dregs of the bloud from the Liver, wherein they abound too much; or elſe for that the Spleen is already too full of dregs, and ſo ſheddeth them back again into the veins. But as for the black Jaundiſe, they have not been obſerved to be in Horſes as in Men, by any of our Farriers in theſe days that I can learn. And yet the old Writers of Horſe-leech-craft, do ſeem to make two kindes of Jaundiſe called of them *Cholera*, that is to ſay, the dry choler, and alſo the moiſt choler. The ſignes of the dry choler, as *Abſyrtus* ſaith, is great heat in the body, and coſtiveneſs of the belly, whereof it is ſaid to be dry. Moreover, the Horſe will not covet to ly down, becauſe he is ſo pained in his body, and his mouth will be hot and dry.

It cometh, as he ſaith, by obſtruction of the conduit, whereby the choler ſhould reſort into the bladder of the gall, and by obſtruction alſo of the urine veſſels, ſo as he cannot ſtale. The cure according to his experience, is to give him a Glyſter made of Oyl, Water and *Nitrum*, and to give him no provender, before that you have raked his fundament, and to pour the decoction of Mallows mingled with ſweet Wine into his noſtrils, and let his meat be graſs, or elſe ſweet Hay ſprinkled with Nitre and Water; and he muſt reſt from labour, and be often rubbed. *Hierocles* would have him to drink the decoction of wilde Coleworts ſodden in Wine. Again of the moiſt choler of Jaundiſe, theſe are the ſignes: The Horſes eyes will look yellow, and his noſtrils will open wide; his ears and his flancks will ſweat, and his ſtale will be yellow and cholerick; and he will grone when he lyeth down; which diſeaſe the ſaid *Abſyrtus* was wont to heal, as he ſaith, by giving the Horſe a drink made of Thyme and Cumin, of each like quantity ſtampt together, and mingled with Wine, Honey, and Water, and alſo by letting him bloud in the paſterns. This laſt diſeaſe ſeemeth to differ nothing at all from that which our Farriers call the Yellows. The ſignes whereof, according to *Martin*, be theſe: The Horſe will be faint, and ſweat as he ſtandeth in the ſtable, and forſake his meat: and his eyes, and the inſide of his lips and all his mouth within will be yellow. The cure whereof according to him is in this ſort: Let him bloud in the neck-vein, a good quantity, and then give him this drink: Take of white Wine, of Ale a quart, and put thereunto of Saffron, Turmerick, of each half an ounce, and the juyce that is wrung out of a handful of Celandine, and being luke-warm, give it the Horſe to drink, and keep him warm the ſpace of three or four days, giving him warm water with a little Bran in it.

Of the Yellows.

Markham. THe Yellows is a general diſeaſe in Horſes, and differ nothing from the yellow Jaundiſe in men: It is mortal, and many Horſes die thereof: the ſignes to know it is thus; pull down the lids of the Horſes eyes, and the white of the eye will be yellow, the inſide of his lips will be yellow, and gums; the cure followeth: Firſt, let him bloud in the palat of his mouth, that he may ſuck up the ſame, then give him this drink: Take of ſtrong Ale a quart, of the green ordure of Geeſe ſtrained, three or four ſpoonfuls, of the juyce of Celandine as much, of Saffron half an ounce; mix theſe together, and being warm, give it the Horſe to drink.

Of the evill habit of the Body, and of the Dropſie.

Blundevile. AS touching the drineſs and Conſumption of the fleſh, without any apparent cauſe why, called of the Phyſitians as I ſaid before *Atrophia*; I know not what to ſay more then I have already before in the Chapter of Conſumption of the fleſh, and therefore reſort thither. And as for the evill habit of the body, which is to be evill coloured, heavy, dull, and of no force, ſtrength, nor livelineſs, cometh not for lack of nutriment, but for lack of good nutriment, for that the bloud is corrupted with flegm, choler, or melancholy, proceeding either from the Spleen, or elſe through weakneſs of the ſtomach or liver, cauſing evill digeſtion, or it may come by foul feeding: yea, and alſo for lack of moderate exerciſe. The Evill habit of the body, is next couſen to the Dropſie, whereof though our Farriers have had no experience, yet becauſe mine old Authors writing of Horſe-leech-craft do ſpeak much thereof: I think it good here briefly to ſhew you their experience therein, that is to ſay, how to know it, and alſo how to cure it. But ſith none of them do ſhew the cauſe whereof it proceeds; I think it meet firſt therefore to declare unto you the cauſes thereof, according to the doctrine of the learned Phyſitians, which in mans body do make three kindes of Dropſies, calling the firſt *Anaſarca*, the ſecond *Aſcites*, and the third *Timpanius*. *Anaſarca*, is an univerſal ſwelling of the body through the abundance of the water, lying betwixt the skin and the fleſh, and differeth not from the diſeaſe laſt mentioned, called *Cachexia*, that is to ſay, Evill habit of the bloud, ſaving that the body is more ſwoln in this then in *Cachexia*, albeit they proceed both of like cauſes, as of coldneſs and weakneſs of the liver, or by means that the heart, ſpleen, ſtomach, and other members ſerving to digeſtion, be grieved or diſeaſed. *Aſcites* is a ſwelling in the covering of the belly, called of the Phyſitians *Abdomen*, comprehending both the skin, the fat, eight muſcles, and the film or panicle called *Peritoneum*, through the abundance of ſome whayiſh humor entred into the ſame, which beſides the cauſes before alleadged, proceedeth moſt chiefly by means that ſome of the veſſels within be broken or rather cracked, out of the which, though the bloud being ſomewhat groſs cannot iſſue forth, yet the whayiſh humor being ſubtil, may run out into the belly, like water diſtilling through a cracked pot.

Timpanias, called of us commonly the Timpany, is a ſwelling of the aforeſaid covering of the belly, through the abundance of winde entred into the ſame, which winde is ingendered of crudity and evill digeſtion, and whileſt it aboundeth in the ſtomach, or other intrails finding no iſſue out, it breaketh in violently through the ſmall conduits among the panicles of the aforeſaid covering not without great pain to the patient, and ſo by toſſing to and fro, windeth at length into the ſpace of the covering it ſelf. But ſurely ſuch winde cannot be altogether void of moiſture.

Notwithſtanding, the body ſwelleth not ſo much with this kinde of Dropſie as with the other kinde called *Aſcites*. The ſignes of the Dropſie is ſhortneſs of breath, ſwelling of the body, evill colour, lothing of meat, and great deſire to drink, eſpecially in the Dropſie called *Aſcites*, in which alſo the belly will ſound like a bottle half full of water: but in the Timpany it will ſound like a Taber. But now though mine Authors make not ſo many kindes of Dropſies, yet they ſay all generally, that a Horſe is much ſubject to the Dropſie. The ſignes according to *Abſyrtus* and *Hierocles*, be theſe: His belly, legs, and ſtones, will be ſwoln; but his back, buttocks, and flancks, will be dryed and ſhrunk up to the very bones.

Moreover the veins of his face and temples, and alſo the veins under his tongue will be ſo hidden, as you cannot ſee them; and if you thruſt your finger hard againſt his body, you ſhall leave the print thereof behinde, for the fleſh lacking natural heat will not return again to his place, and when the Horſe lyeth down he ſpreadeth himſelf abroad, not being able to lie round together on his belly; and the hair of his back by rubbing will fall away. *Pelagonius* in ſhewing the ſignes of the Dropſie, not much differing from the Phyſitians firſt recited, ſeemeth to make two kindes thereof, calling the one the *Timpany*, which for difference ſake may be called in *Engliſh* the Winde Dropſie, and the other the Water Dropſie. Notwithſtanding both have one cure, ſo far as I can perceive, which is in this ſort: Let him be warm covered, and walked a good while together in the Sun to provoke ſweat, and let all his body be well and often rubbed alongſt the hair, and let him feed upon Coleworts, Smallage, and Elming boughs, and on all other things that may looſen the belly, or provoke urine; and let his common meat be graſs if it may be gotten, if not, then Hay ſprinkled with Water and *Nitrum*. It is good alſo to give him a kinde of Pulſe called Cich, ſteeped a day and a night in water, and then taken out, and laid ſo as the water may drop away from it. *Pelagonius* would have him to drink Parſly ſtampt with Wine, or the root of the herb called in *Latine*, *Panax*, with Wine. But if the ſwelling of the belly will not decreaſe for all this, then ſlit a little hole under his belly a handful behinde the navil, and put into that hole a hollow reed or ſome other pipe, that the water or winde may go out, not all at once, but by little and little at divers times, and beware that you make not the hole over wide, leſt the kall of the belly fall down thereunto; and when all the water is clean run out, then heal up the wound as you do all other wounds, and let the Horſe drink as little as is poſſible.

Of the Evil habit of the Stomach.

Markham.

IF your Horſe either by inward ſickneſs, or by preſent ſurfeit, grow to a loath of his meat, or by weakneſs of his ſtomach caſt up his meat and drink; this ſhall be the cure for the ſame: Firſt, in all the drink he drinks, let him have the powder of hot Spices; as namely, of Ginger, Aniſe ſeeds, Licoras, Cinamon, and Pepper; then blow up into his noſtrils the powder of Tobacco to occaſion him to neeſe, inſtantly after he hath eaten any meat, for an hour together after. let one ſtand by him, and hold at his noſe a piece of ſowre leaven ſteept in Vinegar, then anoint all his breaſt over with the Oyl of Ginnuper and Pepper mixt together.

Of the diſeaſes of the Guts of a Horſe, and firſt of the Colick.

Blundevile.

THe guts of a Horſe may be diſeaſed with divers griefs, as with the Colick, with Coſtiveneſs, with the Lax, with the Bloudy flux and Worms. The Colick is a grievous pain in the great gut, called of the Phyſitians *Colon*, whereof this diſeaſe taketh his name, which gut, becauſe it is very large and ample, and full of corners, it is apt to receive divers matters, and ſo becometh ſubject to divers griefs. For ſometime it is tormented with the abundance of groſs humors gotten betwixt the panicle of the ſaid gut, and ſometime with winde having no iſſue out, ſometime with inflammation, and ſometime with ſharp fretting humors. But ſo far as I can learn, a Horſe is moſt commonly troubled with the Colick that cometh of winde, and therefore our Farriers do tearm it the winde Colick. The ſignes whereof be theſe: The Horſe will forſake his meat, and lie down and wallow and walter upon the ground, and ſtanding on his feet he will ſtamp for very pain with his fore-feet, and ſtrike on his belly with his hinder foot, and look often towards his belly, which alſo towards his flancks will ſwell, and ſeem greater to the eye then it was wont to be. The cure whereof according to *Martin*, is in this ſort: Take a quart of Malmſie, of Cloves, Pepper, Cinamon, of each half an ounce, of Sugar half a quartern, and give it the Horſe luke-warm, and anoint his flancks with Oyl of Bay, and then bridle him and trot him immediately up and down the ſpace of an hour, until he dung, and if he will not dung, then rake him; and if need be provoke him to dung, by putting into his fundament an Onyon pilled and jagged with a knife croſs-wiſe, ſo as the juyce thereof may tickle his fundament; and for the ſpace of three or four days let him drink no cold water, and let him be kept warm. *Ruſſius* was wont to uſe this kinde of cure: Take a good big reed a ſpan long or more, and being anointed with Oyl, thruſt it into the Horſes fundament, faſtning the outward end thereof unto his tail, ſo as it cannot ſlip out, and then having firſt anointed and chafed all the Horſes belly with ſome hot Oyl, cauſe him to be ridden haſtily up and down ſome hilly ground, and that will make him to void the winde out of his belly through the reed: which done, let him be kept warm and fed with good provender, and warm maſhes made of Wheat-meal, and Fennel ſeed, and let him drink no cold water until he be whole. *Abſyrtus* would have you to give him a Glyſter made of wilde Cowcumber, or elſe of Hens dung, *Nitrum*, and ſtrong Wine.

Of Coſtiveneſs, or Belly-bound.

Blundevile.

COſtiveneſs is when a Horſe is bound in the belly and cannot dung, which may come by glut of provender, or overmuch feeding and reſt, whereof we have talked ſufficient before, alſo by winde, groſs humors, or cold cauſing obſtruction, and ſtopping in the guts. The cure whereof, according to *Martin*, is in this ſort: Take of the decoction of Mallows a quart, and put thereunto half a pinte of Oyl, or in ſtead thereof, half a pinte of freſh Butter, and one ounce of *Benedicte laxative*, and pour that into his fundament with a little Horn meet for the purpoſe, that done, clap his tail to his fundament, holding it ſtill with your hand, whileſt another doth lead him in his hand, and trot him up and down, that the medicine may work the better, and having voided all that in his belly, bring him unto the ſtable, and there let him ſtand a while on the bit well covered, and warm littered, and then give him a little Hay, and let his drink be warmed; it ſhall not be amiſs alſo to give him that night a warm maſh.

Of the Lax.

THe *Italians* call this diſeaſe *Ragiatura*, and the Horſe that hath this diſeaſe *Cavallo Arragiato*, or *Sforato*. It may come through the abundance of cholerick humors deſcending from the liver or gall, down to the guts. But *Ruſſius* ſaith, that it cometh moſt commonly by drinking overmuch cold water immediately after provender, or by ſudden travelling upon a full ſtomach, before his meat be digeſted, or by haſty running, or galloping immediately after water. If this diſeaſe continue long, it will make the Horſe very weak and feeble, ſo as he ſhall not be able to ſtand on his legs. Notwithſtanding, ſith nature feeling her ſelf oppreſſed, endevoureth thus to eaſe her ſelf by expelling thoſe humors that grieve her, I would not wiſh you ſuddenly to ſtop it, leſt ſome worſe inconvenience grow thereof. But if you ſee that the Horſe looſeth his fleſh, and waxeth more dull and feeble then he was wont to be; then give him this drink often experimented by *Martin*, and that ſhall ſtop him: Take of Bean-flowre, and of Bole Armony, of each a quartern; mingle theſe things together in a quart of red Wine, and give it him luke-warm, and let him reſt and be kept warm, and let him drink no cold drink but luke-warm, and put therein a little Bean-flowre, and let him not drink but once a day, and then not over-much, for the ſpace of three or four days.

Of the Bloudy flux.

IT ſeemeth by the old Writers, that a Horſe is alſo ſubject to the Bloudy flux. For *Abſyrtus, Hierocles*, and *Democritus*, ſay all with one voyce, that the guts of a Horſe may be ſo exulcerated, that he will void bloudy matter at his fundament, yea and his fundament therewith will fall out, which diſeaſe they call *Dyſenteria*, which is as much to ſay, as a painful exulceration of the guts, under the which the old men as it ſeemeth by the words of *Hierocles*, and *Abſyrtus*, would comprehend the diſeaſe called of the Phyſitians *Tenaſmus*, that is to ſay, a deſire to dung often, and to do but little, and that with great pain: And alſo another diſeaſe called *Procidentia ani*, that is to ſay, the falling out of the fundament, which the Phyſitians do account as ſeveral diſeaſes. Notwithſtanding, for ſo much as *Dyſenteria*, and *Tenaſmus*, do ſpring both of like cauſes: yea, and alſo for that the falling out of the fundament hath ſome affinity with them, I will follow mine Authors, in joyning them all together in this one chapter.

The Phyſitians make divers kindes of Bloudy flux, for ſometime the fat of the ſlimy filth which is voided, is ſprinkled with a little bloud, ſometime the matter that voideth is mixt with the ſcraping of the guts, and ſometime it is wateriſh bloud, like water wherein fleſh hath been waſhed, and ſometime bloud mixt with melancholy, and ſometime pure bloud, and by the mixture of the matter you ſhall know in mans body, whether the ulceration be in the inner ſmall guts or no; if it be, the matter and bloud will be perfectly mixt together; but if it be in the outward guts, then they be not mingled together, but come out ſeveral, the bloud moſt commonly following the matter. Of this kinde is that diſeaſe called before *Tenaſmus*, for that is an ulcer in the right gut ſerving the fundament; and doth proceed even as the flux doth of ſome ſharp humors, which being violently driven, and having to paſs through many crooked and narrow ways, do cleave to the guts, and with their ſharpneſs fret them, cauſing exulceration and grievous pain. The flux alſo may come of ſome extream cold, heat or moiſtneſs, or by mean of receiving ſome violent purgation, having therein over-much Scammony, or ſuch like violent ſimple; or through weakneſs of the Liver, or other members ſerving to digeſtion. Now as touching the falling out of the fundament, the Phyſitians ſay, that it cometh through the reſolution or weakneſs of the muſcles, ſerving to draw up the fundament, which reſolution may come partly by over-much ſtraining, and partly they may be looſened by over-much moiſture, for which cauſe children being full of moiſture are more ſubject to this diſeaſe then men. And for the ſelf ſame cauſe I think that Horſes having very moiſt bodies be ſubject thereunto. Thus having ſhewed you the cauſes of the diſeaſes before recited, I will ſhew you the cure preſcribed by the old Writers. *Abſyrtus* would have the fundament on the outſide to be cut round about, but ſo as the inward ring thereof be not touched, for that were dangerous, and would kill the Horſe, for ſo much as his fundament would never abide within his body; and that done, he would have you to give him to drink the powder of unripe Pomgranate ſhels, called in *Latine*, *Malicorium*, together with Wine and Water, which indeed becauſe it is aſtringent, is not to be miſliked: but as for cutting of the fundament, I aſſure you I cannot judge what he ſhould mean thereby, unleſs it be to widen the fundament, by giving it long ſlits or cuts on the outſide; but well I know that it may cauſe more pain, and greater inflamation. And therefore me thinks it were better in this caſe to follow the Phyſitians precepts, which is firſt to conſider whether the fundament being fallen out be inflamed or not; for if it be not inflamed, then it ſhall be good to anoint it firſt with Oyl of Roſes ſomewhat warmed, or elſe to waſh it with warm red Wine.

But if it be inflamed, then to bathe it well, firſt with a ſpunge dipt in the decoction of Mallows, Camomile, Linſeed, and Fenigreek, and alſo to anoint it well with Oyl of Camomile and Dill mingled together, to aſſwage the ſwelling, and then to thruſt it in again fair and ſoftly, with a ſoft linnen cloth. That done, it ſhall be good to bathe all the place about with red red Wine, wherein hath been ſodden *Acatium*, Galles, Acorn cups, parings of Quinces, and ſuch like ſimples as be aſtringent, and then to throw on ſome aſtringent powder made of Bole Armony, Frankincenſe, *Sanguis Draconis*, Myrrhe, *Acatium*, and ſuch like: yea, and alſo to give the Horſe this drink, much praiſed of all the old Writers. Take of Saffron one ounce, of Myrrhe two ounces, of the herb called in *Latine*, *Abrotonum*, named in ſome of our *Engliſh* Herbals Southernwood, three ounces, of Parſly one ounce, of garden Rue, otherwiſe called Herb Grace three ounces, of *Piritheum*, otherwiſe called of ſome people Spittlewort, and of Hyſop, of each two ounces, of *Caſia*, which is like Cinamon, one ounce. Let all theſe things be beaten in fine powder, and then mingled with Chalk and ſtrong Vinegar wrought into paſte, of which paſte make little cakes, and dry them in the ſhadow, and being dryed, diſſolve ſome of them in a ſufficient quantity of Barly milk, or juyce called of the old Writers, and alſo of the Phyſitians, *Cremor Ptiſanæ*, and give to the Horſe to drink thereof with a horn, for the medicine, as the Authors write, doth not only heal the Bloudy-flix, and the other two diſeaſes before recited, but alſo if it be given with a quart of warm water, it will heal all grief and pain in the belly, and alſo of the bladder, that cometh for lack of ſtaling. And being given with ſweet Wine, it will heal the biting of any Serpent or mad Dog.

Of the Worms.

IN a Horſes guts do breed three kindes of Worms, even as there doth in Mans body, though they be not altogether like in ſhape. The firſt long and round, even like to thoſe that children do moſt commonly void, and are called by the general name Worms. The ſecond little worms having great heads, and ſmall long tails like a needle, and be called bots. The third be ſhort and thick like the end of a mans little finger, and therefore be cald Troncheons: and though they have divers ſhapes according to the diverſity of the place perhaps where they breed, or elſe according to the figure of the putrified matter whereby they breed: yet no doubt they proceed all of one cauſe, that is to ſay, of a raw, groſs and flegmatick matter apt to putrifaction, ingendered moſt commonly by foul feeding: and as they proceed of one ſelf cauſe, ſo alſo have they like ſignes, and like cure. The ſignes be theſe: The Horſe will forſake his meat, for the Troncheons and the Bots will covet always to the maw, and pain him ſore. He will alſo lie down and wallow, and ſtanding he will ſtamp and ſtrike at his belly with his hinder-foot, and look often toward his belly. *Blundevile.*

The cure according to *Martin* is thus: Take of ſweet Milk a quart, of Honey a quartern, and give it him luke-warm, and walk him up and down for the ſpace of an hour, and ſo let him reſt for that day, with as little meat or drink as may be, and ſuffer him not to lie down. Then the next day give him this drink: Take of Herb-grace a handful, of Savin as much, and being well ſtampt, put thereunto a little Brimſtone, and a little Soot of a Chimney, beaten into fine powder, and put all theſe things together in a quart of Wort or Ale, and there let them lie ſteep the ſpace of an hour or two, then ſtrain it well through a fair cloth, and give it the Horſe to drink luke-warm, then bridle him, and walk him up and down the ſpace of an hour: that done, bring him into the ſtable, and let him ſtand on the bit two or three hours, & then give him a little Hay. *Laurentius Ruſſius* ſaith, that it is good to give the Horſe the warm guts of a young Hen with a Salt three days together in the morning, and not to let him drink untill it be noon. Some ſay that it is good to ride him, having his bit firſt anointed with dung coming hot from the man: ſome again uſe to give him a quantity of Brimſtone, and half as much Rozen beaten into powder, and mingled together with his provender, which he muſt eat a good while before he drinketh.

I have found by often tryal, that if you give the Horſe with a horn a good pretty diſhful of Salt brine, be it fleſh brine, or Cheeſe brine, it will kill any of the three kindes of Worms, and make the Horſe to avoid them dead in ſhort time after.

Of Worms in general.

Markham.

BEſides the Bots, there are other Worms, which lie in the great paunch or belly of a Horſe, and they be ſhining, of colour like a Snake, ſix inches in length, great in the midſt and ſharp at both ends, and as much as a Spindle: they cauſe great pain in a Horſes belly, as you ſhall perceive by his continual ſtriking of himſelf on the belly with his foot. The cure is thus: Give him two or three mornings together new Milk and Garlick boyled together, or chopt Hay in his provender, either of both will ſerve: it killeth the worms and maketh them to void.

Of the pain in the Kidneys.

Blundevile.

ME thinks that the Kidnies of a Horſe ſhould be ſubject to as many griefs as the Kidnies of a Man, as to Inflamation, Obſtruction, Apoſtumes and Ulcers, and ſpecially to obſtruction that cometh by means of ſome ſtone or gravel gathered together in the Kidnies whereby the Horſe cannot ſtale but with pain; for I have ſeen divers Horſes my ſelf that have voided much gravel in their ſtale, which without doubt did come from the Kidnies; but my Authors do refer ſuch griefs to the bladder and urine, and write of no diſeaſe but only of the inflamation of the Kidnies, which is called of them *Nephritis*, and ſo it is cald of the Phyſitians It cometh, as they ſay, by ſome great ſtrain over ſome ditch; or elſe by bearing ſome great burthen. The ſignes whereof be theſe: The Horſe will go rolling behinde and ſtaggering, his ſtones will ſhrink up, and his ſtale will be blackiſh and thick. I think this diſeaſe differeth not from that which we called before the ſwaying of the back when we talked of the griefs in the back and loins, and therefore reſort thither. The cure of this diſeaſe, according to the beſt of the old Writers, is in this ſort: Bathe his back and loins with Wine, Oyl, and *Nitrum* warmed together, after that you have ſo bathed him, let him be covered with warm clothes, and ſtand littered up to the belly with ſtraw, ſo as he may lie ſoft; and give him ſuch drinks as may provoke urine, as thoſe that be made with Dill, Fennil, Aniſe, Smallage, Parſley, Spikenard, Myrrhe, and *Caſſia*. Some ſay it is good to give him a kinde of pulſe called Cich with Wine. Some again do praiſe Ewes milk, or elſe Oyl and Deers ſewet molten together, and given him to drink, or the root of the herb called *Aſphodelus*, *Engliſhed* by ſome Daffadil, ſodden in Wine.

Of the diſeaſes belonging to the Bladder and Urine of a Horſe.

HIerocles ſaith, that a Horſe is ſubject to three kinde of diſeaſes incident to the Bladder or Urine, the firſt is called *Stranguria*; the ſecond *Dyſuria*; the third *Iſchuria*. *Stranguria*, otherwiſe called in *Latine*, *Stillicidium*, and of our old Farriers, according to the *French* name *Chowdepis*, is, when the Horſe is provoked to ſtale often, and voideth nothing but a few drops, which cometh, as the Phyſitians ſay, either through the ſharpneſs of the urine, or by ſome exulceration of the bladder, or elſe by means of ſome Apoſtume in the liver or kidnies; which Apoſtume being broken, the matter reſorteth down into the bladder, and with the ſharpneſs thereof cauſeth a continual provocation of piſſing.

Dyſuria is when a Horſe cannot piſs but with great labour and pain, which for difference ſake I will call from hence forth the pain-piſs. It may come ſometime through the weakneſs of the bladder and cold intemperature thereof, and ſometime through the abundance of flegmatick and groſs humors, ſtopping the neck of the bladder. *Iſchuria*, is when the Horſe cannot piſs at all, and therefore may be called the piſs-ſuppreſt, or ſuppreſſion of urine, whether you will: me thinks always that the ſhorter and the more proper the name is, the better and more eaſie it is to pronounce.

It may come, as the Phyſitians ſay, by weakneſs of the bladder, or for that the Water conduit is ſtopt with groſs humors, or with matter deſcending from the liver or kidnies, or with the ſtone: yea and ſometimes by means of ſome inflamation or hard knob growing at the mouth of the conduit, or for that the ſinews of the bladder is nummed, ſo as the bladder is without feeling: or it may come by retention, and long holding of the water, moſt of which cauſes *Hierocles* alſo reciteth, adding thereunto that it may chance to a Horſe through over-much reſt and idleneſs, and alſo by means of ſome extream cold, and eſpecially in Winter ſeaſon; for the which, warmth of the fire is a preſent remedy. But now mine Authors do not ſhew for every one of theſe three kindes of diſeaſes ſeveral ſignes; but only ſay, that when a Horſe cannot ſtale, he will ſtand as though he would ſtale, and thruſt out his yard a little; and alſo for very pain, ſtand beating his tail betwixt his thighes.

Neither do they ſeem to appoint ſeveral cures, but do make a hochpoch, mingling them all together: ſome of them praiſing one thing, and ſome another: For ſome ſay it is good to mingle the juyce of Leeks with ſweet ſmelling Wine and Oyl together, and to pour it into his right noſtril, and then to walk him up and down upon it, and that will make him to ſtale. Some ſay it is good to give him Smallage ſeed, or elſe the root of wilde Fennil ſodden with Wine to drink; or to put fine ſharp Onions clean pilled, and ſomewhat bruiſed into his fundament, and to chaſe him immediately upon it, either by riding him or otherwiſe, and that ſhall cauſe him to ſtale preſently. It is good alſo to bathe all his back and loins with warm water.

The ſcraping of the inward parts of his own hoofs beaten into powder and mingled with Wine, and poured into his right noſtril, will make him to ſtale; if you chaſe him upon it, and the rather as *Hierocles* ſaith, if you cary him to ſome Sheeps cot, or other place where Sheep are wont to ſtand, the ſmell of whoſe dung and piſs, without any other medicine, as he ſaith, will provoke him to ſtale.

Some will give the Horſe white Dogs dung dryed and mingled with Salt, Wine, and *Ammoniacum* to drink; ſome Hogs dung only with Wine, and ſome the dregs of Horſe-piſs with Wine, and many other medicines which I leave to rehearſe, for fear of being too tedious, and eſpecially, ſith *Martins* experience doth follow here at hand; agreeing in all points with *Laurentius Ruſſius* cure, which is in this ſort: Firſt, draw out his yard, and waſh it well in white Wine, and ſcour it well, becauſe it will be many times ſtopped with durt and other baggage together, and hardned like a ſtone, and then put a little Oyl of Camomile into the conduit, with a wax Candle and a bruiſed clove of Garlick, and that will provoke him to ſtale. And if that will not help: Take of Parſley two handfuls, of Coriander one handful, ſtamp them and ſtrain them with a quart of white Wine, and diſſolve therein one ounce of Cake-ſope, and give it luke-warm unto the Horſe to drink, and keep him as warm as may be; and let him drink no cold water for the ſpace of five or ſix days; and when you would have him to ſtale, let it be either upon plenty of ſtraw, or upon ſome green plot, or elſe in a Sheeps cot, the ſavour whereof will greatly provoke him to ſtale, as hath been aforeſaid.

Of Piſſing Bloud.

PElagonius ſaith, that if a Horſe be over-much laboured, or over-charged with heavy burthen, or over fat, he will many times piſs bloud, and the rather as I think, for that ſome vein is broken within the Horſes body, and then cleer bloud will come forth many times, as the Phyſitians ſay, without any piſs at all. But if the bloud be perfectly mingled together with his ſtale, then it is a ſigne that it cometh from the Kidnies, having ſome ſtone therein, which through vehement labour, doth fret the kidnies and veins thereof, and ſo cauſe them to bleed, through which while the urine paſſeth, muſt needs be infected and dyed with the bloud. It may come alſo by ſome ſtripe, or from the muſcle that incloſeth the neck of the bladder. The cure according to *Pelagonius*, *Abſyrtus*, *Hierocles*, and the reſt, is thus: Let the Horſe bloud in the palate of the mouth, to convert the bloud the contrary way; then take of Tragagant that hath been ſteeped in Wine, half an ounce, and of Poppy ſeed one dram and one ſcruple, and of Stirax as much, and twelve Pine-apple-kernels: let all theſe things be beaten and mingled well together, and give the Horſe thereof every morning, the ſpace of ſeven days, the quantity of a Haſel-nut diſtempered in a quart of Wine: me thinks that the quantity of a Wal-nut were too little for ſo much Wine. Some write that it is good to make him a drink with the root of the herb *Aſphodelus*, which ſome call Daffadil, mingled with Wheat-flowre and Sumach ſodden long in water, and ſo to be given the Horſe with ſome Wine added thereunto; or make him a drink of Goats milk and Oyl, ſtraining thereunto a little Fromenty. *Anatolius* ſaith, that it is good to give the Horſe three days together, ſodden Beans clean pilled, whereunto would be added ſome Deers Sewet, and a little Wine.

Of the Colt Evil.

Blundevile.

THis name Colt Evil, in my judgement, doth properly ſignifie that diſeaſe, which the Phyſitians call *Priapiſmus*, which is a continual ſtanding together, with an unnatural ſwelling of the yard proceeding of ſome winde, filling the arteries and hollow ſinew or pipe of the yard; or elſe through the abundance of ſeed, which do chance oftentimes to man, and I think ſometime to ſtoned Horſes. Notwithſtanding *Martin* ſaith that the Colt Evil is a ſwelling of the ſheath of the yard, and part of the belly thereabout, cauſed of corrupt ſeed, coming out of the yard, and remaining within the ſheath where it putrifieth. And Geldings moſt commonly are ſubject to this diſeaſe, not being able for lack of natural heat, to expel their ſeed any further. For Horſes, as *Martin* ſaith, are ſeldom troubled with this diſeaſe, becauſe of their heat, unleſs it be when they have been over travelled, or otherwiſe weakened. The cure, according to him is thus: Waſh the ſheath clean within with luke-warm Vinegar, then draw out his yard and waſh that alſo: that done, ride him into ſome running ſtream up to the belly, toſſing him therein to and fro to allay the heat of the members, and uſe him thus two or three days, and he ſhall be whole.

Another of the Colt Evil.

Markham.

THe Colt Evil is a diſeaſe that cometh to ſtoned Horſes, through rankneſs of nature and want of vent, it appeareth in his cod and ſheath, which will ſwell exceedingly; the cure is nothing: for if you will but every day, twice or thrice drive him to the mid-ſide in ſome Pond or running River, the ſwelling will fall, and the Horſe will do well. If the Horſe be of years, and troubled with this grief; if you put him to a Mare, it is not amiſs; for ſtanding ſtill in a ſtable without exerciſe, is a great occaſion of this diſeaſe.

Of the mattering of the Yard.

IT cometh at covering time, when the Horſe and Mare both are over-hot, and ſo perhaps burn themſelves. The cure according to *Martin* is thus: Take a pinte of white Wine, and boil therein a quartern of roch Allum, and ſquirt thereof into his Yard three or four ſquirtfuls, one after another, and thruſt the ſquirt ſo far as the liquor may pierce to the bottom, to ſcour away the bloudy matter, continuing thus to do once a day untill he be whole.

Of the ſhedding of Seed.

Blundevile. THis diſeaſe is called of the Phyſitians *Gonorrhea*, which may come ſometime through abundance and ranckneſs of ſeed, and ſometime by the weakneſs of the ſtones and ſeed veſſels not able to retain the ſeed untill it be digeſted and thickned. *Vegetius* ſaith, that this diſeaſe will make the Horſe very faint and weak, and eſpecially in Summer ſeaſon. For cure whereof, the ſaid *Vegetius* would have the Horſe to be ridden into ſome cold water, even up to the belly, ſo as his ſtones may be covered in water; and then his fundament being firſt bathed with warm water and Oyl, he would have you to thruſt in your hand and arm even to the very bladder, and ſoftly to rub and claw the ſame, and the parts thereabouts, which be the ſeed veſſels: that done to cover him warm that he take no cold, and every day he would have you to give the Horſe Hogs dung to drink with red Wine untill he be whole. I for my part, if I thought it came of weakneſs, as is aforeſaid, which I would judge by the wateriſhneſs of the ſeed and unluſtineſs of the Horſe, would give him red Wine to drink, and put therein a little *Acatium*, the juyce of Plantain, and a little Maſtick, and bath his back with red Wine and Oyl of Roſes mingled together.

Of the Falling of the Yard.

IT cometh, as I take it, through the weakneſs of the member, by means of ſome reſolution in the muſcles and ſinews ſerving the ſame, cauſed at the firſt (perhaps) by ſome great ſtrain or ſtripe on the back. It may come alſo by wearineſs and tiring. For remedy whereof, *Abſyrtus* was wont to waſh the yard with ſalt water from the Sea, if it may be gotten; and if not, with water and ſalt; and if that prevailed not, he would all to prick the outmoſt skin of the yard with a ſharp needle, but not deep, and then waſh all the pricks with ſtrong Vinegar, and that did make the Horſe, as he ſaith, to draw up his yard again immediately; yea, and this alſo will remedy the falling out of the fundament. *Pelagonius* would have you to put into the pipe of his yard, Honey and Salt boyled together and made liquid, or elſe a quick flie, or a grain of Frankincenſe, or a clove of Garlick clean pilled, and ſomewhat bruiſed; and alſo to pour on his back Oyl, Wine, Nitre made warm and mingled together. But *Martins* experience is in this ſort: Firſt, waſh the yard with warm white Wine, and then anoint it with Oyl of Roſes and Honey mingled together, and put it up into the ſheath, and make him a Cod-piece of Canvas to keep it ſtill up, and dreſs it thus every day once until it be whole. And in any caſe let his back be kept warm, either with a double cloth, or elſe with a charge made of Bole Armony, Egges, Wheat-flowre, *Sanguis Draconis*, Turpentine, and Vinegar; or elſe lay on a wet ſack, which being covered with another dry cloth will keep his back very warm.

Of the ſwelling of the Cod and Stones.

A*Bſyrtus* ſaith, that the inflamation and ſwelling of the cod and ſtones, cometh by means of ſome wound, or by the ſtinging of ſome Serpent, or by fighting one Horſe with another. For remedy whereof, he was wont to bathe the cod with water wherein hath been ſodden the roots of wilde Cowcumber and Salt, and then to anoint it with an Ointment made of *Ceruſa* Oyl, Goats greaſe, and the white of an Egge. Some again would have the cod to be bathed in warm Water, *Nitrum*, and Vinegar together, and alſo to be anointed with an Ointment made of Chalk, or of Potters earth, Oxe dung, Cumin, Water and Vinegar, or elſe to be anointed with the juyce of the herb *Solanum*, called of ſome Night-ſhade, or with the juyce of Hemlock growing on dunghils: yea, and alſo to be let bloud in the flanks. But *Martin* ſaith, that the ſwelling of the cods cometh for the moſt part after ſome ſickneſs or ſurfeting with cold, and then it is a ſigne of amendment. The cure according to his experience is in this ſort. Firſt let him bloud on both ſides the flank veins. Then take of Oyl of Roſes, of Vinegar of each half a pinte, and half a quartern of Bole Armony beaten to powder. Mingle them together in a cruſe, and being luke-warm, anoint the cods therewith with two or three feathers bound together, and the next day ride him into the water, ſo as his cods may be within the water, giving him two or three turns therein, and ſo return fair and ſoftly to the ſtable, and when he is dry anoint him again as before, continuing thus to do every day once until they be whole. The ſaid *Martin* ſaith alſo, the cods may be ſwollen by means of ſome hurt or evill humors reſorting into the cod, and then he would have you cover the cods with a charge made of Bole Armony and Vinegar wrought together, renewing it every day once untill the ſwelling go away, or that it break of it ſelf, and if it break, then tent it with *Mel Roſatum*, and make him a breech of Canvas to keep it in, renewing the tent every day once untill it be whole.

Of incording and burſting.

Blundevile.

THis term Incording is borrowed of the *Italian* word *Incordato*, which in plain *Engliſh* is as much to ſay as Burſten, and might be more rightly termed of us Incodded. For when a Horſe is Burſten, his guts falleth down into the cod making it to ſwell. The *Italians*, as I take it, did call it *Incordato*, becauſe the gut follows the ſtring of the ſtone, called of them *Il cordone*, or *La corda*, whereof *Incordata* ſeems to be derived with ſome reaſon. According to which reaſon we ſhould call it rather Inſtringed, then Incorded; for *Corda* doth ſignifie a ſtring or cord. Notwithſtanding, ſith that Incording is already received in the ſtable, I for my part am very well content therewith, minding not to contend againſt it. But now you have to note, that either Man or Beaſt may be Burſten diverſly, and according to the names of the parts grieved, the Phyſitians do give it divers names; for you ſhall underſtand, that next unto the thick outward skin of the belly, there is alſo another inward thin skin covering all the muſcles, the Caul, and the guts of the belly, called of the Anatomiſts *Peritoneum*, which skin cometh from both parts and ſides of the back; and is faſtened to the Midriffe above, and alſo to the bottom of the belly beneath, to keep in all the contents of the neather belly. And therefore if the skin be broken, or over ſore ſtrained or ſtretched, then either ſome part of the caul or guts ſlippeth down, ſometime into the cod, ſometime not ſo far.

If the guts ſlip down into the cod, then it is called of the Phyſitians by the *Greek* name *Enterocele*, that is to ſay, Gut-burſten. But if the caul fall down into the cod, then it is called of the Phyſitians *Epiplocele*, that is to ſay, Caul-burſten. But either of the diſeaſes is moſt properly incident to the male kinde, for the female kinde hath no cod. Notwithſtanding they may be ſo burſten, as either gut or caul may fall down into their natures, hanging there like a bag; but if it fall not down ſo low, but remaineth above nigh unto the privy members or flanks, which place is called of the *Latins*, *Inguen*, then of that place the Burſting is called of the Phyſitians *Bubonocele*, whereunto I know not what *Engliſh* name to give, unleſſe I ſhould call it flank-burſten. Moreover, the cod or flank may be ſometimes ſwollen, by means of ſome wateriſh humour gathered together in the ſame, which is called of the Phyſitians *Hydrocele*, that is to ſay, Water-burſten; and ſometimes the cod may be ſwollen by means of ſome hard peece of fleſh cleaving to the thin skins or panicles of the ſtones, and then it is called of the Phyſitians *Sarcocele*, that is to ſay, Fleſh-burſten.

But foraſmuch as none of mine Authors, *Martin*, nor any other Farrier in theſe dayes that I know, have intermedled with any kind of Burſting, but only with that wherein the gut falleth down into the cod; leaving all the reſt apart, I will only talk of this, and that according to *Martins* experience, which I aſſure you differeth not much from the precepts of the old writers: But firſt you ſhall underſtand, that the Gut-burſten, and Flank-burſten, doth proceed both of one cauſe, that is to ſay, by means that the skin, called before *Peritoneum*, is either ſore ſtrained, or elſe broken, either by ſome ſtripe of another Horſe, or elſe by ſome ſtrain in leaping over a hedge, ditch, or pale, or otherwiſe; yea, and many times in paſſing a career, through the careleſneſs of the Rider, ſtopping the Horſe ſuddenly without giving warning, whereby the Horſe is forced to caſt his hinder legs abroad, and ſo ſtraineth or burſteth the skin aforeſaid, by means whereof the gut falleth down into the cod. The ſigns be theſe; The Horſe will forſake his meat, and ſtand ſhoring and leaning alwayes on that ſide that he is hurt; and on that ſide if you ſearch with your hand betwixt the ſtone and the thigh upward to the body, and ſomewhat above the ſtone, you ſhall find the gut it ſelf big and hard in the feeling, whereas on the other ſide you ſhall find no ſuch thing. The cure, according to *Martin*, is thus; Bring the Horſe into ſome houſe or place that hath over head a ſtrong balk or beam going overthwart, and ſtrew that place thick with ſtraw; then put on four paſternes with four rings on his feet, and then faſten the one end of a long rope to one of thoſe rings, then thread all the other rings with the looſe end of the rope, and ſo draw all his four feet together, and caſt him on the ſtraw. That done, caſt the rope over the baulk, and hoiſe the Horſe ſo as he may lie flat on his back, with his legs upward without ſtrugling. Then bathe his ſtones well with warm Water and Butter molten together, and the ſtones being ſomewhat warm, and well mollified, raiſe them up from the body with both your hands being cloſed by the fingers faſt together, and holding the ſtones in your hands in ſuch manner, work down the gut into the body of the Horſe, by ſtriking it downward continually with your two thumbs, one labouring immediately after another, untill you perceive that ſide of the ſtone to be ſo ſmall as the other, and having ſo diſcorded, that is to ſay, returned the gut into his right place; take a liſt of two fingers broad throughly anointed with freſh Butter, and tie his ſtones both together with the ſame ſo nigh as may be, not over hard, but ſo as you may put your finger betwixt. That done, take the Horſe quietly down, and lead him fair and ſoftly into the ſtable, where he muſt ſtand warm, and not be ſtirred for the ſpace of three weeks. But forget not the next day after his diſcording to unlooſen the liſt, and to take it away, and as well at that time, as every day once or twice after, to caſt a diſh or two of cold water up into his cods, and that will cauſe him to ſhrink up his ſtones, and thereby reſtrain the gut from falling down, and at the three weeks end be ſure, it were not amiſſe to geld the ſtone on that ſide away, ſo ſhall he never be encorded again on that ſide. But let him not eat much nor drink much, and let his drink be alwayes warm.

Of

Of the botch in the grains of a Horſe.

IF a Horſe be full of humours and then ſuddenly laboured, the humors will reſort into the weakeſt parts, and there gather together and breed a Botch, and eſpecially in the hinder parts betwixt the thighs, not far from the cods. The ſignes be theſe; The hinder legs will be all ſwollen, and eſpecially from the hoofs upward, and if you feel with your hand you ſhall find a great kind of ſwelling, and if it be round and hard it will gather to a head. The cure, according to *Martin*, is thus; Firſt ripe it with a plaiſter; take of Wheat-flowre, of Turpentine, and of Hony, of each a like quantity, ſtirring it together to make a ſtiffe plaiſter, and with a cloth lay it unto the ſore, renewing it every day once untill it break or wax ſoft, and then lance it as the matter may run downward; then tent it with Turpentine and Hogs greaſe molten together, renewing it every day once, untill it be whole.

Of the diſeaſes incident to the womb of a Mare, and ſpecially of barrenneſs.

IT ſeemeth by ſome writers, that the womb of a Mare is ſubject to certain diſeaſes, though not ſo many as the womb of a Woman, as to aſcent, deſcent, falling out, Convulſion, Barrenneſs, aborſement; yea, *Ariſtotle* and others do not let to write, that menſtrual bloud doth naturally void from the Mare, as from the Woman, though it be ſo little in quantity, as it cannot be well perceived. But ſith none of mine Authors have written thereof to any purpoſe, nor any Farrier of this time that I know, have had any experience in ſuch matters, I will paſſe them all over with ſilence, ſaving barrenneſſe, whereof I promiſed before in his due place, to declare unto you the cauſes and ſuch kind of cure for the ſame, as the old writers have taught. A Mare then may be barren through the untemperateneſs of the womb or matrix, as well for that it is too hot and fiery, or elſe too cold and moiſt, or too dry, or elſe too ſhort, or too narrow, or having the neck thereof turned awry, or by means of ſome obſtruction or ſtopping in the matrix; or for that the Mare is too fat, or too lean, and many times Mares go barren, for that they be not well Horſed. Wel, the cure of barrenneſs that cometh through the fault of the matrix or womb according to the old writers is thus; Take a good handful of Leeks, ſtamp them in a morter with half a glaſſe full of wine, then put thereunto twelve Flies, called of the Apothecaries *Cantharides*, of divers colours, if they may be gotten, then ſtrain all together with a ſufficient quantity of water to ſerve the Mare therewith two dayes together, by powring the ſame into her nature with a horn or glyſter-pipe made of purpoſe, and at the end of three dayes next following offer the Horſe unto her that ſhould cover her, and immediately after that ſhe is covered, waſh her nature twice together with cold water.

Another receipt for the ſame purpoſe.

TAke of Nitrum, of Sparrows dung, and Turpentine, of each a like quantity well wrought together and made like a Suppoſitory, and put that into her nature, and it will cauſe her to deſire the Horſe, and alſo to conceive. *Hippocrates* ſaith, that it is good alſo to put a nettle into the Horſes mouth that ſhould cover her.

Of the Itch, Scab, and Mangineſs in the tail, and falling of the tail.

Blundevile. IN Spring time Horſes many times are troubled with the Troncheons in their fundament, and then they will rub their tail, and break the hair thereof, and yet in his tail perhaps, ſhall be neither Itch, Scurffe nor Scab; wherefore if you rake the Horſe well with your hand anointed with Sope, and ſearch for thoſe Troncheons and pull them clean out, you ſhall cauſe him to leave rubbing: and if you ſee that the hair do fall away it ſelf, then it is a ſign, that it is either eaten with Worms, or that there is ſome Scurffe or Scab fretting the hair, and cauſing ſuch an itch in his tail as the Horſe is alwayes rubbing the ſame. As touching the wormes, Scurffe or Scab, it ſhall be good to anoint all the tail with Sope, and then to waſh it clean even to the ground with ſtrong lie, and that will kill the Wormes, and make the hair to grow again. And if much of the tail be worn away, it ſhall be needful to keep the tail continually wet with a ſpunge dipt in fair water, and that will make the hair to grow very faſt. But if the Horſes tail be mangy, then heal that like as you do the mangineſs of the mane before rehearſed. Again, if there breed any Canker in the tail (which will conſume both fleſh and bone, and as *Laurentius Ruſſius* ſaith, make the joints to fall away one by one) it ſhall be good, as *Martin* ſaith, to waſh all his tail with *Aqua fortis*, or ſtrong water made in this ſort: take of green Copperas, of Allum, of each one pound, of white Copperas a quartern. Boyl of all theſe things together in three quarts of running water in a ſtrong earthen pot, untill one half be conſumed, and then with a little of this water being made lukewarm, waſh his tail with a little clout, or flax bound to the end of a ſtick, continuing ſo to do every day once untill it be whole.

Of the Scab.

THe Scab is a foul ſcurffe in divers parts of a Horſes body, and cometh of poverty or ill keeping, or many times by going amongſt woods wherein they are infected with water boughs: it is moſt incident to old Horſes, which will die thereof, and chiefly in the Spring time when the new bloud appears: the cure whereof I have ſpoken before.

How to know when a Horſe halteth before in what part his grief is.

BEing now come to talke of the griefs in the ſhoulders, legs, hips, houghes, joynts and hoofs, cauſing the Horſe moſt commonly to halt: I think it good firſt to ſhew you the way how to find in what part of his legs the Horſe is grieved when he halteth either before or behind. And firſt you have to conſider that if a Horſe halteth before, it muſt be either in his ſhoulders, in his legs, or in his feet. If it be in his ſhoulders and new hurt, the Horſe will not lift that leg, but trail it nigh the ground. If it be old hurt, he will caſt that leg further from him in his going then the other, and if he be turned on the foreſide, then he will halt ſo much the more. If a Horſe halteth in the leg, it is either in the knee, in the ſhank, or elſe in the paſtern joynt; if it be either in the knee, or paſtern joynt, he will not bow that leg in his going like the other, but go very ſtifly upon it. If he halteth in the ſhank, then it is by means of ſome ſplent, wind gal, or ſuch apparent grief, apt to be ſeen or felt. If he halt in the foot, it is either in the cronet, heel, in the toe, in the quarters, or ſole of the foot. If it be in the cronet, the grief will be apparent, the skin being broken or ſwollen ſome manner of way. If in the heel, as by over-reach, or otherwiſe, then he will tread moſt on the toe. If upon any of the quarters, then going on the edge of a bank or hilly ground, he will halt more then on the plain ground, and by the Horſes coming toward you, and going from you upon ſuch edge or bank, you ſhall eaſily perceive whether his grief be in the inward quarter or in the outward quarter; the quarter is to be underſtood, from the mid hoof to the heel.

If he halt in the toe, which is not commonly ſeen, then he will tread more upon the heel. If the grief be in the ſole of the foot, then he will halt all after one ſort upon any ground, unleſſe it be upon the ſtones. And to be ſure in what part of the foot the grief is, it ſhall be good firſt to make him go upon the plain ground, and then upon a hard and ſtony ground: yea, and alſo a bankie ground. Thus having declared unto you in general, how to know in what part a Horſe is grieved when he halteth before: I think it meet firſt to ſhew you orderly all the particular griefs and ſorances, whereunto the foreparts of a Horſe is ſubject, together with the cauſes, ſignes and cure thereof. That done, I will ſpeak of halting behind, and ſhew you firſt generally where the grief is, and then particularly declare unto you every grief incident to the hinder parts of a Horſe. And laſtly, I will ſpeak of ſuch griefs and ſorances as are commonly in both parts, that is to ſay, as well to the fore legs and fore feet, as to the hinder legs and hinder feet.

Of the grief and pinching in the ſhoulder.

THis cometh either by labouring and ſtraining the Horſe too young, or elſe by ſome great burthen; you ſhall perceive it by the narrowneſs of the breaſt, and by conſuming fleſh of the ſhoulders, inſomuch as the forepart of the ſhoulder bone will ſtick out, and be a great deal higher then the fleſh. And if it be of long continuance, he will be very hollow in the brisket towards the armeholes, and he will go wider beneath at the feet, then above at the knees. The cure, according to *Martin*, is thus. Give him a ſlit of an inch long with a ſharp knife or raſor upon both ſides an inch under the ſhoulder bones: then with a Swans quill put into the ſlit, blow up firſt the one ſhoulder, and then the other, as big as can poſſible, even up to the withers, and with your hand ſtrike the winde equally into every place of the ſhoulſders. And when they be full, then beat all the windy places with a good haſell wand, or with both your hands, clapping upon the places puffed up with wind, ſo faſt as they can walk one after another over all the ſhoulder; then with a flat ſlice of iron, looſen the skin within from the fleſh: that done, roll the two ſlits or cuts with two round rols made of the upper leather of an old ſhooe, with a hole in the middeſt that the matter may iſſue forth, and let ſuch rols be three inches broad, and ſo put in as they may lie plain and flat within the cut; then make a charge to lay upon the ſame in this ſort; Take of Pitch, and Roſen, of each one pound, of Tar half a pinte, boyl theſe things all together in a pot, and when it is ſomewhat cooled, take a ſtick with a woollen clout bound faſt to the end thereof, and dip it into this charge, and cover and daub all the ſhoulder therewith. That done, clap thereunto a pound of Flox of ſuch colour as the Horſe is, or as nigh unto the ſame as may be, every other day cleanſe both the wounds and rols, and put them in again, continuing thus to do the ſpace of fifteen dayes. Then take them out, and heal up the wounds with two tents of Flax dipt in Turpentine, and Hogs greaſe molten together, renewing the ſame every day once, untill the wounds be whole. But let the charge lie ſtill, untill it fall away of it ſelf, and let the Horſe run to graſſe untill he hath had a froſt or two.

Of

Of the wrinching of the Shoulder.

This cometh ſometime by a fall, and ſometime by turning too ſuddenly in ſome uneven ground, or by raſh running out of ſome door, or by ſome ſtripe of another Horſe, or by ſome ſudden ſtop in paſsing a Career: you ſhall perceive it in his going, by trailing his legs upon the ground, ſo cloſe unto himſelf as he can poſsible. The cure, according to *Martin*, is thus: Let him bloud the quantity of three pintes, on the breaſt in the palat-vein, receiving the bloud in a pot; and thereunto put firſt a quart of ſtrong Vinegar, and half a dozen broken Egges, ſhels and all, and ſo much Wheat-flowre as will thicken all that liquor. That done, put thereunto Bole Armony beaten into fine powder one pound, *Sanguis Draconis* two ounces, and mingle them all together, ſo as the flowre may not be perceived, and if it be too ſtiffe, you may make it more liquid or ſoft, with a little Vinegar. Then with your hand daub all the ſhoulder from the mane downward, and betwixt the fore-bowels, all againſt the hair, and let not the Horſe depart out of that place, untill the charge be ſurely faſtned unto the skin.

That done, carry him into the ſtable, and tie him up to the rack, and ſuffer him not to lie down all that day, and give him a little meat, dieting him moderately the ſpace of fifteen days: during which time he may not ſtir out of his place, but only lie down, and every day once refreſh the ſhoulder point with this charge, laying ſtill new upon the old, and at the fifteen days end, lead him abroad to ſee how he goeth, and if he be ſomewhat amended, then let him reſt without travelling, the ſpace of one month; and that ſhall bring his ſhoulder to perfection. But if he be never the better for this that is done, then it ſhall be needful to rowel him with a leather rowel upon the ſhoulder-point, and to keep him rowelled the ſpace of fifteen days, renewing the rowel, and cleanſing the wound every other day; and then walk him up and down fair and ſoftly, and turn him always on the contrary ſide to the ſore; and when he goeth upright, pull out the rowel and heal the wound with a tent of flax dipt in Turpentine, and Hogs greaſe molten together. And if all this will not ſerve, then it ſhall be needful to draw him checker-wiſe with a hot iron over all the Shoulder-point; and alſo make him to draw in a plough every day two hours at the leaſt, to ſettle his joynts for the ſpace of three weeks or a month; and if any thing will help him, theſe two laſt remedies will help him, and make him to go upright again.

Of Splaiting in the Shoulder.

This cometh by ſome dangerous ſliding or ſlipping, whereby the ſhoulder parteth from the breaſt, and ſo leaves an open rift, not in the skin, but in the fleſh and film next under the skin, and ſo he halteth and is not able to go; you ſhall perceive it by trailing his leg after him in his going. The cure according to *Martin* is thus: Firſt put a pair of ſtraight paſterns on his fore-feet, keeping him ſtill in the ſtable without diſquieting him: Then take of *Dialthea* one pound, of Sallet Oyl one pinte, of Oyl-de-bays half a pound, of freſh Butter half a pound; melt all theſe things together in a Pipkin, and anoint the grieved place therewith, and alſo round about the inſide of the ſhoulder, and within two or three days after, both that place and all the ſhoulder beſides will ſwell. Then either prick him with a lancet or fleam, in all the ſwelling places, or elſe with ſome other ſharp hot Iron, the head whereof would be an inch long, to the intent that the corruption may run out, and uſe to anoint it ſtill with the ſame Ointment. But if you ſee that it will not go away, but ſwell ſtill, and gather to a head, then lance it where the ſwelling doth gather moſt, and is ſoft under the finger, and then tent it with flax dipt in this Ointment: Take of Turpentine and of Hogs greaſe, of each two ounces, and melt them together, renewing the tent twice a day untill it be whole.

Of the Shoulder pight.

Blundevile.

This is when the ſhoulder point or pitch of the ſhoulder is diſplaced, which grief is called of the *Italians*, *Spallato*; and it cometh by reaſon of ſome great fall forward, ruſh or ſtrain. The ſignes be theſe: That ſhoulder-point will ſtick out further then his fellow, and the Horſe will halt right down. The cure according to *Martin* is thus: Firſt make him to ſwim in a deep water up and down a dozen turns, and that ſhall make the joynt to return into his place. Then make two tough pins of Aſhen wood as much as your little finger, ſharp at the points, each one five inches long: that done, ſlit the skin an inch above the point, and an inch beneath the point of the ſhoulder, and thruſt in one of the pins from above downward, ſo as both ends may equally ſtick without the skin. And if the pin of wood will not eaſily paſs through, you may make it way firſt with an Iron pin. That done, make other two holes croſs to the firſt holes, ſo as the other pin may croſs the firſt pin right in the midſt with a right croſs, and the firſt pin would be ſomewhat flat in the midſt, to the intent that the other being round, may paſs the better without ſtop, and cloſe the juſter together. Then take a piece of a little line ſomewhat bigger then a whip-cord, and at one end make a loop, which being put over one of the pins ends, winde the reſt of the line good and ſtraight about the pins ends, ſo as it may lie betwixt the pins ends and the skin, and faſten the laſt end with a pack-needle and packthread unto the reſt of the cord, ſo as it may not ſlip: and to do well, both the pricks and the cord would be firſt anointed with a little Hogs greaſe. Then bring him into the ſtable, and let him reſt the ſpace of nine days, but let him lie down as little as may be, and put on a paſtern on the ſore leg, ſo as it may be bound with a cord unto the foot of the manger, to keep that leg always whileſt he ſtandeth in the ſtable more forward then the other. And at the nine days end take out the pricks, and anoint the ſore places with a little *Dialthea*, or with Hogs greaſe, and then turn him out to graſs.

Of the ſwelling of the Fore-legs after great labor.

Great labour and heat cauſeth humors to reſort down into the legs making them ſwell. The cure whereof according to *Martin* is thus: Bathe them with buttered Beer, or elſe with this bath here following: Take of Mallows three handfuls, a Roſe cake, Sage one handful: boil them together in a ſufficient quantity of water, and when the Mallows be ſoft, put in half a pound of Butter, and half a pinte of Sallet Oyl, and then being ſomewhat warm, waſh the ſwelling therewith every day once, the ſpace of three or four days. And if the ſwelling will not go away with this; then take Wine lees, and Cumin, and boil them together, and put thereunto a little Wheat-flowre, and charge all the ſwelling therewith, and walk him often: and if it will not ſerve, then take up the great vein above the knee on the inſide, ſuffering him not to bleed from above, but all from beneath.

Of the Foundering in the Fore-legs.

The cauſe of this grief is declared before in the Chapter of foundering in the body, whereas I ſhewed you, that if a Horſe be foundered in the body, the humors will immediately reſort down into his legs, as *Martin* ſaith, within the ſpace of 24 hours, and then the Horſe will go crouching all upon the hinder-legs, his fore-legs being ſo ſtiffe, as he is not able to bow them. The cure whereof, according to *Martin*, is in this ſort: Garter each leg immediately one handful above the knee, with a liſt good and hard, and then walk him or chaſe him, and ſo put him in a heat, and being ſomewhat warmed, let him bloud in both the breaſt veins, reſerving the bloud to make a charge withall in this manner:

Take of that bloud two quarts, and of Wheat-flowre half a peck, and ſix Egges, ſhels and all, of Bole Armony half a pound, of *Sanguis Draconis* half a quartern, and a quart of ſtrong Vinegar; mingle them all together, and charge all his ſhoulders, breaſt, back, loyns, and fore-legs therewith, and then walk him upon ſome hard ground, ſuffering him not to ſtand ſtill; and when the charge is dry, refreſh it again. And having walked him three or four hours together, lead him into the ſtable, and give him a little warm water with ground Mault in it, and then a little Hay and provender, and then walk him again, either in the houſe, or elſe abroad, and continue thus the ſpace of four days: and when all the charge is ſpent, cover him well with a houſing cloth, and let him both ſtand and lie warm, and eat but little meat during the four days. But if you ſee that at four days end he mendeth not a whit, then it is a ſign that the humor lies in the foot, for the which you muſt ſearch with your Butter, paring all the ſoles of the fore-feet ſo thin as you ſhall ſee the water iſſue through the ſole. That done, with your Butter, let him bloud at both the toes, and let him bleed well. Then ſtop the vein with a little Hogs greaſe, and then tack on the ſhooes, and Turpentine molten together, and laid upon a little Flax; and cram the place where you did let him bloud hard with Tow, to the intent it may be ſurely ſtopt. Then fill both his feet with Hogs greaſe, and bran fryed together in a ſtopping pan, ſo hot as is poſſible. And upon the ſtopping clap a piece of leather, or elſe two ſplents to keep the ſtopping. And immediately after this, take two Egges, beat them in a diſh, and put thereto Bole Armony, and Bean-flowre ſo much as will thicken the ſame, and mingle them well together, and make thereof two plaiſters, ſuch as may cloſe each foot round about, ſomewhat above the cronet, and binde it faſt with a liſt or roller, that it may not fall away, nor be removed for the ſpace of three days, but let the ſole be cleanſed, and new ſtopped every day once, and the cronets to be removed every two days, continuing ſo to do untill it be whole. During which time let him reſt unwalked, for fear of looſening his hoofs. But if you ſee that he begin to amend, you may walk him fair and ſoftly once a day upon ſome ſoft ground, to exerciſe his legs and feet; and let him not eat much, nor drink cold water. But if this foundering break out above the hoof, which you ſhall perceive by the looſeneſs of the coffin, above by the cronet; then when you pare the ſole, you muſt take all the fore-part of the ſole clean away, leaving the heels whole, to the intent the humors may have the freer paſſage downward, and then ſtop him, and dreſs him about the cronet as is before ſaid.

Of Foundring.

Of all other ſorances, foundering is ſooneſt got, and hardlyeſt cured: yet if it may be perceived in twenty four hours, and taken in hand by this means hereafter preſcribed, it ſhall be cured in other twenty and four hours: notwithſtanding, the ſame receit hath cured a Horſe that hath been foundered a year and more, but then it was longer in bringing it to paſs. Foundering cometh when a Horſe is heated, being in his greaſe and very fat, and taketh thereon a ſudden cold which ſtriketh down into his legs, and taketh away the uſe and feeling thereof. The ſign to know it is, the Horſe

Markham.

Horſe cannot go, but will ſtand cripling with all his four legs together; if you offer to turn him, he will couch his buttocks to the ground, and ſome Horſes have I ſeen ſit on their buttocks to feed.

The cure is thus: Let him bloud of his two breaſt veins, of his two ſhackle veins, and of his two veins above the cronets of his hinder hoofs; if the veins will bleed, take from them three pintes at leaſt; if they will not bleed, then open his neck vein, and take ſo much from thence. Save the blood, and let one ſtand by and ſtir it as he bleeds, leſt it grow into lumps; when he hath done bleeding, take as much Wheat flowre as will thicken the blood, the whites of twenty Egges, and three or four yolks; then take a good quantity of *Bolearminack*, and a pinte of ſtrong Vinegar, incorporate all theſe well together, and withal charge his back, neck, head, and ears; then take two long rags of cloth and dip in the ſame charge, and withal garter him ſo ſtrait as may be above both his knees of his forelegs; then let his keeper take him out to ſome ſtony cauſie, or high-way paved with ſtone, and there one following him with a cudgel, let him trot up and down for the ſpace of an hour, or two, or more: that done, ſet him up and give him ſome meat; and for his drink, let him have a warm maſh: ſome three or four hours after this, take off his garters, and ſet him in ſome pond of water up to the mid-ſide, and ſo let him ſtand for two hours, then take him out and ſet him up; the next day pull off his ſhooes, and pare his feet very thin, and let him blood both of his heels and toes; then ſet on his ſhooes again, and ~~ſtop~~ them with Hogs greaſe and bran boiling hot, and ſplint them up, and ſo turn him out to run, and he ſhall be ſound.

Of the ſplent as well in the inſide or outſide of the knee, as other where in the Legs.

Blundevile.

THis ſorance to any mans feeling, is a very griſtle, ſometime as big as a Walnut, and ſometime no more then a Haſel-nut, which is called of the *Italians*, *Spinella*, and it cometh, as *Laurentius Ruſſius* ſaith, by travelling the Horſe too young, or by oppreſſing him with heavie burthens offending his tender ſinews, and ſo cauſeth him to halt. It is eaſie to know, becauſe it is apparent to the eye, and if you pinch it with your thumb and finger, the Horſe will ſhrink up his leg.

The cure whereof, according to *Martin*, is in this ſort: Waſh it well in warm water, and ſhave off the hair, and lightly ſcarifie all the ſore places with the point of a raſor, ſo as the blood may iſſue forth. Then take of Cantharides half a ſpoonful, and of Euforbium as much, beaten into fine powder, and mingle them together with a ſpoonful of Oyl-de-bay, and then melt them in a little pan, ſtirring them well together, ſo as that they may not boil over, and being ſo boiled hot, take two or three feathers, and anoint all the ſore place therewith. That done, let not the Horſe ſtir from the place where you ſo dreſſe him for one hour after, to the intent he ſhake not off the ointment. Then carry him fair and ſoftly into the ſtable, and tie him as he may not reach with his head beneath the manger, for otherwiſe he will covet to bite away the ſmarting and pricking medicine, which if it ſhould touch his lips, would quickly fetch off the skin. And alſo let him ſtand without litter all that day and night. The next day anoint the ſore place with freſh butter, continuing ſo to do every day once for the ſpace of nine dayes, for this ſhall allay the heat of the medicine, and cauſe both that, and the cruſt to fall away of it ſelf, and therewith either clean take away the ſplent, or at leaſt remove it out of the knee into the leg, and ſo much diminiſh it, as the Horſe ſhall go right up, and halt no more through occaſion thereof. *Laurentius Ruſſius* would have the ſplent to be cured by firing it longſt wiſe and overthwart. I have ſeen the ſplent to be clean taken away thus; firſt having clipt away the hair growing upon the hard place, you muſt beat it with a good big ſtick of Haſel almoſt a foot long, in which ſtick ſomewhat diſtant from the one end thereof would be ſet faſt a ſharp prick of a little bit of ſteel, to prick the ſore place therewith, once or twice to make the bloud iſſue out, never leaving to beat it firſt ſoftly, and then harder and harder until it waxeth ſoft in every place to the feeling, and to thruſt out the blood, partly with the ſtick, leaning on it with both your hands, and partly with your thumbs: that done, wind about the ſore place with a piece of double red woollen cloth, holding it ſo as it may lie cloſe thereunto; then ſear it upon the cloth with the flat ſide of your ſearing iron, made hot, and not red-hot, but ſo as it may not burn through the cloth; that done, take away the cloth, and lay upon the ſore a piece of Shoomakers wax, made like a little cake, ſo broad as is the ſore place, and then ſear that into his Legs with your ſearing iron, until the wax be throughly moulten, dryed, and ſunken into the ſore: that done, ſear another piece of wax in like manner into the ſore, until it be dryed up, and then you may travel your Horſe immediately upon it if you will, for he will not halt no more.

Of the Splent.

Markham.

A Splent is a ſorance of the leaſt moment, unleſſe it be on the knee, or elſe a through Splent, both which cannot be cured. A Splent is a ſpungy hard griſtle or bone, growing faſt on the inſide of the ſhin-bone of a Horſe, where a little making ſtark the ſinews compels a Horſe ſomewhat to ſtumble. The cures are divers, and thus they be; If the Splent be young, tender, and but new in breeding, then caſt the Horſe, and take a ſpoonful of that Oyl called *Petrolium*, and with that Oyl rub the Splent till you make it ſoft; then take a fleam, ſuch as you let a Horſe bloud withal, and ſtrike the Splent in two or three places, then with your two thumbs thruſt it hard, and you ſhall ſee cruſh't matter and bloud come out, which is the very Splent; then ſet him up and let him reſt, or run at graſſe for a week or more. Others for a young Splent do thus; Take a Haſell ſtick and cut it ſquare, and therewithal beat the Splent till it be ſoft, then take a blew cloth and lay upon the Splent, and take a Taylors preſſing Iron made hot and rub it up and down upon the cloth over the Splent, and it ſhall take it clean away. But if the Splent be old and great, and grown to the perfection of hardneſs, then you muſt caſt the Horſe, and with a ſharp knife ſlit down the Splent; then take *Cantharides* and *Euſorbium*, of each like quantity, and boyl them in Oyl-de-bay, and with that fill up the ſlit, and renew it for three dayes together, then take it away and anoint the place with Oyl-de-bay, Oyl of Roſes or Tar, until it be whole.

Of a Malander.

Blundevile.

A Malander is a kinde of Scab growing in the forme of lines, or ſtrokes, overthwart the bent of the knee, and hath long hairs with ſtubborn roots, like the briſtles of a Bore, which corrupteth and cankereth the fleſh, like the roots of a childes ſcabbed head: and if it be great, it will make the Horſe to go ſtiffe at the ſetting forth, and alſo to halt. This diſeaſe proceedeth ſometime of corrupt bloud, but moſt commonly for lack of clean keeping, and good rubbing. The cure, according to *Martin*, is thus; Firſt waſh it well with warm water, then ſhave both hair and ſcab clean away, leaving nothing but the bare fleſh, whereunto lay this Plaiſter: Take a ſpoonful of Sope, and as much of Lime, mingle them together, that it may be like paſte, and ſpread as much on a clout as will cover the ſore, and binde it faſt on with a liſt, renewing it every day once the ſpace of two or three dayes, and at the three dayes end, take away the Plaiſter and anoint the ſore with Oyl of Roſes made luke-warm, and that ſhall fetch away the cruſt-ſcurſe, bred by means of the Plaiſter, which being taken away, waſh the ſore place well every day once with his own ſtale, or elſe with mans urine, and then immediately ſtrow upon it the powder of burnt Oyſterſhels, continuing thus to do every day once until it be whole.

Another of the Malander.

Markham.

A Malander is a peeviſh ſorance, and cometh of ill keeping, it is on the fore-legs, juſt on the inſide, at the bending of the knee, it will make a Horſe go ſtark, and ſtumble much. The cure is in this ſort; Caſt the Horſe, and with ſome inſtrument pluck off the dry ſcab that will ſtick thereon, and rub it till it bleed, then take and bind it thereto for three days, in which ſpace you ſhall ſee a white asker on the ſore, then take that off and anoint it with Oyl of Roſes or freſh Butter until it be throughly cured.

Of an upper Attaint or over-reach upon the back ſinew of the ſhanke, ſomewhat above the joynt.

THe *Italians* call this ſorance *Attincto*, which is a painful ſwelling of the maſter ſinew, by means that the Horſe doth ſometimes over-reach, and ſtrike that ſinew with the toe of his hinder-foot, which cauſeth him to halt. The ſignes be apparent by the ſwelling of the place, and by the Horſes halting. The cure, according to *Martin*, is thus; Waſh the place with warm water, and ſhave all the hair ſo far as the ſwelling goeth, and ſcarifie every part of the ſore place lightly with the point of a Raſor, that the bloud may iſſue forth. Then take of *Cantharides* and of *Euſorbium*, of each half an ounce, mingle them together with half a quartern of Sope, and with a ſlice ſpread ſome of this Ointment over all the ſore, ſuffering him to reſt there as you dreſſe him for one half hour after, and then you may carry him into the ſtable, and there let him ſtand without litter, and tyed as hath been ſaid before in the Chapter of the Spleen, and the next day dreſſe him with the ſame Ointment once again, even as you did before. And the third day anoint the place with freſh Butter, continuing ſo to do the ſpace of nine dayes, and at the nine dayes end, make him this bath; Take of Mallowes three handfuls, a Roſe-cake, of Sage a handful; boyl them together in a ſufficient quantity of water. And when the Mallowes be ſoft, put in half a pound of Butter, and half a pinte of Sallet Oyle; and then being ſomewhat warm, waſh the ſore place therewith every day once, the ſpace of three or four dayes.

Of a Nether taint.

Blundevile.

THis is a little bladder full of jelly, much like unto a Wind-gal, not apparent to the eye, but to the feeling, growing in the midſt of the paſtern, ſomewhat above the fruſh. It cometh by a ſtrain, or elſe by ſome wrench, or by any other over-reach, and maketh the Horſe to halt. The ſignes be theſe; The neather-joynt toward the fewter-lock will be hot in feeling, and ſomewhat ſwollen. The cure, according to *Martin*, is in this ſort; Tie him above the joynt with a liſt ſomewhat hard, and that will cauſe the bladder to appear to the eye. Then lance it with a ſharp pointed knife, and thruſt out all the jelly. That done, lay unto it the white of an Egge, and a little Salt beaten together, and laid upon flax or tow, and bind it faſt unto the ſore, renewing it once a day the ſpace of four or five dayes, during which time let him reſt, and then you may boldly labour him.

Of an Attaint.

Markham.

AN Attaint is a grief that cometh by an over-reach, as clapping one leg upon another, or by ſome other Horſes treading upon his heels. The cure is; Take a ſharp knife and cut out the over-reach, that is, if it be never ſo deep like a hole, cut it plain and ſmooth, how broad ſo ever you make it, then waſh it with Beer and Salt, and lay to it Hogs greaſe, Wax, Turpentine, and Roſen, of each like quantity, boyled and mingled together, and this will in few dayes heal him, be it never ſo ſore.

Of an over-reach upon the heel.

THis is a cut, ſo as the skin hangs down at the heel, made with the toe of the hinder foot, and is apparent to the eye, and it will cauſe the Horſe ſomewhat to halt. The cure whereof, according to *Martin*, is thus; Cut away the skin that hangeth down, and bind a little flax dipt in the white of an Egge mingled with a little Bole-armony, renewing it every day once the ſpace of three or four days, and that will heal it.

Of falſe quarters.

THis is a rift ſometime in the outſide, but moſt commonly in the inſide of the hoof, becauſe the inſide is ever the weaker part, which ſides are commonly called quarters, and thereof this ſorance taketh his name, and is called a falſe quarter; that is to ſay, a craſed or unſound quarter, which name indeed is borrowed of the *Italians*, calling it in their tongue, *Falſo quarto*. It cometh by evill ſhooing, and partly by evill paring. The ſignes be theſe: The Horſe will for the moſt part halt, and the rift will bleed, and is apparent to the eye. The cure, according to *Martin*, is thus; If the Horſe halt, then pull off the ſhooe, and cut ſo much away on that ſide of the ſhooe where the grief is, as the ſhooe being immediately put on again, the rift may be uncovered. Then open the rift with a Roſenet or drawer, and fill the rift with a roll of Toe dipt in Turpentine, Wax, and Sheeps ſewet molten, renewing it every day once until it be whole. And the rift being cloſed in the top, draw him betwixt the hair and the hoof with a hot Iron overthwart that place, to the intent that the hoof may ſhoot all whole downward, and when the Horſe goeth upright, ride him with no other ſhooe, until his hoof be throughly hardned again.

Of halting behind, and where the grief is.

Blundevile.

IF a Horſe halt behind, the grief muſt either be in the hip, in the ſtifle, in the hough, in the ham, in the leg, in the neather joynt, paſtern or foot. If he halt in the hip of a new hurt, the Horſe will go ſideling, and not follow ſo well with that leg as with the other; but if it be old hurt, the ſore hip will ſhrink and be lower then the other. And is beſt ſeen, when he goeth up a hill, or upon the edge of ſome bank, ſo as the worſt leg may go on the higher ſide, for then he will halt ſo much more, becauſe it is painful unto him to go ſo unevenly wrinching his leg. If the grief be in the ſtifle, then the Horſe in his going will caſt the ſtifle joynt outward, and the bone on the inſide will be far bigger then the other. If the grief be in the hough, then it is by means of ſome Spaven, or ſome other hurt apparent to the eye. And the like may be ſaid of the ham, wherein may be ſeen the Selander, or ſuch like apparent ſorance, cauſing the Horſe to halt. If the grief be either in the leg, paſtern or foot, then you ſhall finde it by ſuch ſignes as have been taught you before. And therefore let us now ſpeak of thoſe ſorances that are properly incident to the hinder legs.

Of the String-halt.

Markham.

THe String-halt is a diſeaſe that maketh a Horſe twitch up his leg ſuddenly, and ſo halt much, it cometh ſometimes naturally, and ſometimes caſually, by means of ſome great cold whereby the ſinews are ſtrained: the beſt cure thereof, is to dig a pit in ſome dunghil, as deep as the Horſe is high, and ſet the Horſe in, and cover him with warm dung, and ſo let him ſtand the ſpace of two hours, then take him out and make him clean, and then bathe him all over with Train-oyl made warm, and it will help him.

Of a Horſe that is hipped, or hurt in the hips.

THe Horſe is ſaid to be hipt, when the hip-bone is removed out of his right place, which grief is called of the *Italians*, *Mal del ancha.* It cometh moſt commonly by ſome great ſtripe or ſtrain, ſlipping, ſliding or falling. The ſignes be theſe: The Horſe will halt, and in his going he will go ſideling, and the ſore hip will fall lower then the other, and the fleſh in proceſſe of time will conſume clean away. And if it be ſuffered to run ſo long, it will never be reſtored unto his priſtine eſtate. The beſt way, as ***Martin*** ſaith, to make him go upright, is to charge his hip and back with Pitch and Roſen molten together, and laid on warm, and then ſome flocks of his own colour to be clapped upon the ſame, and ſo let him run to graſſe untill he go upright. But the ſore hip will never riſe again ſo high as the other. If the Horſe be not hipped, but only hurt in the hip, and that newly, then firſt take of the Oyl de-bay, of *Dialthea*, of Nerval, of Swines greaſe, melt them all together, ſtirring them continually until they be throughly mingled together, and anoint the ſore place againſt the hair with this Ointment every day once, the ſpace of a fortnight, and make the Ointment to ſink well into the fleſh, by holding a hot broad bar over the place anointed, weaving your hand to and fro, until the Ointment be entred into the skin. And if at the fortnights end, you ſee that the Horſe amendeth no whit for this, then ſlit a hole downward in his skin, and an inch beneath the hip-bone, making the hole ſo wide, as you may eaſily thruſt in a rowel with your finger, and then with a little broad ſlice or iron, looſen the skin from the fleſh above the bone, and round about the ſame, ſo broad as the rowel may lie flat and plain betwixt the skin and the fleſh, which rowel would be made of ſoft Calves Leather, with a hole in the midſt like a ring, having a threed tied unto it, to pull it out when you would cleanſe the hole, and if the rowel be rolled about with flax faſt tyed on, and anointed with the ointment under written, it will draw ſo much the more; and thruſt in the rowel firſt double, and then ſpread it abroad with your finger. That done, tent it with a good long tent of flax or tow dipt in a little Turpentine and Hogs greaſe molten together and made warm, and cleanſe the hole and the rowel every day once, and alſo renew the tent every day for the ſpace of a fortnight. And before you dreſſe him, cauſe him every day to be led up and down a foot pace a quarter of an hour, to make the humors come down, and at the fortnights end pull out the rowel, and heal up the wound with the ſame ſalve, making the tent every day leſſer and leſſer until it be whole. And ſo ſoon as it is whole, draw with a hot Iron croſſe lines, of eight or nine inches long, right over the hip-bone, ſo as the rowelled place may be in the very midſt thereof, and burn him no deeper, but ſo as the skin may look yellow, and then charge all that place, and over all his buttocks with this charge: Take of Pitch a pound, of Roſen half a pound, of Tar half a pinte; boyl them together, and then being good and warm, ſpread it on with a clout tyed in a riven ſtick, and then clap on a few flocks of the Horſes colour. And if it be in Summer, let the Horſe run to graſſe a while, for the more he travelleth at his own will, the better it is for him.

Of ſtifling, and hurts in the ſtifle.

THe Horſe is ſaid to be ſtifled, when the ſtifling bone is removed from the place; but if it be not removed nor looſened, and yet the Horſe halteth by means of ſome grief there, then we ſay that the Horſe is hurt in the ſtifle, and not ſtifled. The ſtifle cometh by means of ſome blow, or ſome great ſtrain, ſlipping or ſliding. The ſignes be theſe; If he be ſtifled, the one bone will ſtick out farther then the other, and is apparent to the eye. ***Martin*** would have you to cure the ſtifle in all points like unto the ſhoulder-pight, ſaving that the pins need not be ſo long, becauſe the ſtifling place is not ſo broad as the ſhoulder, and ſtanding in the ſtable, let him have a paſtern with a Ring on his fore-leg, and thereunto faſten a cord, which cord muſt go about his neck, and let it be ſo much ſtrained, as it may bring his ſore leg more forward then the other to keep the bone from ſtarting out. But if the Horſe be but hurt in the ſtifle with ſome ſtripe or ſtrain, then the bone will not ſtand out, but perhaps the place may be ſwollen. The cure, according to ***Martin***, is thus; Firſt anoint the place with the Ointment mentioned before, every day once the ſpace of a fortnight; and if the Horſe amend not with this, then rowel him with a hearen rowel, or elſe with a quill, and let the neather hole be ſomewhat before the ſore place, and cleanſe the hole every day, by turning the rowel, continuing ſtill to anoint the place with the Ointment aforeſaid, and that will make him whole.

Of foundering behind.

THis haps moſt commonly when a Horſe is very fat, and hath his greaſe moulten within him, which is ſoon done with every little heat. You ſhall perceive it by his going, for he will be afraid to ſet his hinder-feet to the ground, and he will be ſo weak behind, as he will ſtand quivering and ſhaking, and covet alwayes to lie down. The cure, according to *Martin*, is thus: Firſt garter him about the houghes, and then force him to go a while to put him in a heat, and being ſomewhat warm, let him bloud in the thigh veins, reſerving of that bloud a pottle, to make him a charge in this ſort; Put unto that bloud, of Wheat-flower and of Bean-flower, of each a quarter of a peck, of Bole-armony one pound, of *Sanguis Draconis* two ounces, ſix Egges, ſhels and all, of Turpentine half a pound, of Vinegar a quart; mingle all theſe things together, and therewith charge both his hinder-legs, his reins, and flanks, all againſt the hair. And if the Horſe cannot dung, let him be raked, and give him this glyſter; Take of Mallowes three handfuls, and boyl them well in fair Water from a pottle to a quart; then ſtrain it, and put thereunto half a pound of Butter, and of Sallet Oyl a quarter of a pinte, and having emptied his belly, give him alſo this drink to comfort him; Take of Malmeſie a quart, and put thereunto a little Cinamon, Mace, and Pepper, beaten into fine powder, and of Oyl a quarter of a pinte, and give the Horſe to drink of that luke-warm with a horn. That done, let him be walked up and down a good while together if he be able to go; if not, then tie him up to the rack, and let him be hanged with Canvas and Ropes, ſo as he may ſtand upon the ground with his feet: For the leſſe he lyeth, the better; and pare his hinder-feet thin, untill the dew come out, and tacking on the ſhooes again, ſtop the hoofs with Bran and Hogs greaſe boyled together, and let both his feet, having this geer in it, be wrapped up in a cloth even to his paſterns, and there tie the clout faſt. Let his diet be thin, and let him drink no cold water, and give him in Winter wet hay, and in Summer graſſe.

Of the dry Spaven.

Blundevile. THe dry Spaven, called of the *Italians*, *Spavano*, or *Sparavagno*; is a great hard knob as big as a Walnut growing in the inſide of the hough, hard under the joynt, nigh unto the maſter vein, and cauſeth the Horſe to halt, which ſorance cometh by kinde, becauſe the Horſes Parents perhaps had the like diſeaſe at the time of his generation; and ſometime by extreme labor and heat diſſolving humors which do deſcend through the maſter vein, continually feeding that place with evil nutriment, and cauſeth that place to ſwell. Which ſwelling in continuance of time becometh ſo hard as a bone, and therefore is called of ſome the Bone Spaven. It needeth no ſignes or tokens to know it, becauſe it is very much apparent to the eye, and therefore moſt Farriers do take it to be incurable.

Notwithſtanding, *Martin* ſaith, that it may be made leſſe with theſe remedies here following; Waſh it with warm water, and ſhave off the hair ſo far as the ſwelling extendeth, and ſcarifie the place ſo as it may bleed; then take of *Cantharides* one dozen, of *Euforbium* half a ſpoonful, break them into powder, and boyl them together with a little Oyl-de-bay, and with two or three feathers bound together, put it boyling hot upon the ſore, and let his tail be tyed up for wiping away the medicine; and then within half an hour after, ſet him up in the ſtable, and tie him ſo as he may not lie down all the night for fear of rubbing off the medicine, and the next day anoint it with freſh butter, continuing thus to do every day once the ſpace of five or ſix days, and when the hair is grown again, draw the ſore place with a hot Iron; then take another hot ſharp Iron like a Bodkin, ſomewhat bowing at the point, and thruſt it in at the neather end of the middle line, and ſo upward betwixt the ſkin and the fleſh to the compaſſe of an inch and a half. And then tent it with a little Turpentine and Hogs greaſe moulten together and made warm, renewing it every day once the ſpace of nine dayes. But remember firſt immediately after his burning to take up the maſter vein, ſuffering him to bleed a little from above, and tie up the upper end of the vein, and leave the neather end open, to the intent that he may bleed from beneath until it ceaſe it ſelf, and that ſhall diminiſh the Spaven, or elſe nothing will do it.

Of the Spaven, both bone and bloud.

Markham. DOubtleſs a Spaven is an evill ſorance, and cauſeth a Horſe to halt principally in the beginning of his grief; it appeareth on the hinder-legs within, and againſt the joynt, and it will be a little ſwoln; and ſome Horſes have a thorough Spaven, which appeareth both within and without. Of the Spaven there are two kindes, the one hard, and the other ſoft; that is, a Bone-Spaven, and a Bloud-Spaven: for the Bone-Spaven, I hold it hard to cure, and therefore the leſſe neceſſary to be dealt withal, except very great occaſion urge; and thus it may be holpen.

Caſt the Horſe, and with a hot Iron ſlit the fleſh that covereth the Spaven, and then lay upon the Spaven, *Cantharides* and *Euforbium* boyled together in Oyl-de-bay, and anoint his legs round about, either with the Oyl of Roſes, and with *Unguentum album camphiratum*. Dreſſe him thus for three dayes together, then afterward take it away, and for three dayes more lay unto it only upon flax and unſleck't Lime, then afterward dreſſe it with Tar until it be whole.

The *Cantharides* and *Euforbium*, will eat and kill the ſpungy bone, the Lime will bring it clean away, and the Tar will ſuck out the poiſon, and heal all up ſound: but this cure is dangerous, for if the inciſion be done by an unskilful man, and he either by ignorance, or by the ſwarving of his hand, burn in twain the great vein that runs croſſe the Spaven, then the Horſe is ſpoiled.

Now for the bloud Spaven that is eaſily helpt, for I have known divers which have been but newly beginning, helpt only by taking up the Spaven vein, and letting it bleed well beneath, and then ſtop the wound with Sage and Salt, but if it be a great bloud Spaven, then with a ſharp knife, cut it as you burnt the bone Spaven, and take the Spaven away, then heal it up with Hogs greaſe and Turpentine only.

Of the wet Spaven, or through Spaven.

THis is a ſoft ſwelling growing on both ſides of the hough, and ſeems to go clean through the hough, and therefore may be called a through Spaven. But for the moſt part the ſwelling is on the inſide, becauſe it is continually fed of the maſter vein, and is greater then the ſwelling on the outſide. The *Italians* call this ſorance *Laierda*, or *Gierdone*, which ſeemeth to come of a more fluxible humour, and not ſo viſcous or ſlimy as the other Spaven doth, and therefore this waxeth not ſo hard, nor groweth to the nature of a bone as the other doth, and this is more curable then the other. It needs no ſignes, becauſe it is apparent to the eye, and eaſie to know by the deſcription thereof before made. The cure, according to *Martin*, is thus; Firſt waſh, ſhave, and ſcarifie the place as before; then take of *Cantharides* half an ounce, of *Euforbium* an ounce broken to powder, and Oyl-de-bay one ounce, mingle them well together cold, without boyling them, and dreſſe the ſore therewith two dayes together, and every day after, until the hair be grown again anoint it with freſh Butter. Then fire him both without and within, as before, without tenting him, and immediately take up the maſter vein, as before; and then for the ſpace of nine dayes, anoint him every day once with Butter, until the fired place begin to ſcale, and then waſh it with this bath; Take of Mallowes three handfuls, of Sage one handful, and as much of red Nettles, boyl them in water until they be ſoft, and put thereunto a little freſh Butter, and bathe the place every day once for the ſpace of three or four dayes, and until the burning be whole, let the Horſe come in no wet.

Of the Selander.

THis is a kinde of Scab breeding in the ham, which is the bent of the hough, and is like in all points to the Malander, proceeding of like cauſes, and requireth like cure, and therefore reſort to the Malander.

Of the hough-bony, or hard knob.

THis is a round ſwelling bony, like a *Paris* ball, growing upon the tip or elbow of the hough, and therefore I thought good to call it the hough-bony. This ſorance cometh of ſome ſtripe or bruiſe, and as *Martin* ſaith, is cured thus; Take a round hot iron ſomewhat ſharp at the end like a good big bodkin, and let it be ſomewhat bending at the point; then holing the ſore with your left hand, pulling it ſomewhat from the ſinews, pierce it with the iron, being firſt made red-hot, thruſting it beneath in the bottom, and ſo upward into the belly, to the intent that the ſame jelly may iſſue downward out at the hole, and having thruſt out all the jelly, tent the hole with a tent of Flax dipt in Turpentine, and Hogs greaſe molten together, and alſo anoint the outſide with Hogs greaſe made warm, renewing it every day once until the hole be ready to ſhut up, making the tent every day leſſer and leſſer; to the intent it may heal up.

Of the Curb.

THis is a long ſwelling beneath the Elbow of the hough, in the great ſinew behind, and cauſeth the Horſe to halt, after that he hath been a while laboured, and thereby ſomewhat heated. For the more the ſinew is ſtrained, the greater grief, which again by his reſt is eaſed. This cometh by bearing ſome great weight when the Horſe is young; or elſe by ſome ſtrain or wrinch, whereby the tender ſinews are grieved, or rather bowed (as *Ruſſius* ſaith) whereof it is called in *Italian*, *Curba a Curvando*, that is to ſay of bowing, for anguiſh whereof it doth ſwell, which ſwelling is apparent to the eye, and maketh the Leg to ſhew bigger then the other. The cure, according to *Martin*, is thus; Take of Wine-lees a pinte, a porringer full of Wheat flowre, of Cumin half an ounce, and ſtir them well together, and being made warm, charge the ſore three or four *Blundevile.*

dayes, and when the ſmelling is almoſt gone, then draw it with a hot iron, and cover the burning with Pitch and Roſen molten together, and lay it on good and warm, and clap thereon ſome flocks of his own colour, or ſo nigh as may be gotten, and remove them not, until they fall away of themſelves. And for the ſpace of nine dayes let the Horſe reſt, and come in no wet.

Another of the Curb.

Markham. A Curb is a ſorance that maketh a Horſe to halt much, and it appears upon his hinder legs, ſtraight behind upon the cumbrel place, and a little beneath the Spaven, and it will be ſwoln as big as half a Walnut. The cure followeth; Take a ſmall cord and bind his legs hard above it, and beneath it, then beat it, and rub it with a heavy ſtick till it grow ſoft, then with a fleam ſtrike it in three or four places, and with your thumbs cruſh out the filthy bruiſed matter, then looſe the cord, and anoint it with Butter uutil it be whole.

Of the Pains.

Blundevile. THis is a kind of Scab, called in *Italian*, *Grappe*, which is full of fretting matteriſh water, and it breedeth in the paſterns for lack of clean keeping and good rubbing after the Horſe hath been journyed, by means whereof, the ſand and dirt remaineth in the hair, fretteth the skin and fleſh, and ſo breedeth a Scab. And therefore thoſe Horſes that have long hair, and are rough about the feet, are ſooneſt troubled with this diſeaſe, if they be not the cleanlier kept. The ſignes be theſe; His legs will be ſwollen and hot, and water will iſſue out of the Scab, which water is hot and fretting, as it will ſcald off the hair and breed Scabs, ſo far as it goeth. The cure, according to *Martin*, is thus; Firſt waſh well all the paſterns with Beer and Butter warmed together, and his legs being ſomewhat dryed with a cloth: clip away all the hair, ſaving the fewter locks. Then take of Turpentine, of Hogs greaſe, of Hony, of each like quantity, mingle them together in a pot, and put thereto a little Bole-armony, the yolks of two Egges, and as much Wheat flowre as will thicken the things aforeſaid, and make it plaiſter like, and for that cauſe it had need to be very well wrought and ſtirred together. Then with a ſlice ſtrike ſome of the plaiſter upon ſuch a piece of linnen cloth as will ſerve to go round about the paſtern, and bind it faſt on with a roller, renewing it once a day until it be whole, and let not the Horſe be travelled nor ſtand wet.

Another of the Pains.

Markham. PAins is a ſorance that cometh of hot ill humors of ill keeping; it appeareth in the Fetlocks, and will ſwell in the Winter time, and will ſend forth a ſharp water; the hair will ſtare: and the cure is thus; Waſh them every day twice or thrice with gunpowder and Vinegar, and they will be whole iu one week at the moſt.

Of Mules or Kibed heels, called of the Italians, Mule.

THis is a kind of Scab breeding behind, ſomewhat above the neather joynt, growing overthwart the fewter lock, which cometh moſt commonly for being bred in cold ground, or elſe for lack of good dreſſing, after that he hath been laboured in foul mire and dirty wayes, which durt lying ſtill in his legs, fretteth the skin, and maketh ſcabby rifts, which are ſoon bred, but not ſo ſoon gotten away. The anguiſh whereof maketh his legs ſomewhat to ſwell, and ſpecially in Winter and Spring time, and then the Horſe goeth very ſtifly, and with great pain. The ſorance is apparent to the eye, and is cured, according to *Martin*, in this ſort; Tcke a piece of linnen cloth, and with the ſalve recited in the laſt Chapter, make ſuch a plaiſter as may cover all the ſore place, and bind it faſt on that it may not fall off, renewing it every day once until the ſore leave running, and beginneth to wax dry, then waſh it every day once with ſtrong water, until it be clean dryed up, but if this ſorance be but in breeding, and there is no raw fleſh, then it ſhall ſuffice to anoint it with Sope two or three dayes, and at the three dayes end, to waſh them with a little Beef broath or diſh water.

Of Frettiſhing.

Blundevile. FRettiſhing is a ſorance that cometh of riding a Horſe till he ſweat, and then to ſet him up without litter, where he taketh ſuddenly cold in his feet, and chiefly before; it appears under the heel in the heart of the foot; for it will grow dun, and wax white and crumbly like a Pomys, and also in time it will ſhow, by the wrinkles on his hoof, and the hoof will grow thick and brickle, he will not be able to tread, on ſtones or hard ground, nor well to travel but ſtumble and fall. The cure is thus; Take and pare his feet ſo thin as may be, then roſt two or three Egges in the Embers very hard, and being extreme hot taken out of fire, cruſh them in his foot, and then clap a piece of Leather thereon, and ſplint it that the Egges may not fall out, and ſo let him run and he will be ſound.

Of ſorances or griefs that be common to all Fore-feet.

HItherto we have declared unto you the cauſes, ſignes and cure of all ſuch griefs as are properly incident, either to the fore-legs, or hinder-legs: now therefore we ſpeak of thoſe griefs that be common to them both, and firſt of Windgals.

Of Windgals.

Blundevile.

THe Windgal called of the *Italians*, *Galla*; is a bladder full of corrupt jelly, whereof ſome be great, and ſome be ſmall, and do grow on each ſide of the joynt, and is ſo painful, and eſpecially in Summer ſeaſon, when the weather is hot and the ways hard, as the Horſe is not able to travel, but halteth down right. They come for the moſt part through extreme labour and heat, whereby the humors being diſſolved, do flow and reſort into the hollow places about the neather joynts, and there be congealed and covered with a thin skin like a bladder. They be apparent to the eye, and therefore need no other ſignes to know them. The cure whereof according to *Martin* is thus: Waſh them with water, and ſhave off the hair, ſcarifie them with the point of a raſor, and dreſs them with Cantharides in the ſelf ſame manner as the ſplent in the knee was taught before, and anoint them afterward with Butter untill the skin be whole. And if this will not heal it, then draw them with a hot Iron like a ragged ſtaffe. That done, ſlit the middle line which paſſeth right down through the windgal with a ſharp knife, beginning beneath, and ſo upward the length of half an inch, to the intent you may thruſt the jelly out at that hole; then lay unto it a little Pitch and Rozen molten together, and made luke-warm, and put a few flocks on it, and that will heal him. And you may dry up the Windgal in ſuch manner as here followeth: Firſt chop off the hair ſo far as the Windgal extendeth, and having ſtricken it with a fleam, thruſt out the jelly with your finger. Then take a piece of red wollen cloth and clap it to the place, and with a hot broad ſearing Iron ſear it, ſo as the Iron may not burn through the cloth, which is done to dry up the humors.

Then having taken away the cloth, lay unto the place a piece of Shoomakers wax made like a flat cake, about the breadth of a teſtorn, and with your Iron not made over hot, ſtreek ſoftly upon it to and fro, untill the ſaid wax be throughly melted into the ſore. Whereupon lay a few flocks, and let him go. Which flocks will afterward fall away of their own accord.

Of Windgals.

Markham.

WIngals are eaſie to cure, they be little ſwellings like blebs or bladders, on either ſide the joynt next unto the fewter-locks, as well before as behinde, and they come through the occaſion of great travel, in hard, gravelly, or ſandy ways. The cure is: Take Pitch, Rozen, and Maſtick, of each like quantity, melt them together, and with a ſtick lay it round about the Horſes legs, and whileſt it is hot lay flocks thereon; the nature of this plaiſter, is never to come away whileſt there is any Windgal on the Horſes legs; but when they are dryed up, then it will fall away of it ſelf.

Of Wrinching the neather joynt.

THis cometh many times by treading awry in ſome Cart root or otherwiſe. The ſignes be theſe: The joynt will be ſwollen and ſore, and the Horſe will halt. The cure whereof according to *Martin* is thus: Take of *Dialthea* half a pound, and as much of Nerval; mingle them together, and anoint the ſore place therewith, chafing it well with both your hands, that the Ointment may enter, continuing ſo to do every day once, until the Ointment be all ſpent, and let the Horſe reſt. But if this will not prevail, then waſh it with warm water and ſhave away all the hair ſaving the fewter-lock. Scarifie it, and lay to it Cantharides, and heal it as you do each ſplent in the knee.

Of Enterfering.

BEcauſe Enterfering is to be holpen by ſhooing, we purpoſe not to ſpeak of it, untill we come to talk of the order of paring and ſhooing all manner of hoofs.

Another of Enterfering.

ENterfering is a grief that cometh ſometimes by ill ſhooing, and ſometimes naturally, when a Horſe trots ſo narrow that he hews one leg upon another, it appeareth both before and behinde, between the feet againſt the fet-locks, and there is no remedy but ſhooing him with ſhooes made thin and flat on the outſide, and narrow and thick within.

Of the Shakel-gall.

IF a Horſe be galled in the paſterns, with ſhakel, lock paſtern, or halter, anoint the ſore place with a little Honey and Verdigreaſe boyled together, untill it look red, which is a good Ointment for all gallings on the withers, and immediately ſtrow upon the Ointment, being firſt laid upon the leg, a little chopt flax or tow, and that will ſtick faſt, continuing ſo to do every day once untill it be whole.

Of hurts in the Legs, that cometh by caſting in the halter or collar.

Blundevile. IT chanceth many times, that a Horſe having ſome itch under his ears, is deſirous to ſcratch the ſame with his hinder-foot, which whileſt he reacheth to and fro, doth faſten in the collar or halter, wherewith the more that he ſtriveth the more he galleth his legs; and many times it chanceth for that he is tyed ſo long, by means whereof being laid, and the halter ſlack about his feet, riſing perhaps or turning he ſnarleth himſelf ſo as he is not able to get up, but hangeth either by the neck or legs, which ſometime are galled even to the hard bone.

Ruſſius calleth ſuch kind of galling *Capiſtratura*, which he was wont to heal with this Ointment here following, praiſing it to be excellent good for the cratches, or any ſcab, bruiſe, or wound: Take of Oyl Olive one ounce, of Turpentine two or three ounces; melt them together over the fire, and then put thereunto a little Wax, and work them well together, and anoint the ſore place therewith. *Martin* ſaith, it is good to anoint the ſore place with the white of an Egge and Sallet Oyl beaten together; and when it cometh to a ſcab, anoint it with Butter being molten, untill it look brown.

Of the Cratches, or Rats tails, called of the Italians, *Crepaccie.*

THis is a kinde of long ſcabby rifts growing right up and down in the hinder part, from the fewter-lock up to the curb, and cometh for lack of clean keeping, and is eaſily ſeen if you take up the Horſes foot, and lift up the hair. The cure according to *Martin* is thus: Take of Turpentine half a pound, of Honey a pinte, of Hogs greaſe a quartern, and three yolks of Egges, and of Bole-armony a quartern, beaten into fine powder, of Bean-flowre half a pinte; mingle all theſe well together, and make a ſalve thereof, and with your finger anoint all the ſore places, ſheading the hair as you go, to the intent you may the eaſier finde them, and alſo to make the ſalve enter into the skin, and let the Horſe come in no wet, untill he be whole.

Of the Scratches.

Markham. SCratches will cauſe a Horſe to halt ſore, and they come only by naughty keeping, and they appear in the paſterns under the Fet-locks; as if this skin were cut over-thwart, that a man may lay in a Wheat-ſtraw. The cure is thus: Binde unto them, (the hair being cut clean away) black Sope and Lime kned together, for three days, then lay that by, and anoint the place with Butter; and heal the ſore with Bores greaſe and Tar mixt well together.

Of the Ring-bone.

THis is a hard griſtle growing upon the cronet, and ſometime goeth round about the cronet, and is called in *Italian*, *Sopreſſo*. *Laurentius Ruſſius* ſaith, that it may grow in any other place of the leg; but then we call it not a Ring-bone, but a knot or knob. It cometh at the firſt either by ſome blow of another Horſe, or by ſtriking his one foot againſt ſome ſtub, or ſtone, or ſuch like caſualty. The pain whereof breedeth a viſcous and ſlimy humor, which reſorting to the bones, that are of their own nature cold and dry, waxeth hard, cleaveth to ſome bone, and in proceſs of time becometh a bone. The ſignes be theſe: The Horſe will halt, and the hard ſwelling is apparent to the eye, being higher then any place of the cronet. The cure according to *Martin* is thus: Firſt waſh it well with warm water, and ſhave away all the hair, ſo as the ſore place may be all diſcovered. Then ſcarifie it lightly with the point of a raſor, ſo as the bloud may iſſue forth. Then if the ſore be broad, take of *Euforbium* one ounce, of Cantharides half an ounce, broken into fine powder, and of Oyl-de-bay one ounce; and if the ſore be but little, the one half of this may ſerve: Boyl theſe things together, ſtirring them continually, leſt it run over; and with two or three feathers, lay it boiling hot unto the ſore, and let not the Horſe ſtir from that place for half an hour after, then carry him into the ſtable, both uſing and curing him for the ſpace of nine days, in ſuch order as hath been ſaid before in the chapter of the ſplent. But when the hair beginneth to grow again, then fire the ſore place with right lines from the paſtern down to the coffin of the hoof, and let the edge of the drawing Iron be as thick as the back of a meat-knife, and burn him ſo deep as the skin may look yellow: that done, cover the burning with Pitch and Rozen molten together, and clap thereon flocks of the Horſes own colour, or ſomewhat nigh the ſame, and about three days after lay again ſome of the laſt mentioned plaiſter, or Ointment; and alſo new flocks upon the old, and there let them remain, until they fall away of themſelves.

But if theſe Ring-bones, or knobs, breed in any other place, then in the Cronet, you ſhall cure them as is before ſaid, without firing them.

Of the Ring-bone.

Markham.

THe Ring-bone is an ill diſeaſe, and appeareth before on the foot above the hoof, as well before as behinde, and will be ſwoln three inches broad, and a quarter of an inch or more of height, and the hair will ſtare and wax thin, and will make a Horſe halt much. The cure is: Caſt the Horſe, and with an Iron made flat and thin, burn away that griſtle which annoys him; then take Wax, Turpentine, Rozen, Tar, and Hogs-greaſe, of each like quantity, mingle them together Plaiſter-wiſe, and with it cure the ſore: This Plaiſter will alſo cure any other wound or ulcer whatſoever.

Of the Crown-ſcab.

Blundevile.

THis is a kinde of filthy and ſtinking Scab, breeding round about the feet upon the Cronets, and is an elviſh and painful diſeaſe, called in *Italian, Criſaria*. It ſeemeth to come by means that the Horſe hath been bred in ſome cold wet ſoil, ſtriking corrupt humors up to his feet: and therefore the Horſe that hath this grief is worſe troubled in Winter then in Summer. The ſignes be theſe: The hair of the Cronets will be thin and ſtaring like briſtles, and the Cronets will be always mattering, and run on a water. The cure according to *Martin* is thus: Take of Sope, of Hogs-greaſe, of each half a pound, of Bole-armony a little, of Turpentine a quartern; and mingle them all together, and make a Plaiſter, and binde it faſt on, renewing it every day once, until it leave running, and then waſh it with ſtrong Vinegar, being luke-warm, every day once, until the ſore be clean dryed up, and let him come in no wet until it be whole.

Of hurts upon the Cronet croſsing one foot over another, which the Italians call Suprapoſte.

MArtin ſaith, waſh it well with white Wine, or with a little ſtale, and then lay unto it the white of an Egge, mingled with a little Chimny ſoot and Salt, and that will dry it up in three or four days, if it be renewed every day once.

Of the Quitter-bone.

THis is a hard round ſwelling upon the Cronet, betwixt the heel and the quarter, and groweth moſt commonly on the inſide of the foot, and is commonly called of the *Italians*, *Setula* or *Seta*. It cometh by means of gravel gathered underneath the ſhooe, which fretteth the heel, or elſe by the cloying or pricking of ſome nail evil driven, the anguiſh whereof looſeneth the griſtle, and ſo breedeth evil humors, whereof the Quitter-bone ſpringeth. The ſignes be theſe: The Horſe will halt, and the ſwelling is apparent to the eye, which in four or five days coming to a head, will break out with matter at a little deep hole like a *Fiſtula*. The cure according to *Martin* is thus: Firſt, burn about the quitter-bone with a hot Iron, in manner of half a circle, and then with the ſame Iron draw another right ſtrike through the midſt thereof. Then take of Arſenick the quantity of a Bean beaten into fine powder, and put it into the hole, thruſting it down to the bottom with a quill, and ſtop the mouth of the hole with a little tow, and binde it ſo faſt with a cloth, and cord, as the Horſe may not come at it with his mouth, and ſo let it reſt for that day. And the next day, if you ſee that the ſore looketh black within, then it is a ſigne that the Arſenick hath wrought well and done his part. Then to allay the burning thereof, tent the hole with flax dipt in Hogs-greaſe, and Turpentine, molten and mingled together, and cover the tent with a bolſter of Tow dipt alſo in the Ointment aforeſaid, continuing ſo to do every day once, until you have gotten out the core. Then ſhall you ſee whether the looſe griſtle in the bottom be uncovered or not; and if it be uncovered, then feel with your finger, or with a quill, whether you be nigh it or not. And if you be, then raiſe the griſtle with a little crooked inſtrument, and pull it clean out with a pair of ſmall nippers, meet for the pupoſe. That done, tent it again with a full tent dipt in the aforeſaid Ointment, to aſſwage the anguiſh of the laſt dreſſing, and ſtop it hard, to the intent that the hole may not ſhrink together, or cloſe up; and the next day take out the tent, and tent it anew with the Salve or Ointment taught in the Chapter of the Shakel-gall, renewing it every day once until it be whole, keeping always the mouth of the ſore as open as you may, to the intent that it heal not up too faſt; and let not the Horſe be in any wet, nor travel, until he be perfectly whole.

Of the Quitter-bone.

Markham.

QUitter-bone is a round hard ſwelling upon the Cronet of the hoof, betwixt the hoof and the quarter; and for the moſt part groweth on the inſide of the foot: the Original effect thereof is the fretting of gravel underneath the ſhooe, which bruiſeth the heel; or elſe by means of ſome ſtub, or the pricking of ſome nail, through the pain whereof the griſtle is looſened, breeding evil humors, which be indeed the ground of the Quitter-bone: it is to be known by the Horſes halting, and by the apparent ſwelling to the eye of that part, which in three or four days will grow unto a head and break, evacuating great abundance of filthy matter at a little hole. The cure is thus: Take a hot Iron, made in faſhion of a knife, and with it burn out the fleſh, in compaſs of a Moon, till you come to feel the griſtle, then burn it out too: Then take Verdigreaſe, freſh Butter, and Tar, molten together, and dip fine Tow therein, ſtop up the hole, then lay thereon a Sear-cloth of Deer-ſewet and Wax, and ſo let him reſt for the firſt day: the next day, take of *Mel roſatum*, Oyl of Roſes, Wax, and Turpentine, of each like quantity, infuſe them all on the fire together; and with the Salve dreſs the ſore morning and evening, till it be whole. But if you finde any proud fleſh to grow, then forget not to lay thereon ſome red Lead, or Verdigreaſe: and withall have an eſpecial regard, that the upper part of the wound heal not faſter then the bottom, for fear of Fiſtulating.

Of the Gravelling.

Blundevile.

THis is a fretting under the foot, moſt commonly in the inſide, and ſometime in the outſide, and ſometime in both ſides together of the heel. It cometh by means of little gravel ſtones getting betwixt the hoof, or calking, or ſpunge of the ſhooe, which by continual labour and treading of the Horſe, doth eat into the quick, and the rather, if his heel be ſoft and weak, or that the ſhooe do lie flat to his foot, ſo as the gravel being once gotten in, cannot get out. The ſignes be theſe: The Horſe will halt, and covet to tread all upon the toe, to favour his heel. The cure according to *Martin* is thus: Firſt pare the hoof, and get out the gravel with a cornet, or drawer, leaving none behinde, for if you do, it will breed to a Quitter-bone. That done, ſtop him with Turpentine and Hogs-greaſe molten together, and laid on with tow or flax, and then clap on the ſhooe to keep in the ſtopping, renewing it every day once until it be whole. And ſuffer the Horſe to come in no wet, until he be throughly whole. If a gravelling be not well ſtopt to keep down the fleſh, it will riſe higher then the hoof; and not only require more buſineſs in bolſtering it, but alſo put the Horſe to more pain.

Of Gravelling.

Markham.

GRavelling is a hurt will make a Horſe to halt, and cometh of gravel and little ſtones, that goeth between the ſhooe and the heart of the foot. The cure is: Take off the ſhooe, and let him be well pared; then ſet on the ſhooe again, and ſtop it with Pitch, Rozen, and Tallow, and this ſhall help.

Of Surbating.

THis is a beating of the hoof againſt the ground, called of the *Italians*, *Sobatitura*; it cometh ſometime by means of evil ſhooing, lying too flat to his foot; or by going long bare-foot, and ſometime by the hardneſs of the ground, and high lifting of the Horſe. And thoſe Horſes that be flat-footed, the coffins whereof are tender and weak, are moſt commonly ſubject to this ſorance. The ſignes be theſe: the Horſe will halt on both his fore-legs, and go ſtiffely and creeping, as though he were half foundered. The cure according to *Martin* is thus: Take off his ſhooes, pare him as little as may be; and if the ſhooes be not eaſie, that is to ſay, long, large, and hollow enough, then make them ſo, and then tack them on again with four or five nails. That done, ſtop his feet with Bran, and Hogs-greaſe boyled together, ſo hot as may be; and alſo cover all the coffin round about with the ſame, binding all in together with a cloth, and a liſt faſtened about the joynt, renewing it every day once, until it be whole, and give the Horſe during that while warm water; and let him ſtand dry and warm, and not be travelled until he be whole.

Of a Prick in the ſole of the Foot, by treading on a nail, or any other ſharp thing that doth enter into the Foot.

Blundevile.

THe ſignes be theſe: If a man be on his back when he treadeth on any ſuch thing, he ſhall feel that the Horſe will lift up his foot, and covet to ſtand ſtill to have help. And if it chance at any other time, the halting of the Horſe, and the hurt it ſelf will ſhew. The cure according to *Martin* is thus: Pull off the ſhooe, and pare the foot; and with a drawer uncover the hole, making the mouth ſo broad as a two penny piece, then tack on the ſhooe again. That done, ſtop it, by pouring into the hole Turpentine and Hogs-greaſe molten together, and lay ſome flax, or tow upon it; and then ſtop all the Horſes foot with Horſe-dung, or rather with Cow-dung, if you can get it; and ſplent it either with ſticks, or elſe with an old ſhooe-ſole, ſo as the ſtopping may abide in, renewing it every day once until it be whole, and let the Horſe come in no wet. If this be not well cured, or looked to in time, it will cauſe the hoof to break above, and to looſen round about, and perhaps to fall clean away. But if you ſee that it begins to break above, then make a greater iſſue beneath by opening the hole wider, and taking more of the ſole away, that the fleſh may have the more liberty. Then take of Bole-armony half a quartern, Bean-flowre, and two Egges. Beat them, and mingle them well together, and make a plaiſter thereof upon Tow, and lay it round about the Cronet, binde it faſt on, and ſo let it remain the ſpace of two days, and then renew it again, not failing ſo to do every two days untill you ſee it wax hard and firm above. For this Plaiſter being reſtrictive, will force the humors to reſort all downward, which muſt be drawn out with Turpentine and Hogs-greaſe as before, until it leave mattering, and then dry it up with burnt Allũm beaten to powder, and ſtrowed upon it, with a little flax laid again upon that; continuing ſo to do every day once, until it be hardned; and let not the Horſe come in any wet, until he be whole.

Of Accloyd or Prickt.

Markham.

ACcloyd is a hurt that cometh of ſhooing, when a Smith driveth a nail in the quick, which will make him to halt. And the cure is; to take off the ſhooe, and to cut the hoof away, to lay the ſore bare: then lay to it Wax, Turpentine, and Deer-ſewet, which will heal it.

Of the Fig.

IF a Horſe having received any hurt, as before is ſaid, by nail, bone, ſplent, or ſtone, or otherwiſe in the ſole of his foot, and not be well dreſſed and perfectly cured, there will grow in that place a certain ſuperfluous piece of fleſh, like a Fig: and it will have little grains in it like a fig, and therefore is rightly called of the *Italians*, *Un fico*, that is to ſay, a fig. The cure whereof according to *Martin* is thus: Cut it clean away with a hot Iron, and keep the fleſh down with Turpentine, Hogs-greeſe, and a little Wax laid on with Tow, or Flax, and ſtop the hole hard, that the fleſh riſe not, renewing it once a day until it be whole.

Of a Retreat.

THis is the pricking of a nail, not well driven in the ſhooing, and therefore pulled out again by the Smith, and is called of the *Italians*, *Tratta meſſa*. The cauſe of the pricking may be partly the raſh driving of the Smith, and partly the weakneſs of the nail, or the hollowneſs of the nail in the ſhank. For if it be too weak, the point many times bendeth awry into the quick when it ſhould go right forth. It ſlatteth and ſhivereth in the driving into two parts, whereof one part raſeth the quick in pulling out, or elſe perhaps breaketh clean aſunder, and ſo remaineth ſtill behinde, and this kinde of pricking is worſe than the cloying, becauſe it will ranckle worſe, by reaſon of the flaw of Iron remaining in the fleſh. The ſignes be theſe: If the Smith that driveth ſuch a nail be ſo lewd, as he will not look unto it before the Horſe depart, then there is no way to know it, but by the halting of the Horſe, and ſearching the hoof firſt with a hammer by knocking upon every clinging. For when you knock upon that nail, where the grief is, the Horſe will ſhrink up his foot. And if that will not ſerve, then pinch or gripe the hoof with a pair of pinſons round about, until you have found the place grieved. The cure according to *Martin* is thus: Firſt, pull off the ſhooe, and then open the place grieved with a Butter or Drawer, ſo as you may perceive by feeling or ſeeing, whether there be any piece of nail or not; if there be, to pull it out, and to ſtop the hole with Turpentine, Wax, and Sheeps-ſewet molten together, and ſo poured hot into the hole, and then lay a little Tow upon it, and clap on the ſhooe again, renewing it thus every day, until it be whole, during which time, let not the Horſe come in any wet, and it muſt be ſo ſtopped, though it be but prickt without any piece of nail remaining. And if for lack of looking to it in time, this retreat cauſe the hoof to break above, then cure it with the Plaiſter reſtrictive in ſuch order as is mentioned in the laſt place ſaving one before this.

Of Cloying.

CLoying is the pricking of a whole nail, called of the *Italians*, *Inchiodatura*; paſſing through the quick, and remaining ſtill in the ſame, and is clenched as other nails be, and ſo cauſeth the Horſe to halt. The grieved place is known, by ſearching with the hammer and pinſons, as is before ſaid: If the Horſe halt immediately, then pull off his ſhooe, and open the hole, until it begin to bleed; and ſtop it with the Ointment aforeſaid, in the ſame page of the Retreat, and clap on the ſhooe again; and the hoof may be ſo good, and the harm ſo little, as you may travel him immediately upon it, but if he be ranckled, then renew the ſtopping every day once; let him come in no wet, until it be whole.

Of

Of looſening the Hoof.

THis is a parting of the hoof from the cronet, called of the *Italians, Diſſolatura del unghia*, which if it be round about, it cometh by means of foundering; if in part, then by the anguiſh cauſed by the pricking of the canel nail, piercing the ſole of the foot, or by ſome Quitter-bone, Retreat, Gravelling, or Cloying, or ſuch like thing: The ſignes be theſe: When it is looſened by foundering, then it will break firſt in the fore-part of the Cronet, right againſt the toes, becauſe the humor doth covet always to deſcend towards the toe. Again, when the pricking of a canel nail, or ſuch like cankered thing is the cauſe, then the hoof will looſen round about, equally even at the firſt. But when it proceedeth of any of the other hurts laſt mentioned: then the hoof will break right above the place that is offended, and moſt commonly will proceed no further. The cure according to *Martin* is thus: Firſt, of which ſoever of theſe cauſes it proceeds, be ſure to open the hoof in the ſole of the foot, ſo as the humor may have free paſſage downward, and then reſtrain it above with the Plaiſter reſtrictive before mentioned, and in ſuch order as is there written, and alſo heal up the wound, as is before taught in the Chapter of a prick in the ſole of the foot.

Of caſting the Hoof.

THis is when the coffin falleth clean away from the foot, which cometh by ſuch cauſes as were laſt rehearſed, and is ſo apparent to the eye, as it needeth no ſignes to know it. The cure according to *Martin* is thus: Take of Turpentine one pound, of Tar half a pinte, of unwrought Wax half a pinte: Boil all theſe things together, and ſtir them continually until they be throughly mingled, and compact together. Then make a Boot of Leather with a good ſtrong ſole meet for the Horſes feet, to be laced or buckled about the paſtern; and dreſs his foot with the Salve aforeſaid laid upon the Flax or Tow, and bolſter or ſtuffe his foot with ſoft Flax, ſo as the Boot may grieve him no manner of way, renewing it every day once until it be whole, and then put him to graſs.

Of the Hoof-bound.

Blundevile. THis is a ſhrinking of all the whole hoof. It cometh by drought, for the hoofs perhaps are kept too dry, when the Horſe ſtandeth in the ſtable, and ſometime by means of heat, or of over-ſtraight ſhooing. The *Italians* call the Horſe thus grieved *Incaſtellado*. The ſignes be theſe: The Horſe will halt, and the hoofs will be hot; and if you knock on them with a hammer, they will ſound hollow like an empty bottle, and if both the feet be not hoof-bound, the ſore foot will be leſſer than the other indeed, and appear ſo to the eye. The cure according to *Martin* is thus: Pull off the ſhooes, and ſhooe him with half Moon-ſhooes called *Lunette*; the order and ſhape whereof you ſhall finde among the Farriers, and raſe both the quarters of the hoof with a drawer, from the cronet unto the ſole of the foot, ſo deep as you ſhall ſee the dew it ſelf come forth. And if you make two raſes on each ſide, it ſhall be ſo much the better, and inlarge the hoof the more. That done, anoint all the hoof about, next unto the cronet round about, with the Ointment preſcribed before in the Chapter of caſting the hoof, continuing ſo to do every day once until he begin to amend for the ſpace of a month; and if he goeth not well at the months end, then take off the half ſhooes, and pare all the ſoles, and thruſhes, and all ſo thin as you may ſee the dew come forth, and tack on a whole ſhooe; and ſtop all the foot within with Hogs-greaſe and Bran boiled together, and laid hot to the foot; renewing it dayly once the ſpace of nine days, to the intent the ſole may riſe. But if this will do no good; then take away the ſole clean, and clap on a whole ſhooe, and ſtop the foot with Nettles and Salt brayed together, renewing it once a day, but not over hard, to the intent the ſole may have liberty to riſe, and being grown again, let him be ſhod with the lunets, and ſent to graſs.

Of the running Fruſh.

THe Fruſh is the tendereſt part of the hoof towards the heel, called of the *Italians, Fettone*, and becauſe it is faſhioned like a forked head, the *French* men call it *Furchette*, which word our Farriers, either for not knowing rightly how to pronounce it; or elſe perhaps for eaſineſs ſake of pronuntiation, do make it a monoſyllable, and pronounce it the Fruſh; in which Fruſh breedeth many times a rottenneſs or corruption proceeding of humors that cometh out of the leg, whereby the leg is kept clean from the Windgals, and all other humors and ſwellings by means that the humors have paſſage that way. Notwithſtanding the diſcommodity of the ſorance is greater then the commodity, becauſe it maketh the Horſes feet ſo weak and tender, as he is not able to tread upon any hard ground. The ſignes be theſe:

The Horſe will halt, and ſpecially when the paſſage of the humor is ſtopt with any gravel gathered in the Fruſh, and not being ſtopt it will continually run, the ſavour whereof will be ſo ſtrong, as a man is not able to abide it, and in ſome places it will look raw. The cure according to *Martin* is thus. Firſt take off the ſhooe and pare away all the corrupt places, and make them raw, ſo as you may ſee the water iſſue out of the raw places, then tack on the ſhooe again, being firſt made wide and large enough. That done, take of Soot one handful, of Salt as much; bruiſe them well together in a diſh, and put thereunto the white of three Egges, and temper them together, and with a little Tow dipt therein, ſtop all the foot, and eſpecially the Fruſh, and ſplent it ſo as it may not fall out, renewing it once a day the ſpace of ſeven days, and then he will be whole. During which time let the Horſe reſt, and come in no wet, at the ſeven days end leave ſtopping him, and ride him abroad, and always when he cometh in, let his ſore foot be clean waſhed, that no gravel remain therein, without doing any more unto him.

Of the Fruſh.

Markham.

THe Fruſh is the tendereſt part of the ſole of the foot, which by humors diſtilling many times down from the legs, occaſion inflamations in that part, which may eaſily be perceived by the impoſtumation of the ſame. The cure is thus: Firſt having taken off the ſhooe, pare away all the corrupted and naughty matter, until the ſore look raw, then nail on a hollow ſhooe made for the ſame purpoſe; and take of ſoot a handful, of the juyce of Houſe-leek and of Cream, with the white of an Egge or two, as much as will thicken the ſame: with this ſtop up the ſore, and ſplint it, ſo as it may not fall out, renewing it until it be whole: but during the cure, have regard that the ſore foot touch not any wet, for that is very much hurtful.

Of diſeaſes or griefs indifferently incident to any part of the body, but firſt of the Leproſie, or univerſal Mangineſs, called of the old Writers Elephantia.

THis is a cankred Mangineſs, ſpreading over all the body, which cometh of abundance of melancholy, corrupt and filthy bloud. The ſignes be theſe: The Horſe will be all mangy and ſcurvy, full of ſcabs, and raw plots about the neck, and evil favoured to look on, and always rubbing and ſcratching. The cure according to *Martin* is thus: Let him bloud the firſt day in the one ſide of the neck, and within two days after that, in the flanck veins; and laſt of all, in the vein under the tail. Then waſh all the ſore places with Salt brine, and rubbing them hard with a wiſpe of ſtraw hard twiſted, ſo as they may bleed well, and be all raw. That done, anoint the place with this Ointment: Take of Quick-ſilver one ounce, of Hogs-greaſe one pound, of Brimſtone beaten into powder a quartern, of Rape Oyl a pinte; mingle theſe things well together, until the Quick-ſilver be throughly incorporated with the reſt; and having anointed all the raw places with this Ointment, make it to ſink into the fleſh, by holding and weaving up and down over it a hot broad bar of Iron, and then touch him no more again the ſpace of two or three days; during which time, if you ſee that he rubbeth ſtill in any place, then rub that place again with an old Horſe-combe, to make it raw, and anoint it with freſh Ointment. But if all this will not help, then with a hot Iron, and blunt at the point, ſo big as a mans little finger; burn all the mangy places, making round holes, paſſing only through the skin, and no further. For which intent it ſhall be needful to pull the skin firſt from the fleſh, with your left hand, holding it ſtill until you have thruſt the hot Iron through it, and let every hole be a ſpan off one from another, and if need be, you may anoint thoſe holes with a little Sope, and let the Horſe be thin dieted, during his curing time.

Of the Farcin, called in Italian *of ſome* Il verme, *and of ſome* Farcina.

THis kinde of creeping Ulcer groweth in knots, following a long ſome vein, and it proceedeth of corrupt bloud ingendered in the body, or elſe of ſome outward hurt, as of ſpur-galling, or the biting of ſome other Horſe; or of biting of ticks, or of Hogs lice, or ſuch like caſualities: Or if it be in the legs, it may come by interfering. It is eaſily known, partly by the former deſcription, and alſo it is apparent to the eye. The cure according to *Martin* is thus: Let him bloud in that vein where it cometh, as nigh the ſore place as may be, and let him bleed well; then fire every knot one by one, taking the knot in your left hand, and pulling it ſo hard as you can from his body, to the intent you may better pierce the knot, with a blunt hot Iron, of the bigneſs of a mans fore-finger, without doing the body any hurt, and let out the matter, leaving none unburn'd, be it little or much. That done, anoint every knot ſo burned with Hogs-greaſe warmed every day once, until the coars be ready to fall away: and in the mean time prepare a good quantity of old Urine, and when you ſee the coars ready to fall, boil the Urine, and put therein a little Copperas and Salt, and a few ſtrong Nettles, and with that water being warm, waſh out all the coars, and the corruption.

That done, fill every hole immediately with the powder of ſleck't lime, continuing thus to do every day once, until the holes be cloſed up; and if any be more ranker then other, fill thoſe with Verdigreaſe; and during this cure let the Horſe be thinly dieted, that is to ſay, with ſtraw and water only, unleſs it be now and then to give him a loaf of bread: for the lower he be kept, the ſooenr he will be whole. And in any wiſe let his neck be yoked in an old bottomleſs pail, or elſe with ſhort ſtaves to keep him from licking the ſores, and the leſs reſt he hath, the better. Or do thus: Take a good great Dock-root clean ſcraped, and cut thereof five little rundles or cakes to be uſed as followeth. Firſt with a knife make a ſlit right down in the Horſes fore-head three inches long, then with a Cornet looſen the skin within the fleſh, ſo as you may eaſily put therein five rundles of Dock, that is to ſay, two on each ſide of the ſlit one above another, and put the fiſt rundle in the very midſt betwixt the other four: that done, faſten to each of the ſlits two ſhort Shoomakers ends, to ſerve as laces to tie in the foreſaid rundles, ſo as they may not fall out, and clenſe the ſore every day once, for the vertue of the root is ſuch, as it will draw all the filthy matter from any part of the body: yea, though the Farcin be in the hinder-legs, which matter is to be wiped away from time to time, and new roots be thruſt into the ſlit according as you ſee it needful.

Of the Farcion.

Markham. THe Farcion is a vilde diſeaſe, ingendered of ill bloud, flegmatick matter, and unkindely feeding; it appeareth in a Horſe like unto little knots in the fleſh, as big as a Haſel-nut; the knots will encreaſe daily and inflame, Impoſtume, and break; and when the knots amount to threeſcore, they will every night after breed ſo many more, till they have over-run the Horſes body, and with the poyſon, which is mighty and alſo ſtrong ſoon bring him to his death: This diſeaſe is very infectious and dangerous for ſome Horſes, yet if it be taken in any time, it is eaſie to be holpen: The cure thereof is in this manner: Take a ſharp Bodkin, and thruſt it through the neather part of his noſe, that he may bleed: or if you will, to let him bloud in the neck-vein ſhall not be amiſs, then feel the knots, and as many as are ſoft lance them and let them run; then take ſtrong Lye, Lime, and Allum, and with the ſame bathe all his ſores, and it ſhall in ſhort ſpace cure him. There is alſo another manner of curing this diſeaſe, and that is thus: Take a ſharp lance-kniſe, and in the top of the Horſes fore-head, juſt between his eyes, make a long ſlit even to the skull: then with a blunt inſtrument for the purpoſe loſe the fleſh from the ſcalp a pretty compaſs: then take Carret-roots cut into little thin round pieces, and put them between the skin and the skull, as many as you can, then cloſe up the wound, and once a day anoint it with freſh Butter: This is a moſt ſure and approved way to cure the Farcion; for look how this wound thus made, ſhall rot, waſte, and grow ſound, ſo ſhall the Farcion break, dry up, and be healed, becauſe all the poyſon that feedeth the diſeaſe ſhall be altogether drawn into the fore-head, where it ſhall die and waſte away. The only fault of this cure is, it will be ſomewhat long, and it is a foul eye-ſore until it be whole. Some uſe to burn this ſorance, but that is naught and dangerous, as who ſo proves it ſhall finde.

A moſt approved medicine to cure the Farcion.

Markham. TAke of *Aqua-vita* two ſpoonfuls, of the juyce of Herb of grace as much; mingle them together, then take of Plegants or Bals of Flax or Tow, and ſteep them therein, and ſtop them hard into the Horſes ears; then take a needle and a thread, and ſtitch the tips of his two ears together, by means whereof he cannot ſhake out the medicine, and uſe him thus but three ſeveral mornings, and it will kill any Farcion whatſoever, for it hath been often approved.

Another medicine of the ſame.

SLit every hard kernel with a ſharp kniſe, and fill the hole with an Ointment made of old Lard, Sope, and gray Salt, for that will eat out the coar, and cauſe it to rot, and ſo fall out of the own accord.

Of the Canker, called of the Italian, *Il Cancro.*

Blundevile. A Canker is a filthy creeping Ulcer, fretting and gnawing the fleſh in great breadth. In the beginning it is knotty, much like a Farcine, and ſpreadeth it ſelf into divers places, and being exulcerated, gathereth together in length into a wound or ſore. This proceedeth of a melancholy and filthy bloud ingendered in the body, which if it be mixt with Salt humors, it cauſeth the more painful and grievous exulceration, and ſometime it cometh of ſome filthy wound that is not cleanly kept, the corrupt matter whereof cankereth other clean parts of the body. It is eaſie to be known by the deſcription before. The cure whereof according to *Martin* is thus: Firſt let him bloud in thoſe veins that be next the ſore, and take enough of him. Then take of Allum half a pound, of green Copperas, and of white Copperas, of each one quartern, and a good handful of Salt: boil all theſe things together in fair running water, from a pottle to a quart. And this water being warm, waſh the ſore with a cloth, and then ſprinkle thereon the powder of unſleck't lime, continuing ſo to do every day once the ſpace of fifteen days: and if you ſee that the lime do not mortifie the ranck fleſh, and keep it from ſpreading any further; then take of black Sope half a pound, of Quick-ſilver half an ounce, and beat them together in a pot, until the Quick-ſilver be ſo well mingled with the Sope, as you can perceive none of the Quick-ſilver in it. And with an Iron ſlice, after that you have waſhed the ſore with the Strong-water aforeſaid, cover the wound with this Ointment, continuing thus to do every day once, until the Canker leave ſpreading abroad. And if it leave ſpreading, and that you ſee the ranck fleſh is mortified, and that the edges begin to gather a ſkin, then after the waſhing, dreſs it with the lime as before, continuing ſo to do until it be whole. And in the dreſſing, ſuffer no filth that cometh out of the ſore, to remain upon any whole place about, but wipe it clean away, or elſe waſh it away with warm water. And let the Horſe during this cure, be as thinly dieted as may be, and throughly exerciſed.

Of the Fiſtula, called of the Italians Fiſtula.

A Fiſtula is a deep hollow crooking Ulcer, and for the moſt part ſprings of malign humors, ingendered in ſome wound, ſore, or canker, not throughly healed. It is eaſie to know by the deſcription before. The cure according to *Martin* is thus: Firſt, ſearch the depth of it with a quill, or with ſome other inſtrument of Lead, that may be bowed every way, meet for the purpoſe. For unleſs you finde the bottom of it, it will be very hard to cure: And having found the bottom, if it be in ſuch a place as you may boldly cut, and make the way open with a lancet or raſor, then make a ſlit right againſt the bottom, ſo as you may thruſt in your finger, to feel whether there be any bone or griſtle periſhed, or ſpongy or looſe fleſh, which muſt be gotten out, and then tent it with a tent of flax dipt in this Ointment: Take of Hony a quartern, and of Verdigreaſe one ounce beaten into powder. Boil them together, until it look red, ſtirring it continually, leſt it run over; and being luke-warm, dreſs the tent therewith, and bolſter the tent with a bolſter of flax. And if it be in ſuch a place, as the tent cannot conveniently be kept in with a band, then faſten on each ſide of the hole, two ends of Shoomakers thread right over the bolſter to keep in the tent, which ends may hang there as two laces, to tie and untie at your pleaſure, renewing the tent every day once until the ſore leave mattering. And then make the tent every day leſſer and leſſer, until it be whole. And cloſe it up in the end, by ſprinkling thereon a little ſleckt lime. But if the Fiſtula be in ſuch a place as a man can neither cut right againſt the bottom, or nigh the ſame: then there is no remedy, but to pour in ſome Strong-water, through ſome quill, or ſuch like thing, ſo as it may go to the very bottom, and dry up all the filthy matter, dreſſing him ſo twice a day, until the Horſe be whole.

Of an Aubury.

THis is a great ſpungy Wart full of bloud, called of the *Italians*, *Moro*, or *Selfo*, which may grow in any place of the body, and it hath a root like a Cocks ſtone. The cure according to *Martin* is thus: Tie it with a thread, ſo hard as you can pull it, the thread will eat by little and little in ſuch ſort, as within ſeven or eight days it will fall away by it ſelf. And if it be ſo flat as you can binde nothing about it, then take it away with a ſharp hot Iron, cutting it round about, and ſo deep as you may leave none of the root behinde, and dry it with Verdigreaſe. *Ruſſius* ſaith, that if it grow in a place full of ſinews, ſo as it cannot be conveniently cut away with a hot Iron; then it is good to eat out the core with the powder of *Reſalgar*, and then to ſtop the hole with flax dipt in the white of an Egge for a day or two; and laſtly, to dry it up with the powder of unſleck't Lime and Hony, as before is taught.

Of Wounds.

WOunds come by means of ſome ſtripe or prick, and they are properly called wounds, when ſome whole part is cut or broken. For a wound according to the Phyſitians, is defined to be a ſolution, diviſion, or parting of the whole; for if there be no ſolution or parting, then me thinks it ought rather to be called a bruiſe then a wound. And therefore wounds are moſt commonly made with ſharp or piercing weapons, and bruiſes with blunt weapons. Notwithſtanding, if by ſuch blunt weapons, any part of the whole be evidently broken, then it ought to be called a wound as well as the other: Of wounds ſome be ſhallow, and ſome be deep and hollow: Again, ſome chance in the fleſhy parts, and ſome in the bony and ſinewie places: And thoſe that chance in the fleſhy parts, though they be very deep, yet they be not ſo dangerous as the other; and therefore we will ſpeak firſt of the moſt dangerous: If a Horſe have a wound newly made, either in his head, or in any other place that is full of ſinews, bones, or griſtles: Firſt, *Martin* would have you to waſh the wound well with white Wine well warmed: That done, to ſearch the bottom of the wound with ſome inſtrument meet for the purpoſe, ſuffering it to take as little winde in the mean while as may be.

Then having found the depth, ſtop the hole cloſe with a clout, until your ſalve be ready: Then take of Turpentine, of *Mel Roſatum*, of Oyl of Roſes, of each a quartern, and a little unwrought Wax, and melt them together; and if it be a cut, make a handſome roll of clean picked Tow, ſo long and ſo big as may fill the bottom of the wound, which for the moſt part is not ſo wide as the mouth of the wound: then make another roll greater than that, to fill up the reſt of the wound, even to the hard mouth, and let both theſe rolls be anointed with the ointment aforeſaid luke-warm. But if the hurt be like a hole made with ſome prick, then make a ſtiffe tent, ſuch a one as may reach the bottom, anointed with the aforeſaid Ointment, and bolſter the ſame with a little Tow; And if the mouth be not wide enough, ſo as the matter may eaſily run forth, if it be in ſuch place you may do it without hurting any ſinew, then give it a pretty ſlit from the mouth downward, that the matter may have the freer paſſage, and in any wiſe have a ſpecial regard, that the tent may be continually kept in by one means or other, as by binding or ſtaying the ſeme with the ends of Shoomakers thread as is aforeſaid. And if the hole be deep, and in ſuch place as you may not then make your tent of a Spunge, and ſo long as it may reach to the bottom, and the tent being made ſomewhat full, with continual turning and wrying of it, you ſhall eaſily get it down, and then dteſs the wound with this twice a day, cleanſing the wound every time with a little white Wine luke-warm. For this Spunge, anointed with the Ointment aforeſaid, will both draw and ſuck up all the filthy matter, and make it ſo fair within as is poſſible: and as it beginneth to heal, ſo make your tent every day leſſer and leſſer, until it be ready to cloſe up, and never leave tenting it, ſo long as it will receive a tent, be it never ſo ſhort. For haſty healing of wounds breedeth Fiſtula's, which properly be old wounds, and therefore muſt be cured like Fiſtula's.

Of Wounds in the fleſhy parts.

USe the ſame Ointment and manner of proceeding as before. And if the wound be large, then to keep in the tent or rolls, you ſhall be fain to put two or three Shoomakers ends on each ſide of the ſore, leaving them ſo long as you may tie them together, and looſen them when you will like laces.

Of old Ulcers or Wounds.

TO cure an old Ulcer, as Fiſtula, Gall, or Botch, or any new received wound, theſe are the beſt Salves, and moſt approved in mine experience: Take of Hony half a pinte, of Deer-ſewet two ounces, of Verdigreaſe beaten into powder as much; boil all theſe exceeding well upon the fire, then with the ſame luke-warm, tent or plaiſter any venemous ſore, and it will recure it. If you take of Wax, Turpentine, Oyl of Roſes, of Hogs-greaſe, of each like quantity, and half ſo much Tar as any one of the other ſimples; melt all theſe together, and being well incorporated together, either tent or plaiſter any wound, and it will heal it. Alſo, if you take the green leaves of Tobacco bruiſed, and put them into a green wound, they will heal it: the aſhes of Tobacco burnt, if they be ſtrewed upon any ſore that is neer skinning, it will alſo skin it perfectly, and it will incarnate well, if the Ulcer be not too deep and dangerous. There be many other Salves, Plaiſters, and Unguents which I could ſet down; but ſince I have experienced theſe for moſt effectual, I omit the others as ſuperfluous.

Of an hurt with an Arrow.

IF the Horſe be hurt with an Arrow, tent the hole with Hogs-greaſe and Turpentine molten together, renewing it every day once until it be whole.

Of pulling out Shivers or Thorns.

M*Artin* ſaith, that if it be not very deep, Sope being laid unto it all night will make it to appear, ſo as you may pull it out with a pair of nippers. But if it be very deep, then you muſt open the place with a knife or lancet, and get it out, and afterward heal up the wound as hath been taught you before. *Ruſſius* ſaith, that the roots of Reed being ſtampt and mingled with Hony, will draw out any thorn or ſhiver: and ſo will Snails, as he ſaith, being ſtampt and wrought with freſh Butter; and if the place be ſwoln, he ſaith it is good to mollifie it with Hogs-greaſe and Hony, which will aſſwage any new ſwelling, that cometh by ſtripe or otherwiſe.

Of bruiſings or ſwellings.

M*Artin* ſaith, Firſt prick it with a fleam. Then take of Wine lees a pinte, as much Wheat-flowre as will thicken it, and an ounce of Cumin; boil them together, and lay this ſomewhat warm unto it, renewing it every day once until the ſwelling either depart, or elſe come to a head. And if it do, then lance it, and heal it up as a wound.

Of Sinews cut, prickt, or bruiſed.

Blundevile. TAke of Tar, and Bean-flowre, and a little Oyl of Roſes, and lay it hot unto the place. And if this do no good, then take Worms and Sallet Oyl fryed together, or elſe the Ointment of Worms, which you ſhall have at the Apothecaries, and one of theſe will knit it again, if it be not clean aſunder.

How to cure a wound made with Harquebuſh-ſhot.

MArtin ſaith, Firſt ſeek with an inſtrument whether the pellet remain within or not, and if it do, you muſt get it out with an inſtrument meet for the purpoſe. Then to kill the fire: Take a little Verniſh, and thruſt it into the wound with a feather, anointing it well within with the feather, and after that, ſtop the mouth fair and ſoftly with a little ſoft flax, to keep the winde out, and on the outſide, charge all the ſwelling with this charge: Take of Bole-armony a quartern, of Linſeed beaten into fine powder half a pound, of Bean-flowre as much, and three or four broken Egges, ſhels and all, and of Turpentine a quartern, and a quart of Vinegar, and mingle them well together over the fire, and being ſomewhat warm, charge all the ſore place with part thereof, and immediately clap a cloth, or a piece of leather upon it, to keep the wound from the cold air, continuing both to anoint the hole within with Verniſh, and alſo to charge the ſwelling without, the ſpace of four or five days, and at the five days end leave anointing of it, and tent it with a tent reaching to the bottom of the wound, and dipped in Turpentine and Hogs-greaſe molten together, renewing it every day twice until it be throughly killed, which you ſhall perceive by the mattering of the wound, and by falling of the ſwelling; for ſo long as the fire hath the upper hand, no thick matter will iſſue out, but only a thin yellowiſh water, neither will the ſwelling aſſwage. And then take of Turpentine, waſhed in nine ſeveral waters, half a pound, and put thereon three yolks of Egges, and a little Saffron, and tent it with that Ointment, renewing it every day once until the wound be whole.

Of burning with Lime or any other fiery thing.

MArtin ſaith; Firſt waſh away the Lime, if there be any, with warm water. Then kill the fire with Oyl and Water beaten together, dreſſing him ſo every day until it be all raw, and then anoint it with Hogs-greaſe, and ſtrew thereupon the powder of ſlecked lime, dreſſing him ſo every day once until it be whole.

Of the biting of a mad Dog.

IF a Horſe be bitten with a mad Dog, the venom of his teeth will not only pain him extremely, but alſo infect all his bloud, and make him to dye mad. The cure according to the old Writers is thus: Take of Goats dung, of fleſh that hath laid long in Salt, and of the herb *Ebulus*, called of ſome Danewort, of each half a pound, and forty Walnuts. Stamp all theſe things together, and lay thereof unto the ſore, and this will ſuck out the venom, and heal the wound. It is good alſo to give the Horſe Treacle, and Wine to drink: yea, and ſome would have the ſore place to be fiered with a hot Iron.

Of hurts by tuſks of a Boar.

IF a Horſe be hurt with the tuſk of a Boar, lay Vitriol, and Copperas thereunto, and the powder of a Dogs head being burned, but let the tongue be firſt pulled out and caſt away.

To heal the biting or ſtinging of Serpents.

LAurentius Ruſſius ſaith; Take a good quantity of the herb called *Sanicula*, ſtamp it, and diſtemper it with the milk of a Cow, that is all of one colour, and give him that to drink, and that will heal him.

Another Medicine for the ſame purpoſe.

MAke a plaiſter of Onions, Hony and Salt, ſtampt and mingled together, and lay that to the ſore place, and give the Horſe Wine and Treacle to drink. *Abſyrtus* would have you to give him white Pepper, Rhue, and Thyme, to drink with the Wine.

Of drinking of Horſe-leaches.

IF a Horſe chance to drink Horſe-leaches, they will continually ſuck his bloud, and kill him. The remedy, according to *Abſyrtus*, is to pour Oyl into the Horſes mouth, which will make them to fall away and kill them.

Of ſwallowing down Hens dung.

IF a Horſe ſwallow down Hens dung in his Hay, it will fret his guts, and make him to avoid filthy matter at the fundament. For remedy whereof, *Abſyrtus* would have you to give him drink made of Smallage-ſeed, Wine, and Hony, and to walk him throughly upon it, that he may empty his belly.

Of Lice, and how to kill them.

Blundevile. THey be like Geeſe Lice, but ſomewhat bigger, they will breed moſt about the ears, neck, and tail, and over all the body. They come of poverty, and the Horſe will be alwayes rubbing, and ſcratching, and will eat his meat, and not proſper withal, and with rubbing he will break all his mane and tail. The cure, according to *Martin*, is thus; Anoint the place with Sope and Quickſilver, well mingled together, and to a pound of Sope, put half an ounce of Quickſilver.

Of Louſineſs.

Markham. THere be Horſes that will be Louſie, and it cometh of poverty, cold and ill keeping, and it is oftneſt amongſt young Horſes, and moſt men take little heed unto it, and yet they will die thereon. The cure is, to waſh them three mornings together in Stau-aker and warm water.

How to ſave Horſes from the ſtinging of flies in Summer.

ANoint the Horſes coat with Oyle, and Bay-beries, mingled together, or tie to the headſtal of his collar, a ſponge dipt in ſtrong Vinegar, or ſprinkle the ſtable with water wherein Herb-grace hath been laid in ſteep, or perfume the ſtable with Ivie, or with Calamint, or with Gith burned in a pan of coles.

Of bones being broken out of joynt.

FEw or none of our Farriers do intermeddle with any ſuch griefs, but do refer it over to the Boneſetter, whoſe practiſed hand, I muſt needs confeſſe, to be needful in ſuch buſineſs. Notwithſtanding, for that it belongeth to the Farriers art, and alſo for that the old writers do make ſome mention thereof, I thought good not to paſſe it over altogether with ſilence. Albeit, they ſpeak only of fractures in the legs beneath the knee. For they make little mention or none of bones above the knee, taking them to be incurable, unleſſe it be a rib, or ſuch like. If a bone then be broken in the leg, it is eaſie to perceive, by feeling the roughneſs and inequality of the place grieved, one part being higher then another. The cure whereof, according to *Abſyrtus* and *Hierocles*, is in this ſort:

Firſt put the bone again into his right place: that done, wrap it about with unwaſh't wool, binding it faſt to the leg with a ſmall linnen roller, ſoaked before in Oyl and Vinegar mingled together. And let that roller be laid on as even as is poſſible, and upon that again lay more wool dipt in Oyl and Vinegar, and then ſplent it with three ſplents, binding them faſt at both ends with a thong, and let the Horſes leg be kept ſtraight, and right out, the ſpace of forty days, and let not the bonds be looſened above three times in twenty days, unleſs it ſhrink, and ſo require to be new dreſt, and bound again. But fail not every day once, to pour on the ſore place, through the ſplents, Oyl and Vinegar mingled together. And at the forty dayes end, if you perceive that the broken place be ſowdered together again with ſome hard knob or griſtle; then looſen the bonds, ſo as the Horſe may go fair and ſoftly, uſing from that time forth to anoint the place with ſome ſoft greaſe or Ointment.

Of broken bones.

Markham. I Have not for mine own part had any great experience in broken bones of a Horſe, becauſe it chanceth ſeldom, and when it doth chance, what through the Horſes brutiſh unrulineſs, and the immoderate manner of the act, it is almoſt held incurable; yet for the little experience I have, I have not found for this purpoſe any thing ſo ſoverain or abſolute good, as Oyl of Mandrag, which applyed, conglutinateth and bindeth together any thing, eſpecially bones being either ſhivered or broken.

Of bones out of joynt.

Blundevile. IF a Horſes knee or ſhoulder be clean out of joynt, and no bone broken, *Martin* ſaith the readieſt way is, to bind all the four legs together, in ſuch ſort as hath been taught before in the Chapter of Incording, and then to hoiſe the Horſe ſomewhat from the ground, with his heels upward, ſo ſhall the weight and poiſe of his body, cauſe the joynt to ſhoot in again into the right place: for by this means he pleaſured not long ſince a friend and neighbour of his, who going with his Cart from S. *Albons*, towards his own houſe, his Thiller fell and put his ſhoulder clean out of joynt, ſo as he was neither able to riſe, nor being holpen up, could ſtand on his legs: to which miſchance *Martin* being called, made no more ado, but taking his friends Cart-rope, bound the Horſes legs all four together, and with a lever being ſtaid upon the Cart wheel, they putting their ſhoulders to the other end, hoiſed up the Horſe clean from the ground, the poiſe of whoſe body made the bone to return into his right place, with ſuch a loud knack or crack, as it might be heard a great way off, and the Horſe immediately had the uſe of his leg, ſo as he drew in the Cart, and went alſo ſafe home without complaining thereof ever after.

Certain receipts of Plaiſters, very good for broken bones, taken out of the old Authors, writing of Horſe-leach craft.

TAke of *Spuma argenti*, of Vinegar, of each one pound, of Sallet Oyl half a pound, of *Ammoniacum*, and Turpentine, of each three ounces, of Wax, of Roſin, of each two ounces, of Bitumen, of Pitch, of Verdigreaſe, of each half a pound. Boyl the Vinegar, Oyl and *Spuma argenti* together, until it wax thick, then put thereunto the Pitch, which being molten, take the pot from the fire, and put in the Bitumen, without ſtirring it at all, and that being alſo molten, then put in all the reſt, and ſet the pot again to the fire, and let them boyl all together until they be all united in one: that done, ſtrain it, and make it in a plaiſter form, and this is called *Hierocles* Plaiſter.

Another receit for broken bones.

TAke of liquid Pitch one pound, of Wax two ounces, of the pureſt and fineſt part of Frankincenſe one ounce, of *Ammoniacum* four ounces, of dry Roſes, and of *Galbanum*, of each one ounce, of Vinegar two pintes. Boyl firſt the Vinegar and Pitch together, then put in the *Ammoniacum*, diſſolved firſt in Vinegar, and after that, all the reſt of the aforeſaid drugs, and after they have boyled together, and be united in one, ſtrain it, and make it plaiſterwiſe, and this is called *Emploſtrum flavum*, that is to ſay, the Yellow plaiſter.

An Ointment for broken bones.

TAke of old Sallet Oyl a quart, and put thereunto of Hogs greaſe, of *Spuma nitri*, of each one pound, and let them boyl together until it begin to bubble above, and let this ointment be very warm when you uſe it.

Hitherto of all the diſeaſes belonging to a Horſe. Now therefore my promiſe was made unto you to ſpeak of thoſe things wherein the cure of all diſeaſes do conſiſt, that is to ſay, in letting of bloud, in taking up of veins, in purging, and in giving the fire; yea, and alſo order it ſelf bindeth me to treat of the ſaid things preſently, and firſt of letting bloud.

In how many veins a Horſe may be let bloud, and to what end.

AS touching the order, time of the year, Moon, and day, and other circumſtances belonging to letting of bloud, we have ſufficiently ſpoken already in the keepers Office, in the 22 Chapter. It reſteth therefore here to ſhew you what veins ſhould be opened when the Horſe is ſick of any diſeaſe, according to *Vegetius* opinion. But firſt I will rehearſe unto you once again, in how many veins a Horſe may be let bloud, and the rather for that I follow *Vegetius*. A Horſe then may be let bloud in the two Temple veins. *Item*, in the two eye veins, which are eaſie to finde in the face of the Horſe, ſomewhat beneath the eyes. *Item*, in the two palat veins of the mouth. In the two neck veins. *Item*, in the two palat veins which are in the breaſt. *Item*, in the two fore thigh veins. *Item*, in the four ſhakle veins before. *Item*, in the two toe veins before. *Item*, in the two ſide veins, which may be otherwiſe called flank veins. *Item*, in the tail vein. *Item*, in the two hanch veins. *Item*, in the two hough veins. *Item*, in the four ſhakle veins behind. *Item*, in the two toe veins behind; ſo that by this account, a Horſe may be let bloud in 31 veins. All which veins are eaſie enough to know, becauſe that every one lyeth in a little gutter, which by feeling ſoftly with your finger, you ſhall finde immediately.

And *Vegetius* ſaith, that if any Horſe be pained with any grief in his head, as with ach, heavineſs, frenzy, falling-evil, or ſuch like, then it is good to let him bloud in the two temple veins with a fleam. If his eyes be wateriſh, bloudſhotten, or grieved with pin, web, or haw, then it is good to ſtrike the eye vein with a fleam. If he have any heavineſs or wearineſs of body, or be diſeaſed in the throat with the ſtrangullion, quinzie, or ſwelling of the arteries, either within or without, then it is good to let him bloud in the mouth, in the palat veins with a Cornet. If he be vexed with an Ague, or with ony other diſeaſe univerſally hurting the body, then let him bloud in the neck veins. If his grief be in the lungs, liver, or in any other inward member, then let him bloud in the breſt veins, which we called before the palat veins. If he be grieved in the ſhoulder, then let him bloud in the fore-thigh veins above the knee with a lancet, and that very warily, becauſe that place is full of ſinews, and if he be grieved in his joynts, then let him bloud in the ſhakle veins, and that warily, becauſe that place is alſo full of ſinews.

And if he be foiled on his fore-feet, by foundering or otherwiſe, then let him bloud in the toe veins, making way firſt with your drawer, or Cornet in the hoof to come to the vein. If he be diſeaſed in the kidnies, reins, back, or belly, then let him bloud in the flank veins, and in the tail. If he hath any grief in his hips, or houghs, then let him bloud in the hip or hough veins. And if his hinder-legs, joynts, or feet be grieved, then let him bloud in the ſhakel veins, and toe veins, as is aforeſaid.

The order of taking up Veins, and wherefore it is good.

Blundevile.

THe order obſerved by *Martin*, is in this ſort; Firſt, if the Horſe be very curſt and ſhrewd, then caſt him upon a dunghil, or ſome ſtraw, then having found the vein that you would take up, marke well that part of the skin which covereth the vein, and pull that ſomewhat aſide from the vein with your left thumb, to the intent you may ſlit it with a Raſor, without touching the vein. And cut no deeper then only through the skin, and that longſt wiſe, as the vein goeth, and not above an inch long. That done, take away your Thumb, and the skin will return again into his place, right over the vein, as it was before. Then with a Cornet uncover the vein and make it up, and being bare, thruſt the Cornet underneath it, and raiſe it up, ſo as you may put a Shoomakers threed underneath, ſomewhat higher then the Cornet, to knit the vein when time is. And if your Cornet had a hole in the ſmall end to put in the threed, it ſhould be the eaſilier done. Then the Cornet ſtanding ſo ſtill, ſlit the vein longſt wiſe that it may bleed, and having bled ſomewhat from above, then knit it up with a ſure knot, ſomewhat above the ſlit, ſuffering it to bleed only from beneath, and having bled ſufficiently, then knit up the vein alſo beneath the ſlit with a ſure knot, and fill the hole of the vein with Salt, and then heal up the wound of the skin with Turpentine and Hogs greaſe molten together, and laid on with a little Flax. The taking up of veins is very neceſſary, and doth eaſe many griefs in the legs: for the taking up of the fore-thigh veins eaſeth Farcins, and ſwellings of the legs; the taking up of the ſhakel veins before, eaſeth the Quitter-bone and ſwelling of the joynts, ſcabs, and cratches. The taking up of the hinder veins, helpeth the Farcin, Swellings, and both the Spavens; the taking up of the ſhakel veins behind, helpeth ſwelling of the joynts, the pains, and kibed heels, and ſuch like diſeaſes.

Of Purging with Purgation or Glyſter.

PUrgations is defined by the Phyſitians, to be the emptying or voiding of ſuperfluous humors, annoying the body with their evill quality. For ſuch humors bring evill juyce and nutriment, called of the Phyſitians *Cacochymia*, which when it will not be corrected or holpen with good diet, alteration, nor by the benefit of nature and kindly heat, then it muſt needs be taken away by Purgation, Vomit, or Glyſter. But foraſmuch as Horſes are not wont to be purged by Vomit, as men be, I will ſpeak here only of Glyſters and Purgations. And firſt becauſe a Horſe is grieved with many diſeaſes in his guts, and that nothing can purge the guts ſo well as a Glyſter, and eſpecially the thick guts, I wiſh that our Farriers would learn to know the diverſities of Glyſters, to what end they ſerve, and with what drugs or ſimples they ſhould be made, for as the diſeaſe requireth, ſo muſt the Glyſter be made; ſome to allay griefs and ſharpneſs of humors, ſome to binde, ſome to looſen, ſome to purge evill humors, ſome to cleanſe Ulcers: but our Farriers uſe Glyſters, only to looſen the belly, and for no other purpoſe; yea, few or none do that unleſſe it be *Martin*, and ſuch as he hath taught, who is not ignorant that a Glyſter is the beginning of purgation. For a Glyſter, by cleanſing the guts, refreſheth the vital parts, and prepareth the way before. And therefore whenſoever a Horſe is ſurfeited and full of evill humors, needing to be purged, and ſpecially being pained in the guts, I would wiſh you to begin firſt with a Glyſter, leſt by purging him by medicine upon the ſudden, you ſtir up a multitude of evill humors, which finding no paſſage downward, becauſe the guts be ſtopt with winde and dregges, do ſtrike upwards, and ſo perhaps put the Horſe in great danger.

But now you ſhall underſtand, that Glyſters be made of four things, that is to ſay, of Decoctions, of Drugs, of Oyls, or ſuch like unctious matters, as Butter and ſoft greaſe, and fourthly of divers kindes of Salt to provoke the virtue expulſive. A Decoction is as much to ſay as the broth of certain hearbs or ſimples boyled together in water till the third part be conſumed. And ſometime in ſtead of ſuch Decoction, it ſhall be needful perhaps to uſe ſome fat broth, as the broth of Beef, or of Sheeps heads, or Milk, or Whay, or ſome other ſuch like liquor, and that perhaps mingled with Hony or Sugar, according as the diſeaſe ſhall require, the Glyſter to be either Lenitive, that is to ſay, eaſing pain; or Glutinative, that is, joyning together; or elſe Abſterſive, that is to ſay, cleanſing or wiping away filthy matter, of which Decoction of broth being ſtrained, you ſhall need to take three pintes or a quart at the leaſt. And then into that, you may put ſuch drugs as ſhall be needful to the weight of three or four ounces, according as the ſimples ſhall be more or leſſe violent. Of Oyl at the leaſt half a pinte, and of Salt two or three drams, and then to be miniſtred luke-warm with a horn or pipe made of purpoſe, when the Horſe is not altogether full panched, but rather empty, be it either in fore-noon, or after-noon. And as touching the time of keeping Glyſters in the body, you ſhal underſtand, that to Glyſters abſterſive half an hour or leſſe may ſuffice: to Glyſters Lenitive, a longer time if it may be: and to Glyſters Glutinative, the longeſt time of all is moſt needful.

Of

Of Purgations.

Purgations for Men may be made in divers ſorts and forms; but Horſes are wont to be purged only with pils, or elſe with purging powders put into Ale, Wine, or ſome other liquor. But the ſimples whereof ſuch pils or powders be made, would be choſen with judgement and aptly applyed, ſo as you may purge away the hurtful humors, and not the good. Learn firſt therefore to know with what humor or humors the Horſe is grieved, be it Choler, Flegm, or Melancholy, and in what part of the body ſuch humors do abound: then what ſimples are beſt to purge ſuch humors, and with what property, quality, and temperament they be indued. For ſome be violent and next couſins to poyſon, as Scammony, or *Coloquintida*. Some again are gentle, and rather meat than medicines, as *Manna*, *Caſſia*, Whay, Prunes, and ſuch like. And ſome again be neither too violent, nor too gentle, but in a mean, as Rhubarb, Agarick, *Sene*, Aloes. The old men did uſe much to purge Horſes with the pulp of *Coloquintida*, and ſometime with the roots of wilde Cowcumber; and ſometime with the broath of a ſodden Whelp mingled with *Nitrum*, and divers other things, whereof I am ſure I have made mention before in the curing of Horſes diſeaſes. *Blundevile.*

Notwithſtanding I would not wiſh you to be raſh in purging a Horſe after the old mens example. For as their ſimples many times be very violent, ſo the quantities thereof by them preſcribed are very much, and dangerous for any Horſe to take in theſe days, in the which neither man nor beaſt, as it ſeemeth, is of ſuch force or ſtrength as they were in times paſt. And therefore whenſoever you would purge him with ſuch like kindes of Purgations as *Martin* uſeth, whereof you have example before in divers places; and whenſoever you liſt for knowledge ſake to deal with other ſimples, to prove them firſt upon ſuch Jades as may well be ſpared. For whoſoever mindeth to purge a Horſe well, that is, to do him good and no hurt, had need to conſider many things: as the nature of the Horſes diſeaſe, and the Horſes ſtrength: alſo the nature, ſtrength and quantity of the medicine that he miniſtreth: the Region, or Countrey, the time of the diſeaſe, the time of the year and day. For as the diſeaſes and evil humors cauſing ſuch diſeaſes are divers, ſo do they require to be purged with divers medicines, diverſly compounded, wherein conſiſteth a point of Art to be learned at the Phyſitians hands, and not at mine.

Again, weak, delicate, and tender Horſes may not be purged in ſuch ſort, as thoſe that be of a ſtrong ſturdy nature. And therefore in ſuch caſes the quality and quantity of the ſimples is not a little to be conſidered; neither is the hotneſs or coldneſs of the Region to be neglected, nor the time of the diſeaſe. For ſome require to be purged in the very beginning, ſome not until the matter be throughly digeſted: and though the diſeaſe proceed perhaps of cold, and cold humors, yet a man may not miniſter ſuch hot things in Summer, as he would do in Winter, nor in the contrary caſe, ſuch cold things in Winter as he would in Summer. And therefore the time and ſeaſon of the year is alſo to be obſerved: yea the day and time of the day. For the more temperate the day is, the better; not in an extreme hot day, for making the Horſe to faint; nor yet when the winde bloweth in the cold North, for that will ſtop and hinder the working of the medicine, but rather in a temperate moiſt day, when the winde is in the South, if it may be; for that will further and help the working of the medicine, and make the body looſe and ſoluble.

Again for a Horſe, whether you purge him with pils or drink, it is beſt for him (as *Martin* ſaith) to take them in the morning, after that he hath faſted from meat and drink all the night before. And having received his medicine, let him be walked up and down, one hour at the leaſt, and then ſet him up, and ſuffered to ſtand on the bit two or three hours without any meat, but in the mean time ſee that he be well littered, and warm covered: and at three hours end, offer him a little of a warm maſh made with Wheat-meal, or with Bran or elſe with ground mault. Give him little meat, or none until he be purged: all which things have been ſhewed you before in divers places, and therefore I think it not good to be tedious unto you with often recital thereof.

Of Cauterization, or giving the fire, as well actual as potential.

Foraſmuch as the Fire is judged of all the old Writers to be the chiefeſt remedy, and as it were the laſt refuge in all diſeaſes almoſt whereunto a Horſe is ſubject, I thought good therefore to talk of it in this place; and the rather, for that few or none of our Farriers, unleſs it be *Martin*, or ſuch as have been taught, do know how to give the fire, or to what end it ſerveth. But firſt you ſhall underſtand, that according to the learned Chirurgeons, yea, alſo according to my old Authors, there be two kindes of Cautery, the one actual, and the other potential. The Cautery actual is that which is done only by fiering of the grieved place with a hot Iron. The potential Cautery is done by applying unto the grieved place ſome medicine corroſive, putrifactive, or cauſtick. But we will ſpeak firſt of the actual Cautery, ſhewing you wherefore it is good, then of what metal and faſhion your inſtrument ſhould be made, and finally how and when to uſe them.

Avicen ſaith, that an actual Cautery moderately uſed, is a noble remedy to ſtop corruption of members, to rectifie the complexion of the ſame, and alſo to ſtanch bloud. Howbeit you muſt beware (ſaith he) that you touch not the ſinews, cords, or ligaments, leſt the member be weakened, or that the Cramp enſueth. *Vegetius* alſo writing of Horſe-leach-craft, praiſeth the actual Cautery very much, ſpeaking in this ſort: The actual Cautery ſaith he, bindeth together

ther parts looſened, it doth attenuate parts blown and puffed up, it dryeth up ſuperfluous moiſture, it looſeneth and divideth evill matter gathered together into knots, it aſſwageth old griefs, it rectifieth thoſe parts of the body that are corrupted by any manner of way, reducing them to their priſtine eſtate, and ſuffereth no ſuperfluity to grow or increaſe, for the skin being opened with a hot iron, all kind of corruption by virtue of the fire is firſt digeſted and ripened, and then diſſolved, ſo as the matter doth iſſue out at the holes, whereby the member or part before offended is now healed, and eaſed of all pain and grief; yea the holes being once cloſed and clean ſhut up, that place is ſtronger and better knit, and covered with a tougher skin then ever it was before.

Now as touching the inſtrument whereof, and of what faſhion they ſhould be made, you ſhall underſtand, that *Vegetius* and the other old Writers would have them to be made of Copper, praiſing that metal to be far better to burn with, then Iron The Chirurgions for mans body do praiſe Gold and Silver; but as for the faſhion of the Irons, it is to be referred to the kind of ſore place and grieved, wherewith you have to deal, according to the diverſity whereof, the inſtruments are to be made of divers faſhions, as ſome with ſearing Irons with ſharp edges, and ſome with blunt and broad edges, ſome like right, and ſome like crooked Bodkins, and ſome like hooks and ſickles, and ſome with a great Button, and ſome with a ſmall Button at the one end; in making whereof, the Farriers judgement is moſt needful, who ought to be ſo skilful as he may be able to make all manner of Irons that he ſhould occupie, and to alter them according as need ſhall require. And therefore I thought good only here to ſpeak of the common drawing Iron, and of the Button Iron, like in form to thoſe that *Martin* uſeth, referring all the reſt to your own judgement, and ſpecially ſith you have been fully inſtructed before of what ſort they ſhould be made meet to ſerve your turn in any diſeaſe.

Now as touching the uſe of the inſtruments, two things are ſpecially to be conſidered, that is the heating of the Iron, and the bearing of the hand. For the back of the Iron may not be red hot, but only the edge, for fear of yeelding too much heat. And therefore though it be made red hot at the firſt, yet it ſhall be good before you occupie it, to cool the back of the inſtrument in water; and as touching the bearing of the hand, more evenly and lightly it is done, the better, and that according as the fineneſs and thinneſs of the skin ſhall require, which is to be judged by the hair. For if the hair be ſhort and fine, then it is a ſigne of a fine skin, if long and rough, then it betokeneth a thick skin. The fine skin requireth the lighter hand, and not to be burned ſo deep as the thick skin, yet both muſt be burned until they look yellow. But the fine skin will look yellow with leſſer burning then the thick skin. For the thick skin with his long hair doth choke the fire, and therefore requireth a more heavy hand: yea, and more often heating of the inſtrument then the thin skin doth, and be ſure to draw alwayes with the hair, and not againſt the hair, in what forme and in what manner of lines hath been taught you before; for thoſe muſt be made either long, ſhort, deep, ſhallow, right-crooked, or over-thwart, according as the diſeaſe doth require: you have learned alſo how to allay the heat of the fire, after ſuch drawing. And therefore I have no more to ſay here, but only to admoniſh you according to *Vegetius* precepts, not to fire any ſinewie place, nor bone that is broken or out of joynt, for fear of weakning the whole member, nor to bear ſo heavie or uneven hand, as you ſhould thereby deform or miſfaſhion any part of the Horſe, nor be too haſty in giving the fire, but to attempt firſt all other convenient remedies, and when nothing elſe will help to make the fire your laſt refuge, and yet not ſo much to neglect it and abhor it, like the ignorant ſort, as you will not uſe it when need requireth, for lack whereof many Horſes go lame, and uncured of divers diſeaſes. Practiſe your ſelves therefore in giving the fire at needful times with judgement and diſcretion, ſo ſhall you do it to the Horſes benefit, and to your own great praiſe and profit.

Of Cauteries Potential.

CAuteries Potential, as *Johannes Vigo* ſaith, are medicines Corroſive, Putrifactive and Cauſtick. This word Corroſive, is derived of the *Latin* word *Corrodo*, which is as much to ſay, as to gnaw and fret; and of ſuch Corroſives, ſome be ſimple and ſome compound. The ſimple, as *Vigo* ſaith, be ſuch as theſe be, Roch Alum, as well burnt as not burnt, ſpunge of the Sea ſomewhat burnt, Lime, red Coral, powder of Mercury. Compound Corroſives be theſe, *Unguentum Apoſtolorum*, *Unguentum Ægyptiacum*, *Unguentum Ceraceum*. Medicines Putrifactive, called of the learned ſort, *Septica*, according to *Avicen*, be thoſe that have ſtrength to corrupt the complexion of the member, and to induce any ſcar like dead fleſh, cauſing great pain; yea and Fevers, and therefore ought not to be miniſtred but to ſtrong bodies and in ſtrong diſeaſes, as in Carbuncles, Cankers, Ulcers, and ſuch like, and they be theſe, *Arſenicke*, *Sublimat*, *Reſalgar*, and otder medicines compound therewith. *Silvius* alſo addeth thereunto *Sandaraca*, *Chryſocolla*, and *Aconitum*, but he doth not agree with *Avicen* in the deſcription of the putrifactive medicines: For he ſaith, that they have little pain or none, neither be they ſo hot and drie as thoſe that are called *Eſcharotica*; that is to ſay, Cruſtive: which be hot in the fourth degree, and do breed a cruſt and ſcar, and cauſe great pain, as unſleck't Lime, and the burned dregs of Wine: wherefore it ſeemeth that *Avicens* deſcription belongeth rather to the cruſtive then to the Putrifactive medicines.

Notwithſtanding, I muſt needs ſay that our Chirurgions and alſo Farriers, do finde both *Arſenick* and *Reſalgar*, to be ſo ſharp, hot and burning things, as when they miniſter the ſame to any part of the body, they are forced to allay the ſharpneſs thereof: the Chirurgions with the juice of Plantain, or Daffadil, or elſe of Houſe-leek, the Farriers with Hogs greaſe. Medicines Cauſtick, that is to ſay, Burning, are thoſe whoſe operation are moſt ſtrong and incline to the nature of the fire, and yet more eaſily allayed as *Vigo* writeth, then the medicines Putrifactive, and therefore may be more ſafely uſed. They be made as he ſaith, of ſtrong lie, called *Capitellum*, or *Magiſtra*, of *Vitriola Romane*, *Sal Nitri*, *Aqua fortis*, of this ſort be all thoſe which *Vigo* calleth the bliſtering medicines, as *Apium*, *Cantharides*, *Ciclamine*, Onions, ſtrong Garlick, *Melanacardinum*, the ſtones or grains of *Vitis Alba*, otherwiſe called Brionie. Moreover, *Vigo* maketh every one of theſe Cauteries Potential to excell one another, as it were by certain degrees, ſaying, that Corroſives be weaker then putrifactives, and Putrifactives be weaker then Cauſticks, and therefore Corroſives work in the upper part, and in ſoft fleſh; Putrifactives, in hard fleſh and deep. But Cauſticks have power to break the skin in hard fleſh, and do enter moſt deeply. The uſe of the moſt part of which things have been taught you before in ſundry places, according to *Martins* experience.

And therefore I leave to trouble you any further, wiſhing you that are deſirous to know any more of thoſe matters, to read *Tauganteus* writing *De piroticis*; and *Silvius de medicamentorum compoſitione*; and *John Vigo* writing of Surgery, *Engliſhed* but few years ſince. But the old writers, ſo far as I can judge by the words of *Abſyrtus*, and others, that write of Horſe-leach craft, do apply this word Cauſtick, to ſuch medicines as are aſtrictive, and binding, called of *Martin* and other Farriers in theſe dayes, binding charges, as may well appear by the compoſition and uſe here following, recited by *Vegetius* in this ſort.

The receipt of a Cauſtick uſed by Chiron, *to dry up the ſuperfluous moiſture, and to bind parts looſened, and to ſtrengthen parts weakned.*

TAke of *Bitumen Judaicum* two pound, of *Bitumen Apollonii* two pound, of the pureſt part of Frankincenſe ſix ounces, of *Bdellium Arabicum* two ounces, of Deers ſewet two pound, of *Populeum* two ounces, of *Galbanum* two ounces, of the drops of *Storax* two ounces, of common Wax two pound, of *Reſin Gabial* one pound, of *Viſcus Italicus* three ounces, of *Apoxima* two ounces, of the juyce of Hyſop two ounces, of the drops of *Armoniack* two ounces, of Pitch one pound.

Another Cauſtick uſed by Pelagonius, *to dry up Swellings, Bladders, Wind-gals and Splents in the legs and joynts.*

TAke Virgin Wax one pound, of Roſin two pound and a half, of *Galbanum* three ounces, of *Aſphaltum Judaicum* two pound, of Mirrhe ſecondary two pound, of *Bitumen* one pound, of Armoniack ſix ounces, of *Coſtus* ſix ounces. Boyl all theſe things together in an earthen pot, ſaving the *Aſphaltum*, Armoniack and Coſtum, which being firſt ground like fine flowre, muſt be added unto the other things, and after that they have been boyled and cooled, and then boiled all together again, and well ſtirred, ſo as they may be incorporated together, and made all one ſubſtance. Theſe kindes of Emplaiſters or Ointments ought in my judgement to be ſo called, as I ſaid before, rather binding charges, then Cauſtick medicines, becauſe there be no ſuch extreme Corroſive or burning ſimples in theſe, as are before recited. Notwithſtanding I refer my judgment to thoſe that be better learned, and ſo end for being over tedious. For if I would, I could take very good occaſion here to ſpeak of divers other medicines, whereof ſome are called *Anodyna*, eaſing pain and grief. *Martin* calleth them Linoges, which are made of Linſeed, Camomile, ſoft greaſe and ſuch like things, as are hot in the firſt degree; ſome again are called *Narcotica*, that is to ſay, aſtonying or bringing to ſleep, as thoſe that are made of *Opium*, *Mandragora*, *Poppie*, and ſuch like cold and groſſe things. And ſome are called *Sarcotica*, that is, Breeding fleſh, as Barly flowre and Frankincenſe. And many other kinds of Emplaiſters, Ointments, waters and ſalves, which would occupy a book of no ſmall volum, to be written hereafter by ſome other perhaps, if not by my ſelf. And in the mean time, let this that I may have already written ſuffice.

Of the Anticor.

Markham.

AN Anticor cometh of ſuperfluity of evill-bloud or ſpirit in the arteries, and alſo of inflamation in the liver, which is ingendered by means of too choiſe keeping, and overmuch reſt, which choaketh the vital power, and occaſions unnatural ſwellings in the breſt, which if they aſcend upward and come into the neck, they are inſtantly death. The cure whereof is in this ſort; Let him bleed ſo as he may bleed abundantly, then with a ſharp knife in divers places cut the ſwelling: which done, ſet a cupping-glaſſe thereon, and cup it till the glaſſe filled with foul water fall away it ſelf; then give the Horſe to drink three mornings together a pinte of Malmeſie well ſtirred with Cinamon, Licoras, and a little Bezar ſtone, and during his ſickneſs, let his drink be warmed, and mingled with either Bran or Malt.

Of the Cords.

THe Cord is a diſeaſe that maketh the Horſe ſtumble, and many times fall, and they appear in a Horſes fore-legs: this is the cure thereof; Take a ſharp knife, and cut a ſlit even at the top of his noſe, juſt with the point of the griſtle, open the ſlit being made, and you ſhall perceive a white ſtring, take it up with a Boars tooth, or ſome crooked bodkin, and cut it in ſunder, then ſtitch up the ſlit and anoint it with Butter, and the Horſe doubtleſs ſhall be recovered.

Of the Millets.

THe Millets is a grief that appeareth in the Fetlocks behind, and cauſeth the hair to ſhed, three or four inches long, and a quarter of an inch in breadth, like as it were bare and ill to cure. But thus is the cure; Firſt waſh it well with wrong lie, and rub it till it bleed, then binde unto it Hony, unſleck't Lime, and Deers ſewet, boyled and mingled together, this do for the ſpace of a week, and it ſhall be whole.

Of the Serew.

A Serew is a foul ſorance, it is like a Splent, but it is a little longer, and is moſt commonly on the outſide of the fore-leg, as the Splent is on the inſide. The cure is thus; Take two ſpoonfuls of ſtrong Wine Vinegar, and one ſpoonful of good Sallet Oyl, mingle them together, and every morning beſtow one hour in rubbing the ſorance with it altogether downward till it be gone, which will not be long in going.

The medicines ariſing out of Horſes.

Pliny.

THe *Grecians* have written nothing at all concerning wilde Horſes, becauſe in their Countrey there was none of them uſually bred or gotten: yet notwithſtanding the ſame we ought to think that all medicines or any other things, which do proceed from them, are more ſtrong in operation, and have in them greater force and power then any common Horſes have, as it falleth out in all ſorts of other beaſts.

The bloud of a Horſe (as *Pliny* affirmeth) doth gnaw into dead fleſh with a putrifactive force; the ſame vertue hath the blood of Mares, which have been covered by Horſes: Alſo the bloud of a Horſe (but eſpecially of one which is a breeder) doth very much make and help againſt impoſtumes, and ſmall bunches which do ariſe in the fleſh. Moreover it is ſaid that the bloud of a young Aſſe is very good againſt the Jaundies, and the over-flowing of the gall, as alſo the ſame force and effect is in the bloud of a young Horſe. The Horſe-leaches do uſe the bloud of Horſes for divers diſeaſes which are incident unto them, both by anointing or rubbing the outward parts, as alſo within their bodies.

Theomneſtus.

Vegetius.

Furthermore if one do cut the veins of the palat of a Horſes mouth, and let it run down into his belly, it will preſently deſtroy and conſume the maw or belly-worms, which are within him. When a Horſe is ſick of the Peſtilence, they draw bloud out of the veins in his ſpurring place, and mingling the ſame upon a ſtone with Salt, make him to lick it up. The bloud of a Horſe is alſo mingled with other medicines, and being anointed upon the armes and ſhoulders of men or beaſts, which are broken or out of joynt, doth very much help them. But a Horſe which is weary or tyred, you muſt cure after this manner; Firſt, draw ſome bloud out of his matrix or womb, and mingle it with Oyl and Wine, and then put it on the fire till it be luke-warm, and then rub the Horſe all over againſt the hairs.

Pliny.

If the ſinews of Horſes do wax ſtiffe or ſhrink in together, it is very neceſſary that the ſick parts ſhould be anointed with the hot bloud which doth proceed from him, for Horſes alſo which are fed in the field uſe their fleſh and dung, againſt the biting and ſtinging of Serpents.

Furnerius.

We do alſo finde that the fleſh of Horſes being well boiled is very medicinable for divers diſeaſes. Moreover it is very uſuall and common with the women of *Occitania* to take the fat or greaſe of Horſes to anoint their heads to make the hair of their heads multiply and increaſe; and certain later Phyſitians do mingle the marrow of a Horſe with other Ointments for a remedy againſt the Cramp.

The marrow of a Horſe is alſo very good to looſen the ſinews which are knit and faſtned together, but firſt let it be boyled in Wine, and afterwards made cold, and then anointed warmly either by the fire or Sun. If a Horſe do labor in that kinde of impoſtume which they vulgarly call the Worm, either any where as well as in the noſe, they do open the skin with a ſearing iron, and do ſprinkle Verdigreaſe within the Horſes mouth being brent, and being added thereunto ſometimes the ſeed of Henbane.

The teeth of a male Horſe not gelded, or by any labour made feeble, being put under the head, or over the head of him that is troubled or ſtarteth in his dream, doth withſtand and reſiſt all unquietneſs which in the time of his reſt might happen unto him. *Pliny* alſo doth aſſent that flowre doth heal the ſoreneſs of a Horſes teeth and gums, and the clefts and chinks of a Horſes feet. *Albertus.*

The teeth alſo of a Horſe is very profitable for the curing of the Chilblanes which are rotten and full of corruption when they are ſwollen full ripe. *Marcellus* ſaith, that the tooth of a Horſe being beaten and cruſhed into very ſmall powder, and being ſprinkled upon a Mans genital doth much profit and very effectually help him: but the teeth which were firſt ingendred in a Horſe, have this virtue in them, that if they ſhould touch the teeth of Man or Woman who are moleſted and grieved with the tooth-ach, they ſhall preſently find a final end of their pain: if in the like manner a childe do kiſſe the noſe or ſnowt of a Horſe, he ſhall never feel pain in his teeth, neither at any time ſhall the childe be bitten by the Horſe. *Marcellus.* *Sextus.*

The teeth which do firſt of all fall from Horſes, being bound or faſtned upon children in their infancy, do very eaſily procure the breeding of the teeth, but with more ſpeed and more effectually if they have never touched the ground, wherefore the Poet doth very well apply theſe Verſes, ſaying;

Collo igitur molli dentes nectentur equini,
Qui prima fuerint pullo creſcente caduci.

It is alſo ſaid, that if the hair of a Horſe be faſtned unto the Houſe of a mans enemy, it will be a means that neither little flies or ſmall gnats ſhall flie by his dwelling place or aboad. The tongue of a Horſe being never accuſtomed unto wine, is a moſt preſent and expedient medicine to allay or cure the milt of a Man or Woman (as *Cæcilius Bion* reporteth unto us, that he learned it of the *Barbarians.*) But *Marcellus* ſaith, that the Horſe tongue ought to be dryed and beaten into ſmall powder, and put into any drink, except wine only, and forthwith it will ſhew the commodity which riſeth thereupon, by eaſing either Man or Woman, of the pain of the Spleen or Milt: divers alſo do think that a Horſes tongue uſed after this manner, is a good means or preſervative againſt the biting of *Serpents* or any other venemous creatures. *Pliny.*

But for the curing of any ſores or griefs in the inward parts, the genital of a Horſe is moſt of all commended: for as *Pliny* ſuppoſeth, this genital of a Horſe is very medicinable for the looſing of the belly, as alſo the bloud, marrow, or liver of a Goat, but theſe things do rather dry up and cloſe the belly (as before we have taught) concerning the Goat. *Pliny.*

In the heart of Horſes there is found a bone, moſt like unto a Dogs tooth, it is ſaid that this doth drive away all grief or ſorrow from a mans heart, and that a tooth being pulled from the cheeks or jaw bones of a dead Horſe doth ſhew the full and right number of the ſorrowes of the party ſo grieved. The duſt of a Horſe hoof anointed with Oyl and Water, doth drive away impoſtumes and little bunches which riſe in the fleſh, in what part of the body ſoever they be: and the duſt of the hoof of an Aſſe anointed with Oyl, Water and hot urine, doth utterly expell all Wens and kernels which do riſe in the neck, arme-holes, or any other part of the body, of either man or woman. *Pliny.*

The genital of a gelded Horſe dryed in an Oven, beaten to powder, and given twice or thrice in a little hot broth to drink unto the party grieved, is by *Pliny* accounted an excellent and approved remedy for the ſeconds of a woman. The foam of a Horſe, or the duſt of a Horſe hoof dryed, is very good to drive away ſhamefaſtneſs, being anointed with a certain titulation. The ſcrapings of the Horſes hoofs being put in wine, and poured into the Horſes noſtrils, do greatly provoke his urine. The aſhes alſo of an Horſes hoof, being mingled with wine and water, doth greatly eaſe and help the diſeaſe called the Colick or Stone: as alſo by a perfume which may be made by the hoofs of Horſes being dryed, a childe which is ſtill born is caſt out. *Marcellus.*

The milk of Mares is of ſuch an excellent virtue, that it doth quite expell the poiſon of the Sea-hare, and all other poiſon whatſoever: drink alſo mingled with Mares milk, doth make the body looſe and laxable. It is alſo counted an excellent remedy againſt the falling ſickneſs, to drink the ſtones of a Boar out of a Mares milk or water. If there be any filth or matter lying in the matrice of a woman, let her take Mares milk boiled and throughly ſtrained, and preſently the filth and excrements will void clean away. If ſo be that a Woman be barren and cannot conceive, let her then take Mares milk (not knowing what it is) and let her preſently accompany with a man, and ſhe will conceive. The milk of a Mare being drunk doth aſſwage the labor of the matrice, and doth cauſe a ſtill childe to be caſt forth. If the ſeed of Henbane be beaten ſmall and mingled with Mares milk, and bound with a Harts skin, ſo that it may not touch the ground, and faſtened or bound to a woman, they will hinder her conception. *Hippocrates.*

The thinneſt or lateſt part of the milk of a Mare, doth very eaſily, gently, and without any danger purge the belly. Mares milk being dayly anointed with a little Hony doth without any pain or puniſhment take away the wounds of the eyes being new made. Cheeſe made of Mares milk doth repreſſe and take away all wringings or aches in the belly, whatſoever. If you anoint a comb with the foam of a Horſe, wherewith a young man or youth doth uſe to comb his head, it is of ſuch force as it will cauſe the hair of his head neither to encreaſe, or any whit to appear. The foam of a

Marcellus.
Raſis.
Albertus.

Horſe is alſo very much commended for them which have either pain or difficulty of hearing in their ears, or elſe the duſt of Horſe dung being new made and dryed, and mingled with Oyl of Roſes. The grief or ſoreneſs of a mans mouth or throat, being waſhed or anointed with the foam of a Horſe which hath been fed with Oates or Barly, doth preſently expell the pain of the ſoreneſs, if ſo be that it be two or three times waſhed over with the juyce of young or green Sea-crabs beaten ſmall together; but if you cannot get the Sea-crabs which are green, ſprinkle upon the grief the ſmall powder which doth come from dryed Crabs which are baked in an Oven made of Braſſe, and afterward waſh the mouth where the pain is, and you ſhall finde preſent remedy. The foam of a Horſe being three or four times taken in drink, doth quite expell and drive away the Cough. But *Marcellus* doth affirm that whoſoever is troubled with the Cough, or conſumption of the lungs, and doth drink the foam of a Horſe by it ſelf alone without any drink, ſhall finde preſent help and remedy: but as *Sextus* ſaith, the Horſe will preſently die after it. The ſame alſo being mingled with hot water, and given to one who is troubled with the ſame diſeaſes, being in manner paſt all cure, doth preſently procure health, but the death of the Horſe doth inſtantly enſue. The ſweat of a Horſe being mingled with Wine, and ſo drunk, doth cauſe a woman which is very big and in great labor, to caſt a ſtill childe.

Raſis.
Ruſſius.

The ſweat of any Beaſt, (but as *Albertus* ſaith only of a Horſe) doth breed wind in a man or womans face, being put thereupon, and beſides that, doth bring the Squince or Squincy, as alſo a filthy ſtinking ſweat. If Swords, Knives, or the points of Spears when they are red fire hot, be anointed with the ſweat of a Horſe, they will be ſo venemous and full of poyſon, that if a man or woman be ſmitten or pricked therewith, they will never ceaſe from bleeding as long as life doth laſt. If a Horſe be wounded with an Arrow, and have the ſweat of another Horſe, and bread which hath been brent, being mingled in mans urine, given him to drink, and afterwards ſome of the ſame being mingled with Horſe greaſe put into the wound, it will in ſhort time procure him eaſe and help. There are ſome which will aſſure us, that if a man be troubled with the belly worms, or have a Serpent crept into his belly, if he take but the ſweat of a Horſe being mingled with his urine, and drink it, it will preſently cauſe the Worms or the Serpent to iſſue forth.

Dioſcorides.
Pliny.
Marcellus.

The dung of a Horſe or Aſſe which is fed with graſſe, being dryed and afterward dipped in wine, and ſo drunk, is a very good remedy againſt the bitings and blowes of Scorpions. The ſame medicines they do alſo uſe, being mingled with the genital of a Hare in Vinegar, both againſt the Scorpion, and againſt the Shrew-mouſe. The force is ſo great in the poyſon of a mad Dog or Bitch, that his pargeted Urine doth much hurt, eſpecially unto them that have a ſore boil upon them; the chiefeſt remedy therefore againſt the ſame is the dung of a Horſe mingled with Vinegar, and being warmed put into the ſcab or ſore. The dung as well of Aſſes as of Horſes, either raw, cold, or burned, is excellent good againſt the breaking forth or iſſues of the bloud.

Ruſſius.
Pelagonius.

The dung of Horſes or Aſſes being new made or warm, and ſo clapped and put to a green wound, doth very eaſily and ſpeedily ſtanch the bleeding. If the vein of a Horſe be cut, and the bloud do iſſue out in too much aboundance, apply the dung of the ſame Horſe unto the place where the vein is cut, and the bleeding will preſently ceaſe, wherefore the Poet doth very well expreſs it in theſe Verſes following;

Sive fimus manni cum teſtis uritur ovi,
Et reprimit fluidos miro medicamine curſus.

Albertus.
Æſculapius.
Marcellus.

The ſame doth alſo very well drive away the corruption in mens body which doth cauſe the bloud to ſtinke if it be well and juſtly applyed unto the corrupt place. The ſame alſo being mingled with Oyl of Roſes, and new made, and ſo applyed unto the ears, doth not only drive away the pain, but alſo doth very much help for hearing: There is another remedy alſo for the hearing, which is this, to take the dung of a Horſe which is new made, and to make it hot in a furnace, and then to pour it on the middle of the head againſt the *Uvula*, and afterward to tie the aforeſaid dung in a linnen or woollen cloth unto the top of the head in the night time.

Pliny.
Sextus.

The dung of a young Aſſe when he is firſt foaled, given in Wine to the quantity or magnitude of a Bean, is a preſent remedy for either man or woman who is troubled with the Jaundice or the overflowing of the gall: and the ſame property hath the dung of a young Horſe or Colt when he is new foaled. But the dung of an old Horſe, being boiled in fair water, and afterward ſtrained and ſo given to the party to drink, who is troubled with Water in his belly or ſtomach, doth preſently make vent for the ſame.

Empiricus.

There is alſo an excellent remedy againſt the Colick and Stone, which is this, to take a handfull of the dung of a Horſe which hath been fed with Oates and Barly, and not with graſſe, and mingle very well it with half a pinte of Wine, all which I do gueſſe will amount unto the weight of eighteen ounces, and then boyl them all together untill half of them be boyled or conſumed away, and then drink the ſame by little and little until it be all drunk up, but it will be much better for the party that is troubled to drink it up all together if he be able.

Marcellus.

There is moreover a very good and eaſie way by Horſe dung to cure the Ague or Quartern Fever, which is thus, to burn the foreſaid dung, and to mingle the very duſt it ſelf thereof in old wine, and then beat it unto ſmall powder, and ſo give it unto the party who is troubled therewith, to drink or ſuck without any water in it, and this will very ſpeedily procure eaſe and help. If there woman ſuppoſeth her childe which is in her womb to be dead, let her drink the milt or ſpleen of a Horſe in ſome ſweet water, not to the ſmell, but to the taſte, and ſhe will preſently caſt the childe. The ſame virtue are in the perſume which is made of a Horſes hoof, as alſo in the dry dung of a Horſe: There is ſome which do uſe this means againſt the falling ſickneſs, or the ſickneſs called Saint *Johns evill*, that is to mingle the water or urine which a Horſe doth make with the water which cometh from the Smiths trough, and ſo to give it the party in a potion There is a very good help for Cattel which do avoid bloud through their Noſtrils or ſecret parts, which is this, to make a paſte of Wheat-flowre, and beat it and mingle it together with Butter and Egges in the urine of a Horſe which hath lately drunk, and afterward to give that paſte or poultes baked even to aſhes to the beaſt ſo grieved.

Pliny.

Empiricus.

To provoke urine when a mans yard is ſtopt, there is nothing ſo excellent as the dung or filth which proceedeth from the urine which a Horſe hath made, being mingled with wine, and then ſtrained, and afterwards poured into the Noſtrils of the party ſo vexed.

Dioſcorides.

Galen.

There are certain Tetters or Ring-wormes in the knees of Horſes, and a little above the hoofs in the bending of theſe parts, there are indurate and hardned thick skins, which being beaten into ſmall powder and mingled with Vinegar, and ſo drunk, are an exceeding good preſervative againſt the Falling-ſickneſs: the ſame is alſo a very good remedy for them which are bitten with any wilde Beaſt whatſoever. By the Tetter or Ring-worm which groweth in a Horſes knees or above the hoofs, beaten and mingled with Oyle, and ſo poured in the ears, the teeth of either man or woman which were weak and looſe, will be made very ſtrong and faſt. The aforeſaid Tetter, without any mingling with Oyl, doth alſo heal and cure the head-ache and Falling-ſickneſs, in either man or woman. The ſame alſo being drunk out of Clarret Wine or Muſcadel for forty dayes together, doth quite expell and drive away the Colick and Stone. If that any man do get and put up the ſhooe of a Horſe being ſtruck from his hoof as he travelleth in his pace (which doth many times happen) it will be an excellent remedy for him againſt the ſobbing in the ſtomach called the Hicket.

Pliny.

Magi.

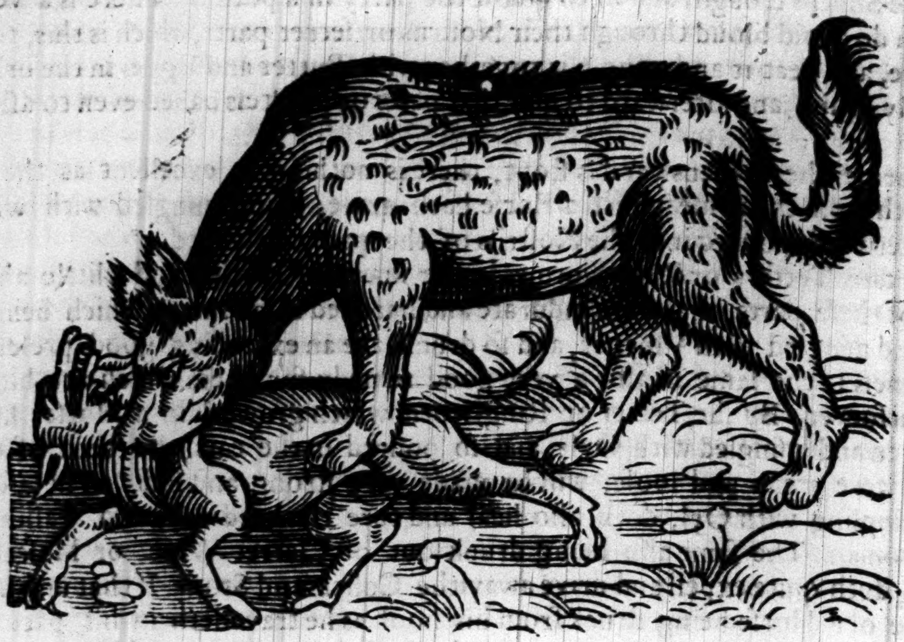
Of the *HYÆNA*, and the divers kinds thereof.

The names and other general accidents

WE are now to diſcourſe of a Beaſt whereof it is doubtful whether the names or the kinds thereof be more in number, and therefore to begin with the names, it ſeemeth to me in general, that it is the ſame Beaſt which is ſpoken of in Holy Scripture, and called *Zeeb-ereb*, and *Araboth*, *Zephan*. 3. *Principes urbis Hieroſolymæ velut Leones rugientes, judices ejus ſimiles ſunt lupis Veſpertinis qui oſſa non relinquunt ad diluculum*: Their Princes are roaring Lions, and their Judges are like to night-wolves which leave not the bones till the morning, as it is vulgarly tranſlated. In like ſort *Jer*. 5. calleth them *Zeeb-Araboath*, Wolves of the wilderneſs, and the Prophet *Habakkuk*, Cap. 1. uſeth the word *Zeeb-ereb*, Wolves of the evening. By which it is made eaſie to conſider and diſcuſſe what kinde of Beaſts this Hyæna may be deemed; for the Hyæna, as I ſhall ſhew afterward, is a *Greek* word. And firſt of all I utterly ſeclude all their opinions, which tranſlate this word *Arabian* Wolves, for the *Hebrew* notes cannot admit ſuch a verſion or expoſition: But ſeeing we read in *Oppianus* and *Tzetzes*, that there are kinds of Wolves which are called *Harpages*, more hungry then the reſidue, living in Mountains, very ſwift of foot, and in the Winter time, coming to the gates of Cities, and devouring both fleſh and bones of every living creature they can lay hold on, eſpecially Dogs and men, and in the morning go away again from their prey, I take them to be the ſame Beaſts which the *Grecians* call *Hyænæ*, which is alſo the name of a Fiſh much like in nature hereunto. It is alſo called *Glanos*, and by the *Phrygians*, and *Bythinians*, *Ganos*, and from one of theſe came the *Illyrian* or *Sclavonian* word *San*, and it ſeemeth that the *Grecians* have given it a name from Swine, becauſe of the griſtles growing on the back, for an Hyæna can have no better derivation then from *Hus* or *Hyn*. *Julius Capitolinus* calleth it *Belbus* in *Latin*, in the ſame place where he recordeth that there were *decem Belbi ſub Gordiano*, ten *Hyænaes* in the days of *Gordianus*: And the reaſon of this name is not improbably derived from *Belba* a City of *Egypt*. *Pincianus* a learned man calleth it *Grabthier*, becauſe it hunteth the Sepulchres of the dead. *Albertus* in ſtead of Hyæna, calleth it *Iona*. The *Arabians* call it *Kabo*, and *Zabo*, or *Ziba* and *Azaro*. I take it alſo to be the ſame Beaſt which is called *Lacta*, and *Ana*, and *Zilio*, becauſe that which is reported of theſe, is true in the Hyæna; they frequent graves, having ſharp teeth and long nails, being very fierce, living together in herds and flocks, and loving their own kinde moſt tenderly, but moſt pernicious and hateful to all other, being very crafty to ſet upon a fit prey, defending it ſelf from the rage of ſtronger Beaſts by their teeth and nails, or elſe by flight or running away. Wherefore we having thus expreſſed the name, we will handle the kinds, which I finde to be three, the firſt *Hyæna*, the ſecond *Papio* or *Dabuh*, the third *Crocuta*, and *Leucrocuta*, whereunto by conjecture we may add a fourth, called *Mantichora*.

Albertus.

The *Figure* of the firſt *HYÆNA.*



Hieronymus.
Ariſtotle.
Oppianus.
The ſeveral parts.
Pliny.
Solinus.
Albertus.

THis firſt and vulgar kinde of Hyæna, is bred in *Africk* and *Arabia*, being in quantity of body like a Wolfe, but much rougher haired, for it hath briſtles like a Horſes mane all along his back, and in the middle of his back it is a little crooked or dented, the colour yellowiſh, but beſpeckled on the ſides with blew ſpots, which make him look more terrible, as if it had ſo many eyes. The eyes change their colour at the pleaſure of the beaſt, a thouſand times a day, for which cauſe many ignorant writers have affirmed the ſame of the whole body, yet can he not ſee one quarter ſo perfectly in the day as in the night; and therefore he is called *Lupus veſpertinus*, a Wolf of the night. The skilful *Lapidariſts* of *Germany* affirm that this beaſt hath a ſtone in his eyes (or rather in his head) called *Hyena* or *Hyænius*; but the Ancients ſay, that the apple or puple of the eye is turned into ſuch a ſtone, and that it is indued with this admirable quality, that if a man lay it under his tongue, he ſhall be able to foretel and propheſie of things to come; the truth hereof I leave to the reporters. Their back-bone ſtretcheth it ſelf out to the head, ſo as the neck cannot bend except the whole body be turned about, and therefore whenſoever he hath occaſion to wry his neck, he muſt ſupply that quality by removing of his whole body.

Ariſtotle.
Whether they change ſexes yearly.
Ovid.
Ælianus.

This Beaſt hath a very great heart, as all other Beaſts have which are hurtful, by reaſon of their fear. The genital member is like a Dogs or Wolfs; and I marvail upon what occaſion the writers have been ſo poſſeſſed with opinion that they change ſexes, and are ſometime male and another female, that is to ſay, male one year, and female another, according to theſe Verſes,

Si tamen eſt aliquid miræ novitatis in iſtis
Alternare vices, & quæ modo fœmina tergo
Paſſa marem eſt, nunc eſſe marem miremur Hyænam.

Both kindes have under their tails a double note or paſſage, in the male there is a ſciſſure like the ſecrets of a female, and in the female a bunch like the ſtones of the male, but neither one nor other inward, but only outward; and except this hath given cauſe of this opinion, I cannot learn the ground thereof: only *Orus* writeth, that there is a Fiſh of this name which turneth ſex, and peradventure ſome men hearing ſo much of the Fiſh, might miſtake it more eaſily for the four footed Beaſt, and apply it thereunto.

Their procreation.

Theſe engender not only among themſelves, but alſo with Dogs, Lions, Tygers, and Wolves, for the *Ethiopian* Lion being covered with an Hyæna, beareth the *Crocuta*. The *Thoes*, of whom we ſhall ſpeak more afterward, are generated betwixt this Beaſt and a Wolf: and indeed it is not without reaſon that God himſelf in holy Scripture calleth it by the name of a *Veſpertine Wolfe*, ſeeing it reſembleth a Wolf in the quantity, colour, in voracity and gluttoning in of fleſh, in ſubtilty to overcome Dogs and Men, even as a Wolf doth ſilly Sheep. Their teeth are in both Beaſts like ſawes, their genitals alike, and both of them being hungry, range and prey in the night ſeaſon.

This

The diſpoſition and natural properties of this beaſt. *Pliny* *Solinus.*

This is accounted a moſt ſubtill and crafty beaſt, according to the alluſive ſaying of *Mantuan* ;

> *Eſt in eis Pietas Crocodili, aſtutia Hyænæ.*

And the female is far more ſubtill then the male, and therefore more ſeldom taken, for they are afraid of their own company. It was conſtantly affirmed that among eleven Hyænaes, there was found but one female; it hath been believed in ancient time that there is in this beaſt a Magical or enchanting power, for they write, that about what creature ſo ever he goeth round three times, it ſhall ſtand ſtone-ſtill, and not be able to move out of the place: and if Dogs do but come within the compaſſe of their ſhadow and touch it, they preſently loſe their voice: and that this ſhe doth moſt naturally in the full moon; for although the ſwiftneſs or other opportunity of the Dogs helpeth them to flie away from her, yet if ſhe can but caſt her ſhadow upon them, ſhe eaſily obtaineth her prey. She can alſo counterfeit a mans voice, vomit, cough and whiſtle, by which means in the night time ſhe cometh to Houſes or folds where Dogs are lodged, and ſo making as though ſhe vomited or elſe whiſtling, draweth the Dogs out of doors to her, and devoureth them. Likewiſe her nature is, if ſhe finde a Man or a Dog on ſleep, ſhe conſidereth whether ſhe or he have the greater body, if ſhe, then ſhe falleth on him, and either with her weight, or ſome ſecret work of nature by ſtretching her body upon him killeth him, or maketh him ſenſeleſſe; whereby without reſiſtance ſhe eateth off his hands: but if ſhe finde her body to be ſhorter and leſſer then his, then ſhe taketh her heels and flyeth away.

Ælianus. *Philes.* *Solinus.* *Ælianus.*

If a Man meet with this Beaſt, he muſt not ſet upon it on the right hand, but on the left, for it hath been often ſeen, that when in haſte it did run by the Hunter on the right hand, he preſently fell off from his Horſe ſenſeleſs; and therefore they that ſecure themſelves from this beaſt, muſt be careful to receive him on the left ſide, that ſo he may with more facility be taken, eſpecially (ſaith *Pliny*) if the cords wherein he is to be enſnared be faſtened with ſeven knots. *Ælianus* reporteth of them, that one of theſe coming to a Man aſleep in a Sheep-cot, by laying her left hand or fore-foot to his mouth, made or caſt him into a deed-ſleep, and afterward digged about him ſuch a hole like a grave, as ſhe covered all his body over with earth, except his throat and head, whereupon ſhe ſat untill ſhe ſuffocated and ſtifled him; yet *Philes* attributeth this to her right foot. The like is attributed to a Sea-calf, and the fiſh Hyæna, and therefore the old Magicians by reaſon of this exanimating property, did not a little glory in theſe beaſts, as if they had been taught by them to exerciſe Diabolical and præſtigious incantation, whereby they deprived men of ſenſe, motion, and reaſon. They are great enemies to men, and for this cauſe *Solinus* reporteth of them, that by ſecret accuſtoming themſelves to houſes or yards, where Carpenters or ſuch Mechanicks work, they learn to call their names, and ſo will come being an hungred and call one of them with a diſtinct and articulate voice, whereby he cauſeth the man many times to forſake his work and go to ſee the perſon calling him; but the ſubtile Hyæna goeth further off, and ſo by calling allureth him from help of company, and afterward when ſhe ſeeth time devoureth him, and for this cauſe her proper Epithet is *Æmula vocis*, Voyce-counterfeiter.

Texsor.

Ælianus. Their enmity with other beaſts. *Gius.*

There is alſo great hatred betwixt a *Pardall* and this Beaſt, for if after death their skins be mingled together, the hair falleth off from the *Pardals* skin, but not from the Hyænaes; and therefore when the *Egyptians* deſcribe a ſuperiour man overcome by an inferiour, they picture theſe two skins; and ſo greatly are they afraid of Hyænaes, that they run from all beaſts, creatures and places, whereon any part of their skin is faſtened. And *Ælianus* ſaith, that the *Ibis* bird which liveth upon Serpents, is killed by the gall of an Hyæna.

The natural uſe of their skins. *Palladius.* *Raſis.* *Plutarch.*

He that will go ſafely through the mountains or places of this beaſts abode, *Raſis* and *Albertus* ſay, that he muſt carry in his hand a root of Colloquintida. It is alſo believed that if a man compaſſe his ground about with the skin of a Crocodile, an Hyæna, or a Sea-calf, and hang it up in the gates or gaps thereof, the fruits encloſed ſhall not be moleſted with hail or lightning. And for this cauſe Mariners were wont to cover the tops of their ſails with the skins of this Beaſt, or of the Sea-calf: and *Horus* ſaith, that a man clothed with this skin may paſſe without fear or danger through the middeſt of his enemies: for which occaſion the *Egyptians* do picture the skin of an Hyæna to ſignifie fearleſs audacity. Neither have the Magicians any reaſon to aſcribe this to any præſtigious enchantment, ſeeing that a Fig-tree alſo is never oppreſſed with hail nor lightening.

Cælius.

And the true cauſe thereof is aſſigned by the Philoſophers to be the bitterneſs of it; for the influence of the heavens hath no deſtructive operation upon bitter, but upon ſweet things, and there is nothing ſweet in a Fig-tree, but only the fruit. Alſo *Columella* writeth, that if a man put three buſhels of ſeed grain into the skin of this Beaſt, and afterward ſow the ſame, without all controverſie it will ariſe with much encreaſe. *Gentian* worn in an Hyænaes skin ſeven dayes inſtead of an Amulet, is very ſoveraign againſt the biting of mad dogs. And likewiſe if a man hold the tongue of an Hyæna in his hand, there is no Dog that dareth to ſeize upon him. The skin of the forehead, or the bloud of this Beaſt, reſiſteth all kinde of Witchcraft and Incantation. Likewiſe *Pliny* writeth, that the hairs layed to Womens lips, maketh them amorous. And ſo great is the vanity of the Magicians, that they are not aſhamed to affirm, that by the tooth of the upper jaw of this Beaſt on the right ſide bound unto a mans arme or any part thereof, he ſhall never be moleſted with Dart or Arrow.

Likewiſe they ſay, that by the genital of this beaſt, and the Article of the back-bone which is called *Atlantios*, with the skin cleaving unto it preſerved in a Houſe, keepeth the family in continual concord, and above all other, if a man carry about him the ſmalleſt and extreme gut of his intrails, he ſhall not only be delivered from the Tyrany of the higher powers, but alſo foreknow the ſucceſſe and event of his petitions and ſutes in Law.

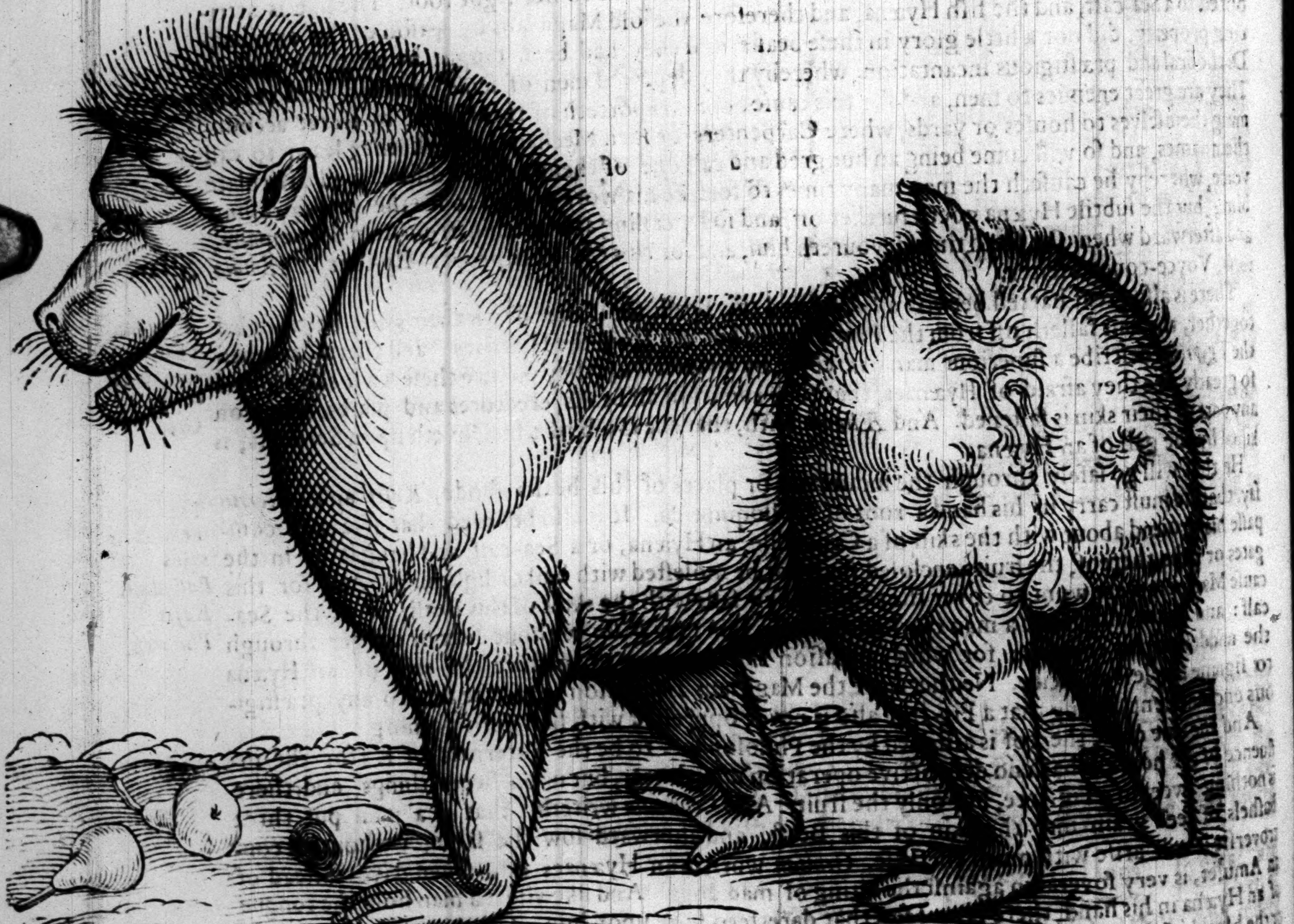
Actuarius.
Zoroaſtres.

If his left foot and nails be bound up together in a Linnen bag, and ſo faſtened unto the right arme of a Man, he ſhall never forget whatſoever he hath heard or knoweth. And if he cut off the right foot with the left hand and wear the ſame, whoſoever ſeeth him ſhall fall in love with him, beſides the Beaſt. Alſo the marrow of the right foot is profitable for a Woman that loveth not her Husband, if it be put into her noſtrils. And with the powder of the left claw, they which are anointed therewith it being firſt of all decocted in the bloud of a Weaſil, do fall into the hatred of all men. And if the nails of any beaſt be found in his maw after he is ſlain, it ſignifieth the death of ſome of his hunters. And to conclude, ſuch is the folly of the Magicians, that they believe the tranſmigration of ſouls, not only out of one man into another, but alſo of man into beaſts. And therefore they affirm, that their men *Symis* and religious votaries departing life ſend their ſouls into Lions, and the religious women into Hyænaes.

Porphyrius.

The excrements or bones coming out of the excrements when it is killed, are thought to have virtue in them againſt Magical incantations. And *Democritus* writeth, that in *Cappadocia* and *Meſia*, by the eating of the hearb *Therionarcha*, all wilde beaſts fall into a deadly ſleep, and cannot be recovered but by the aſperſion of the urine of this beaſt. And thus much for the firſt kinde, now followeth the ſecond.

The Second kinde of *HYÆNA*, called *Papio* or *Dabuh*.



The Region and quantity.

THis Beaſt aboundeth near *Cæſarea* in quantity reſembling a Fox, but in wit and diſpoſition a Wolf; the faſhion is, being gathered together, for one of them to go before the flock ſinging or howling, and all the reſt, anſwering him with correſpondent tune: In hair it reſembleth a Fox and their voices are ſo ſhrill and ſounding, that although they be very remote and far off, yet do men hear them as if they were hard by: And when one of them is ſlain, the reſidue flock about his carcaſe, howling like as they made funeral lamentation for the dead.

The lamentation for the dead.

When they grow to be very hungry by the conſtraint of famine they enter into Graves of men, and eat their dead bodies, yet is their fleſh in *Syria*, *Damaſcus*, and *Berutus*, eaten by men. It is called alſo *Randelos*, *Abeneum*, *Aldabha*, *Dabba*, *Dabah*, and *Dhoboba*, which are derived from the *Hebrew* word *Deeb*, or *Deeba*: *Dabuh* is the *Arabian* name, and the *Africans* call him *Leſeph*, his feet and legs are like to a mans, neither is it hurtful to other Beaſts being a baſe and ſimple creature. The colour of it is like a Bear, and therefore I judge it to be *Arctocyon*, which is ingendered of a Bear and a Dog, and they bark only in the night time. They are exceedingly delighted with Muſick, ſuch as is uſed by Pipes and Timbrels, wherefore when the Hunters have found out their caves, they ſpread their nets and ſnares at the mouth thereof, and afterwards ſtriking up their inſtruments, the ſilly beaſt inconſiderate of all fraud cometh out and is taken, the picture hereof is formerly expreſſed. And there was one of theſe in *Germany* in the year of our Lord 1551. at the City *Auſpurg* to be ſeen publickly. It was brought out of the Wilderneſs of *India*, it did eat Apples, Pears, and other fruits of trees, and alſo bread, but eſpecially it delighted in drinking of Wine: when it was an hungry, it climed up into trees, and did ſhake the boughs to make the fruit fall; and it is reported, that when it is in the tree, it feareth not an Elephant, but yet avoideth all other Beaſts which it is not able to reſiſt. It was of a chearful nature, but then eſpecially when it ſaw a woman, whereby it was gathered that it was a luſtful Beaſt. His four feet were divided like a mans fingers; and the female ever bringeth forth twins, a male and a female together.

Albertus. *Bellunenſis.* The ſeveral names.

The parts and natural diſpoſition.

The manner of their taking.

It continually holdeth up his tail, ſhewing the hole behinde, for at every motion it turneth that, as other Beaſts do their head. It hath a ſhort tail, and but for that, I ſhould judge it to be a kinde of Ape; I know not whether it be that kinde of little Wolf which *Bellonius* ſaith aboundeth in *Cilicia* and *Aſia*, which in the night time raveneth and cometh to the bodies of ſleeping men, taking away from them their boots, caps, or bridles: when they are ſhut up in the night time they bark like Dogs; but being at liberty they live two hundred in a company, ſo that there is no Beaſt ſo frequent as theſe in all *Cilicia*.

As for the golden Wolf ſpoken of by *Oppianus*, I defer the deſcription of it to his due place, for they are not all of one colour: and thus much ſhall ſuffice for the ſecond kinde of *Hyæna*.

Of the CROCUTA.

THe third kinde of *Hyæna* is called *Crocuta*, not the *Gulon* aforeſaid, but another different from that, which is ſaid to be an *Æthiopian* four-footed beaſt, becauſe it is ingendred betwixt a Lyoneſs and an *Hyæna*. His teeth are all of one bone, being very ſharp on both ſides of his mouth, and included in the fleſh like as in a caſe, that they may not be dulled: with their teeth they break any thing. It is ſaid alſo by *Solinus*, that it never winketh, and that their nature ſeemeth to be tempered betwixt a Dog and a Wolf, yet is it more fierce then either of both, more admirable in ſtrength, and eſpecially of the teeth and belly, having power to break and digeſt any bone: it imitateth alſo the voyce of a man to devour them, as is ſaid before in the *Hyæna*.

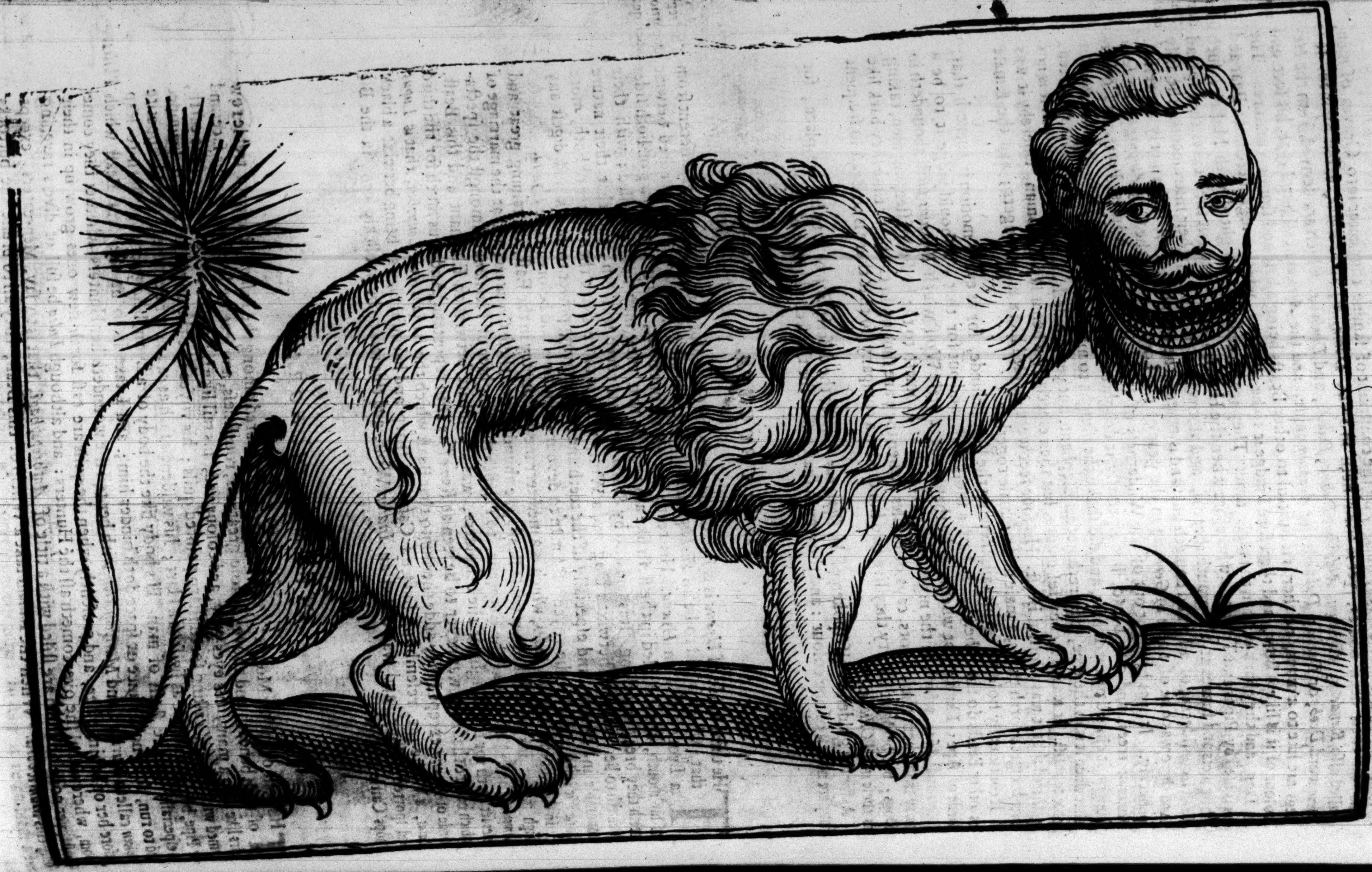
The region, proportion, and other qualities.

In the Region *Dacbinabades*, which is a mediterranean Country in the Eaſt, containing great and high mountains, amongſt other wilde Beaſts, are abundance of theſe *Crocutaes*; and at the marriage of *Antonius* the ſon of *Severus* the Emperor, to *Plautilla* the daughter of *Plautianus*, amongſt the ſpectacles ſet forth for the delight of the beholders, was a combate betwixt an Elephant and this Beaſt, which before that time was never to be ſeen at *Rome* (as *Dion* reporteth) And thus much for the third kinde of *Hyæna*, except I may adde thereunto that Beaſt which the *Italians* call *Loupcbat*, that is *Lupus Catus*, a Wolfe-cat, reſembling in face a Cat with ſharp and harmful claws, being betwixt a black and ſpotted colour, and was called an *Indian* Wolf, and this was to be publickly ſeen, in the Biſhops Caſtle at *Trent*.

Of the MANTICHORA.

THis beaſt or rather Monſter (as *Cteſias* writeth) is bred among the *Indians*, having a treble row of teeth beneath and above, whoſe greatneſs, roughneſs, and feet are like a Lyons, his face and ears like unto a mans, his eyes gray, and colour red, his tail like the tail of a Scorpion, of the earth, armed with a ſting, caſting forth ſharp pointed quils; his voyce like the voyce of a ſmall Trumpet or Pipe, being in courſe as ſwift as a Hart; his wildeneſs ſuch as can never be tamed, and his appetite is eſpecially to the fleſh of man. His body like the body of a Lyon, being very apt both to leap and to run, ſo as no diſtance or ſpace doth hinder him; and I take it to be the ſame Beaſt which *Avicen* calleth *Marion*: and *Maricomorion*, with her tail ſhe woundeth her Hunters, whether they come before her or behinde her, and preſently when the quils are caſt forth new ones grow up in their room, wherewithal ſhe overcometh all the Hunters: and although *India* be full of divers ravening Beaſts, yet none of them are ſtiled with a title of *Anthropophagi*, that is to ſay, Men-eaters; except only this *Manticbora*. When the *Indians* take a Whelp of this Beaſt, they all to bruiſe the buttocks and

Philes.



and tail thereof, that ſo it may never be fit to bring ſharp quils, afterwards it is tamed without peril. This alſo is the ſame Beaſt which is called *Leucrocuta* about the bigneſs of a wilde Aſs, being in legs and Hooſs like a Hart, having his mouth reaching on both ſides to his ears, and the head and face of a female like unto a Badgers. It is called alſo *Martiora*, which in the *Perſian* tongue ſignifieth a devourer of men; and thus we conclude the ſtory of the *Hyena* for her deſcription, and her ſeveral kindes: Now followeth the medicines ariſing out of her ſeveral parts.

The Medicines of the Hyæna.

The Oyl in which a Fox is baked either alive or dead, doth either altogether cure and make whole thoſe which are troubled with the Gout, if ſo be that the diſeaſe or ſickneſs be green or new, or at the leaſt not of too long continuance; it doth ſo cure them, that although it may happen to return again, yet it will be much more milde and gentle then before it had been. But the Oyl which proceedeth from Foxes doth nothing more drive away the forenamed diſeaſe, then that which likewiſe is got or prepared out of the *Hyena*; for that hath an excellent and eminent quality of diſſolving and diſperſing. The fleſh of the *Alzabo* is both hot and cold, and being baked with Oyl, doth very much help either men or women which have their feet Gowty, or have any pain in their joynts, which may happen or come by the occaſion of cold: for it is of a ſlender and diſſolute ſubſtance.

The medicinal properties.

Galen.

Raſis.

The vanity of the *Magi*, or Wiſe-men, which is witty in nothing but in circumſtance of words, doth ſay, the beſt time to take *Hyena's*, is, when the Moon paſſeth over the ſigne called *Gemini*, and that for the moſt part the hairs be kept and preſerved. The *Magi* do alſo affirm, that the skin of an *Hyena* being ſpread upon a ſore which was bitten by a mad Dog, doth preſently and without any pain cure the ſame. The ſame alſo being bound to that part of the head, which doth ake, will immediately drive away the pain and grief thereof.

Pliny.

Pliny.

The ſame doth very effectually and ſpeedily help them which are troubled with the Gout, or ſwelling in the joynts. The flowre of Barley being mingled with the bloud of an *Hyena*, and fryed or baked over the fire and ſo taken, doth very much aſſwage the wringings and wrinchings either in the guts or belly of a man or woman. If the bloud of an *Hyena* being hot be anointed on them which are infected with the Leproſie, it will without delay very effectually cure them.

Albertus.

Raſis.

The *Hyena's* fleſh being eaten, doth much avail againſt the bitings of ravenous Dogs; but ſome are of opinion, that the liver being only eaten is of more force and power to cure or heal them. The nerves or ſinews of an *Hyena*, being beaten to ſmall powder, and dryed and mingled with Frankincenſe, together, and ſo drunk, doth reſtore fertility and plenty of ſeed in that woman which before was barren.

Pliny.

There is alſo for the biting of a ravenous Dog another excellent remedy, which is this, firſt to anoint the place ſo bitten with the fat or greaſe of a Sea-calf, or elſe to give it in drink: and then to make the operation more effectual, mingle the marrow of an *Hyena*, and Oyl that cometh from the Maſtick tree and Wax together, and being ſo applyed and anointed upon the ſore, it will preſently cure the ſame. The ſame marrow of the *Hyena* is very good and effectual againſt the pain and grief in the ſinews, as alſo for the looſeneſs and weakneſs of the reins.

Pliny.

The marrow which proceedeth from the Chine-bone of an *Hyena*, being mixed with his Gall and old Oyl altogether, and ſo boiled until they come unto a ſoft temperance, and mollifying medicine, being anointed upon the ſinews, doth expel and force away all pain of grief thereof whatſoever. The ſame marrow being bound unto the back of either man or woman, who are troubled with vain phantaſies or dreams in their ſleep, doth very ſpeedily and very effectually help them. The fat or greaſe of an *Hyena* being burnt, doth drive away all venemous Serpents from the place where it is ſo uſed.

Democritus.

The ſame being mingled with leaven, and ſo being wrought into a plaiſter, is a very good cure or remedy for the falling of the hair, or the diſeaſe called the Foxes evill. The left part of the brain of an *Hyena* being either anointed upon the noſtrils of either men or beaſts, is of ſuch vertue, that it will cure diſeaſes upon them which are in a manner mortal. For the ſterility or barrenneſs of women, the eye of an *Hyena* being mixed with Licoras, and the herb called Dill, and ſo taken in drink, is of ſuch force and power, that in three days it will make them fit for conception.

Myrepſus.

The teeth of an *Hyena* either touched, or bound in order unto the teeth of any man or woman who are troubled with the tooth-ach, will preſently eaſe the pain and vexation thereof. One of the great teeth of an *Hyena*, being bound with a ſtring unto any that are troubled in the night times with ſhadows and phantaſies, and which are frayed out of their ſleep with fearful viſions, doth very ſpeedily and effectually procure them eaſe and reſt. The tooth of an *Hyena* (called *Alzabo*) being bound upon the right arm of any one which is either oblivious or forgetful, and hanging down from the arm unto the middle finger or wriſt, doth renew and refreſh their decayed memory.

Albertus.

The palat of an *Hyena* being dryed and beaten to powder, and then mingled with *Egyptian* Allum, and ſo made hot and mixed altogether, being three times turned in any ones mouth, which hath either ſore or ulcer in it, will in ſmall time procure them remedy and help of their vexation and trouble. The fleſh which groweth upon the hinder part of the neck, being burned, and then eaten or taken in drink, doth very ſpeedily help and cure the grief and aches of the loins.

The ſhoulders likewiſe being uſed in the aforeſaid manner, doth profit much for the healing of any who are vexed with any anguiſh or pain in their ſhoulders or ſides. The lungs being dryed and taken in drink, do eaſe any, either man or woman which is troubled either with Colick or Stone. But being dryed into powder, and mingled with Oyl, and ſo anointed upon the belly, it killeth the Worms, and expelleth all aches away from the belly. The Heart being uſed in the aforeſaid manner and taken in drink, doth eaſe and help all aches, pains or griefs in the body whatſoever. The white fleſh being taken from the breaſt of an Hyæna, and ſeven hairs, and the genital of a Hart, being bound all together in the skin or hide of a Buck or a Doe, and afterwards hanged about the neck of a woman which is in travel, will greatly hinder her for bringing forth her childe.

If there ſhall be any fleſh or bones of men found in the body of a dead Hyæna, being dryed and beaten to powder, and then mixed with a certain perfume, they will be very excellent to help the Gowt, or drive away the Convulſion of the ſinews. The kell or caull wherein the bowels are contained, being uſed in the aforeſaid manner, and alſo mixed with Oyl, will be a preſent remedy againſt the burnings and inflamations of ſores, botches, and Ulcers.

Pliny.

The chine bone of an Hyæna being bruiſed and beaten into ſmall powder, and ſo dryed, and then mingled with the tongue and the right foot of a Sea-calf, the gall of an Ox being added thereunto, and all of them boyled or baked together, and anointed upon the hide or skin of an Hyæna, and ſo lapped about the legs or joynts of them which are troubled with the Gowt, will in ſhort time eaſe the pain, and rid them altogether of the grief thereof.

The chine bone being alſo beaten to powder, and given in Wine to drink, is very profitable and neceſſary for thoſe which are in ſore travel or pain of childe-birth. The firſt or eighth rib of the ſame Beaſt, being beaten and mingled with a certain perfume, is very good and medicinable for ſores and botches which do break through the fleſh.

Dioſcorides.
Marcellus.

Their fleſh alſo being eaten, doth quickly cure and heal the bitings or tearings of a ravenous Dog; but their liver being ſo uſed, is more effectual and ſpeedy for the curing thereof. The liver of the aforeſaid Beaſt is alſo very curable for Agues or quartern Feavers being beaten to powder, and drunk in Wine, before the augmentation or ſecond aſſaults thereof. The ſame alſo is an excellent and ſpeedy remedy for the wringings and aches of the belly, as alſo for that grievous and painful diſeaſe called the Colick and Stone. For the ſame diſeaſes, the gall of a Sea-ſcorpion, and of a fiſh called *Helops*, and of a Sea-crab, and of an Hyæna, being beaten to powder, and mixed together, and ſo drunk in Wine, is a very good and effectual cure and help. The gall of an Hyæna, by it ſelf alone being rub'd or anointed upon the head of either man or woman whoſe hairs are fallen off, doth preſently procure the hair to renew and grow again; it will alſo bring hair upon the eye-lids, being rubbed thereupon.

Galen.
Marcellus.

The gall of an Hyæna being mingled with Hony, and anointed upon the eyes; doth ſharpen and clear the eye-ſight, and expel and drive away all blemiſhes and ſmall skins which cover the ſight of the eye; as alſo the pain in the eyes called the Pin and the Web. But *Apollonius Pitaneus* doth ſay, that the gall of a Dog being uſed in the aforeſaid manner, is better to cure the ſight of the eyes then the gall of an Hyæna. But *Pliny* whom I think beſt to follow, and worthyeſt to be believed, doth beſt allow of the Hyæna's gall for the aforeſaid purpoſe; and alſo for the expelling of certain white ſpots in the eye, which do hinder the ſight thereof.

Pliny.

The gall of a Bear and of a Hyæna, being dryed and beaten to powder, and ſo mixed with the beſt Hony which is poſſible to be had, and then ſtirred up and down a long time together, doth help them unto their eye-ſight which are ſtark blinde, if that it be daily anointed and ſpread upon the eyes for a reaſonable ſpace together: The gall of a Hyæna being baked in a cruſe of *Athenian* Hony, and mingled with the crooked herb *Crocis*, and ſo anointed upon the brows or fore-head of them which are purblinde, doth ſpeedily help them; it doth alſo eaſe them which are troubled with the water or rheume which falleth in the eyes. *Democritus* doth alſo affirm, that if the brow of either man or woman be anointed with the gall of an Hyæna only, it will drive away all darkenings, and blemiſhes in the eyes, and expel the water or rheume thereof, and alſo aſſwage the pain or grief which may come or happen in them whatſoever it be.

Marcellus.
Pliny.

The marrow which proceedeth from the chine-bone of an Hyæna, being mixed with his own gall, and with old Oyl, and then baked or boiled in a cruſe until it come unto a temperate and mollifying medicine, and then being laid or anointed upon the ſinews or nerves, who is in thoſe parts troubled, will throughly heal and cure any default or pain which may happen thereunto. The gall of a male Hyæna being pounded or beaten, and bound about the left thigh of any woman that is barren, doth help for conception. The gall of the ſame Beaſt being drunk in Wine, to the value of a dram, with the decoction or liquor which cometh from Spike-lavender, called Oyl of Spike, is a very good remedy and help againſt the Tympany or ſwelling of the belly. The gall alſo being beaten and mixed with the ſtone called Eat-fleſh, is very good and profitable for them which are troubled with the Gowt. The milt of an Hyæna is very effectual to cure and heal any pain or grief in the milt of either man or woman. The lungs being dryed and beaten to powder, and mingled with oyl, and anointed upon the loins of any one who is grieved or troubled in thoſe places, will ſpeedily cure the aches or griefs thereof.

Marcellus.

The bladder of an Hyæna being drunk in Wine, is a very good and effectual remedy againſt the incontinency of man or womans urine, or the running of the reins. But if there be any urine in the bladder of the Hyæna found when he is taken, let it be poured forth into ſome clean veſſel, and mixed with Oyl which proceedeth from the pulſe or corn of *India*, and ſo drunk up, and it will much eaſe and help them who are troubled in minde, and are full of care and grief. The ſecret parts of a female Hyæna beaten and mixed with the rinde or skin of a Pomgranate, and taken in drink, is very profitable to cure the inconveniences or pain of a womans ſecret parts.

The genital of a male Hyæna dryed and beaten to powder, being mingled with a certain perfume, doth cure and help thoſe which are troubled with the Cramp, and Convulſion of the ſinews. The feet of an Hyæna being taken, doth heal and cure thoſe which are ſand-blinde, and ſuch as have botches and ſores breaking through the skin and fleſh; and alſo ſuch as are troubled with inflamations or breedings of winde in their bodies, only by touching and rubbing them over.

Dioſcorides.

The duſt or dung which is found in the interior parts of an Hyæna, being burned, and dryed into powder, and ſo taken in drink, is very medicinable and curable, for thoſe which are grieved with painful excoriations and wringings of the belly, and alſo for thoſe which are troubled with the Bloudy-flix. And the ſame being mingled with Gooſe-greaſe, and anointed over all the body of either man or woman, will eaſe them of any pain or grief which they have upon their body whatſoever. The dung or filth of an Hyæna alſo, being mingled with certain other medicines, is very excellent to cure and heal the bites and ſtingings of Crocodiles, and other venemous Serpents. The dung it ſelf is alſo very good to purge and heal rotten wounds and ſores which are full of matter, and filthy corruption.

Of the *IBEX*.

Of the name.

THis Beaſt Deut. the 14. is called *Ako*, and is there rehearſed among the clean Beaſts, which although the Septuagints tranſlate *Tragelaphus*, yet we have ſhewed already in that ſtory, that it cannot ſtand with the meaning of the holy Ghoſt, becauſe that Beaſt is found no where but near the River *Phaſis*, or in *Arabia*, (as *Pliny* and *Diodorus* write:) and beſides the *Chaldee* tranſlation hath *Jaela*; the *Perſians*, *Cotzistu*; the *Arabians*, *Obal*; all which by *Abraham Ezra*, and *Rabbi Solomon*, and many other of the learned *Jews*, are interpreted to be the *Ibex*, which of the *Germans* is called *Steinbock*; and the female of the *Helvetians* is called *Ybſchen*, and *Ybſchgeiſt*; which words ſeemeth to be derived from the *Latine* word *Ibex*, and the *Ciſalpine French*, which ſpeak *Italian*, dwelling about *Millain*, retain the *German* word for the male, but the female by a proper word they call *Veſino*, and ſo alſo do the *Rhætians*. The *Tranſalpine French*, *Bouc eſtaine*; the *Illyrians*, *Kozorozieex*, and ſome *Latine* Authors call him *Capricornus*. The *Græcians*, *Ixalos*, and *Ægoceros*: Although I have never read *Capricornus* to ſignifie a Beaſt, but only a ſtar, excepting ſome Poetical *Grammarians*, who affirm this Beaſt to be a monſter of the Sea; and that *Pan* when he fled out of *Egypt*, with other Gods from *Typhon* the Giant, their great Enemy, caſt himſelf into the water, and was transformed into this Beaſt. But *Jupiter* admiring his wit, placed him among the Stars near to *Leo*, according to this verſe:

A fiction of *Capricornus*.

Humidus Ægoceros, nec plus Leo tollitur urna.

Although there be ſome that affirm, this Capricorn to be placed among the Stars by *Jupiter*, becauſe he was nurſed with him. And that *Pan* hath his hinder parts like a fiſh, and his fore-part like a Goat, according to theſe verſes:

Tum gelidum valido de pectore frigus anhelans,
Corpore ſemifero, magno capricornus in orbe.

Wherefore by the ſignes *Cancer* and *Capricornus*, the Ancients were wont to underſtand the deſcending and aſcending of the ſoul: that is to ſay, by the Cancer or Crab which goeth backward, the ſouls deſcent, by Capricorn, (becauſe the Goat climbeth) the ſouls aſcent: and therefore they place it in the Zodiack, where the Sun after the ſhort days beginneth to aſcend, for no other cauſe then for that which I have rehearſed. The Epithets that are given unto this Capricorn, do alſo belong unto the Ibex, ſuch as are theſe, moiſt, cold, ſwift, horn-bearer, watery, ſnowy, wool-bearer, rough, briſtly, eared, horrible, fierce, tropick, frowning, ſhowring, threatning, black, and ſuch like.

Porphyrius.

The attributes of this beaſt. *Textor.*

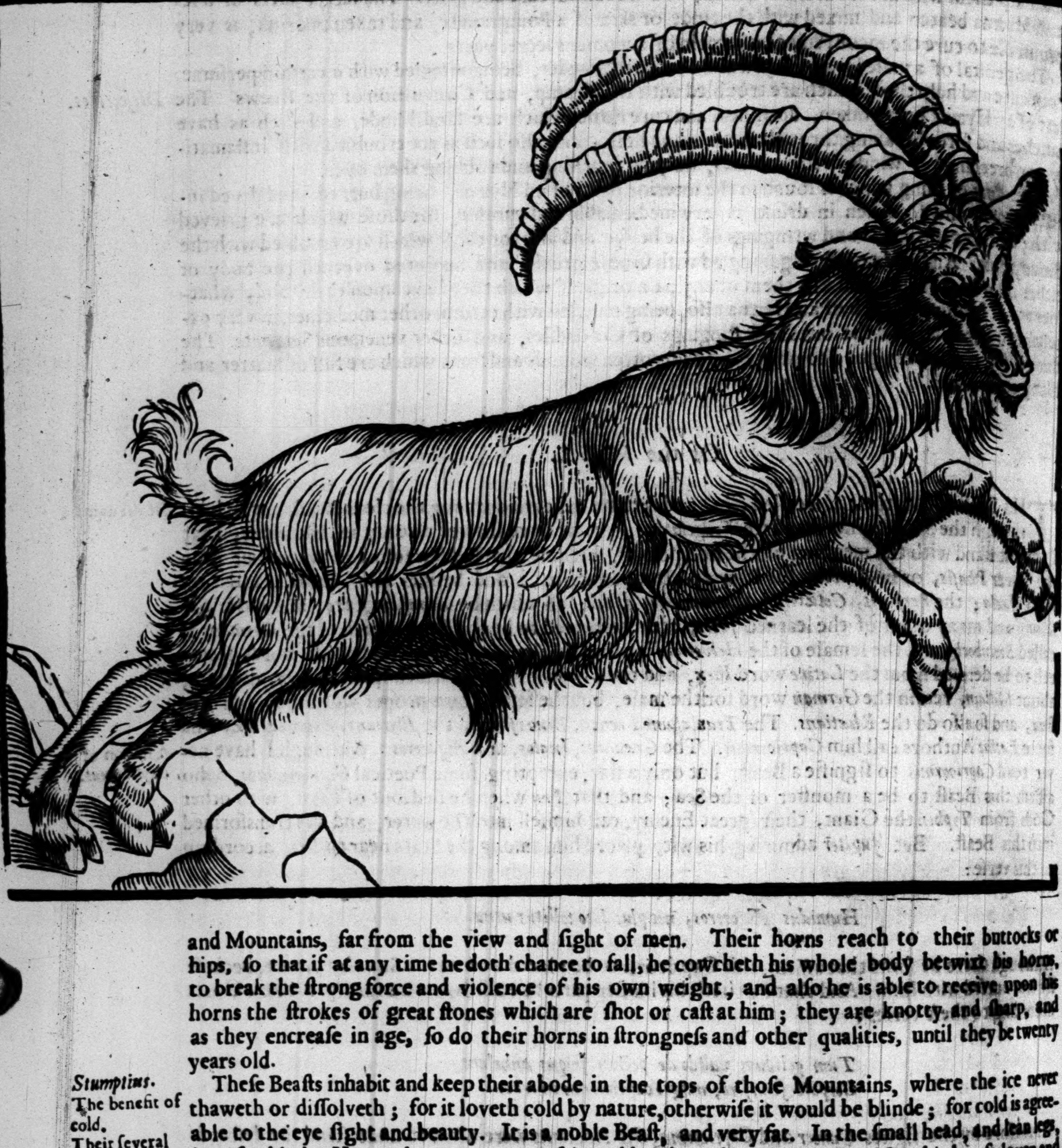
To return therefore unto the Ibex, although I do not diſlike the opinion of them, which take it to be a wilde Goat, yet I have reſerved it into this place, becauſe of many eminent differences, as may appear by the ſtory. Firſt theſe are bred in the Alpes, and are of an admirable celerity, although their heads be loaded with ſuch horns, as no other Beaſts of their ſtature beareth. For I do read in *Euſtathius*, that their horns are ſixteen palms long, or five ſpans and one palm, and ſometimes ſeaven ſpans; ſuch was the horn conſecrated at *Delos*, being two cubits and a ſpan long, and ſix and twenty pounds in weight. This Beaſt (ſaith *Polybius*) in his neck and hair is like a Buck-goat, bearing a beard under his chin of a ſpan long, as thick as a Colts tail, and in other parts of his body reſembleth a Hart.

Their Countries of breed, and parts of their body.

It ſeemeth that his *Hebrew* name *Jual*, is derived of climbing, and *Iſidorus* ſaith that *Ibices* are *quaſi Avices*, that is like Birds, becauſe like Fowls of the air, they inhabit the tops of clifts, Rocks,

The places of their abode.

and



and Mountains, far from the view and ſight of men. Their horns reach to their buttocks or hips, ſo that if at any time he doth chance to fall, he cowcheth his whole body betwixt his horns, to break the ſtrong force and violence of his own weight, and alſo he is able to receive upon his horns the ſtrokes of great ſtones which are ſhot or caſt at him; they are knotty and ſharp, and as they encreaſe in age, ſo do their horns in ſtrongneſs and other qualities, until they be twenty years old.

Stumplius.
The benefit of cold.
Their ſeveral members.

Theſe Beaſts inhabit and keep their abode in the tops of thoſe Mountains, where the ice never thaweth or diſſolveth; for it loveth cold by nature, otherwiſe it would be blinde; for cold is agreeable to the eye ſight and beauty. It is a noble Beaſt, and very fat. In the ſmall head, and lean legs, it reſembleth a Hart; the eyes are very fair and bright; the colour yellowiſh; his hoof cloven and ſharp like wilde Goats. It far excelleth a wilde Goat in leaping; for no man will believe how far off, or what long ſpace it will leap, except he ſaw it. For there is no place ſo ſteep or cragged, that if it afford him but ſo much ſpace as his foot may ſtand on, but he will paſs over it with a very few jumps or leaps. The Hunters drive them to the ſmooth and high Rocks, and there they by encloſing them, take them in ropes or toils, if they cannot come near them with ſhot or ſwords. When the Beaſt ſeeth his hunter which deſcendeth to him by ſome Rock, he obſerveth very diligently, and watcheth if he can ſee any diſtance or ſpace betwixt him and the Rock; yea, but ſo much as his eyeſight can pierce through: and if he can, then he leapeth up and getteth betwixt the Hunter and the Rock, and ſo caſteth him down head-long; and if he can eſpy no diſtance at all, then doth he keep his ſtanding until he be killed in that place.

Their taking.

The hunting of this Beaſt were very pleaſant, but that it is encumbred with much labour and many perils, and therefore in theſe days they kill them with guns. The Inhabitants of *Valais* (neer the River *Sedunus*) take them in their infancy when they are young, and tame them, and until they be old, they are contented to go and come with the tame Goats to paſture, but in their older and riper age they return to their former wilde nature.

Their copulation.

Ariſtotle affirmeth, that they couple or engender together (not by leaping upon each other) but ſtanding upright, upon their hinder legs: whereunto I cannot conſent, becauſe the joynts and nerves of their hinder-legs will not be ſtretched to ſuch a copulation; and it may be that he or his relator had ſeen them playing together as Goats do, ſtanding upright, and ſo took that geſture in their paſtime for carnal copulation. The female hath leſs horns then the male, but a greater body; and her horns are very like to a wilde Goats.

When this Beaſt feeleth infallible tokens of her death, and perceiveth that her end by ſome wound or courſe of nature approacheth, and is at hand; it is reported by the Hunters, that ſhe aſcendeth to the top of ſome Mountain or high Rock, and there faſteneth one of her horns in the ſame ſteep place, going round continually and never ſtanding ſtill, until ſhe have worn that horn aſunder, whereby ſhe ſtayeth her ſelf, and ſo at length at the inſtant or point of death, breaking her horn, falleth down and periſheth. And becauſe they die among the Rocks, it falleth out ſeldom that their bodies are found, but many times when the Snow falleth from the Mountains in great and huge maſſes, it meeteth with a living Ibex, and other wilde Beaſts, and ſo oppreſſing them driveth them down to the foot of the Hils or Mountains, as it doth trees and ſmall houſes, which are built upon the ſides of them.

Their behaviour at their death.

Pelagonius.

In *Creet* they make bows of the horns of theſe Beaſts. And concerning their taking it is not to be forgotten how the Hunter which perſueth her from one rock to another, is forced many times for the ſafegard of his own life, to forſake his ſtanding, and to obſerve the Beaſt when it maketh force at him, and to rid himſelf from danger of death by leaping upon his back, and taking faſt hold on his horns, whereby he eſcapeth. In the houſe of *Pompey*, where the memorable Forreſt of *Gordianus* was painted, there were among other Beaſts, two hundred *Ibices*, which *Pompey* gave unto the people at the day of his triumph, for to make ſpoil thereof at their own pleaſure.

The uſe of their horns;

The Medicines of the Ibex.

Some do commend the bloud of the Ibex to be a very good remedy againſt the ſtone of the bladder, being uſed in this manner: Firſt, they divide it in parts, and put one part of the bloud, and about ſome ſix parts of Wine *Apiat*, and Hony mixed together, and do boil them both together luke-warm, and afterwards they reſerve it in a clean veſſel, and the third day in the morning they give it unto the party to drink who is grieved, and then they put him into a Bath about noon time, and in the evening, and this order is to be obſerved for three days together, for it will come to paſs, that in that ſpace the Stone will be diſſolved and turned into ſand or gravel, and ſo by that means will have vent together with the urine.

There is alſo by the dung of the aforeſaid Beaſt, an excellent remedy againſt the *Sciatica* or Hip-gout, by which that moſt excellent Phyſitian *Auſonius* himſelf was healed, and many other lying deſperate of remedy, which is this; to gather the dung of this Beaſt in the ſeventeenth day of the Moon, neither is it any great matter whether you gather it in ſome part of the old Moon, for it will have the ſame operation: you ſhall therefore take as much of this dung as you can hold in your hand or fiſt at one time: ſo that the quantity of the dung be unlike, and you ſhall put it in a morter and beat it to powder, and caſt twenty grains of Pepper into the ſame ſime, being very diligently pounded or bruiſed, and then you ſhall adde nine ounces of the beſt Hony unro the aforeſaid mixture, and four pounds of the beſt Wine, and mix the potion in the manner of a compound Wine, and the dung or dirt being dryed and beaten firſt; you ſhall mingle all the reſt, and put them together in a veſſel made of glaſs, that when you have any need, you may have the medicine ready prepared, to comfort him or her which is ſo afflicted.

Of the *ICHNEUMON*.

M*Arcellus* and *Solinus*, do make queſtion of this Beaſt (Ichneumon) to be a kinde of Otter, or the Otter a kinde of this Ichneumon, which I find to be otherwiſe called *Enydros*, or *Enhydris*, becauſe it liveth in water; and the reaſon of this name I take to be fetched *ab inveſtigando*, becauſe like a Dog or hunting Hound; it diligently ſearcheth out the ſeats of wilde Beaſts, eſpecially the Crocodile and the Aſp, whoſe Egs it deſtroyeth. And for the enmity unto Serpents, it is called *Ophiomachus*. *Iſidorus* is of opinion, that the name of this Beaſt in the *Greek* is given unto it, becauſe by the ſavour thereof, the venom and wholeſomeſs of meates is deſcried: Whereof *Dracontius* writeth in this manner:

The kindes and names with the reaſon thereof.

Prædicit Suillus vim cujuſcunq; veneni.

The Ichneumon foretelleth the power, and preſence of all poyſon. And it is called *Suillus* in *Latine*, becauſe like a Hog, it hath briſtles in ſtead of hair; *Albertus* alſo doth call it Neomon, miſtaking it for Ichneumon.

There be ſome that call it an *Indian* Mouſe, becauſe there is ſome proportion or ſimilitude in the outward form between this Beaſt and a Mouſe. But it is certain, that it is bred in no other Nation but only in *Egypt*, about the River *Nilus*; and of ſome it is called *Mus Pharaonis*, *Pharaohs* Mouſe, For *Pharoah* was a common name to all the *Egyptian* Kings.

Hermolaus.
Gillius.

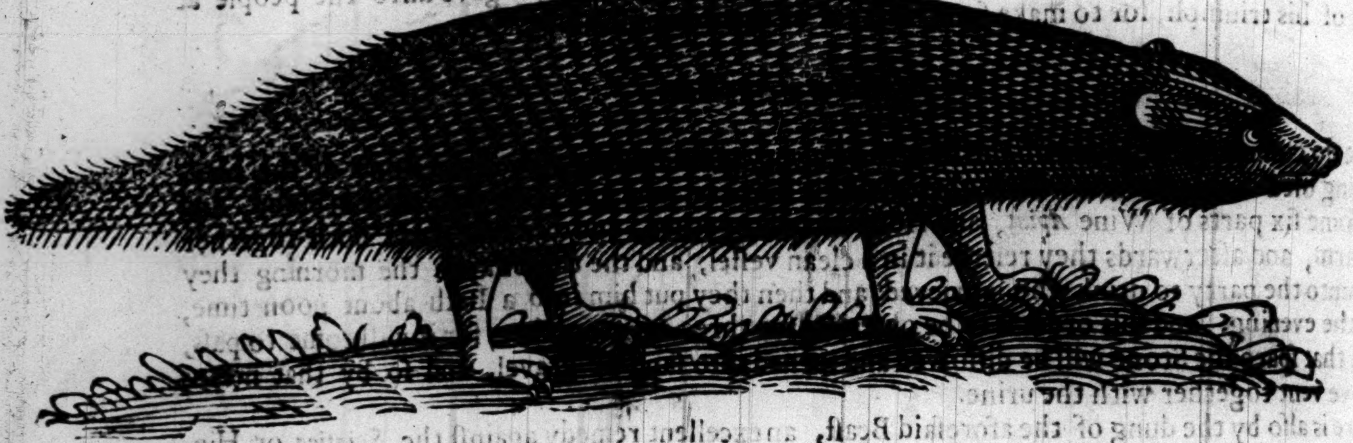
Albertus.
Vincentius.

There be ſome that call it *Thyamon*, and *Anſebytomon*, and alſo *Damula*, miſtaking it for that Weaſil which is an enemy to Serpents, called by the *Italians*, *Donola*; yet I know no learned man but taketh theſe two names, to ſignifie two different Beaſts. The quantity of it or ſtature is ſometimes as great as a ſmall Cat or Ferret, and the hairs of it like the hairs of a Hog; the eyes ſmall and narrow, which ſignifie a malignant and crafty diſpoſition; the tail of it very long like a Serpents, the end turning up a little, having no hairs but ſcales, not much unlike the tail of a Mouſe. *Ælianus* affirmeth, that both ſexes bear young, having ſeed in themſelves, whereby they conceive. For thoſe that are overcome in combates one with another, are branded with a warlike mark of Villanage, or ſubjection to their Conquerours; and on the contrary ſide they which are conquered and overcome in fight, do not only make vaſſals of them whom they overcome, but in token thereof for further puniſhment, fill them with their ſeed by carnal copulation, ſo putting off from themſelves to them, the dolours and torments of bearing young.

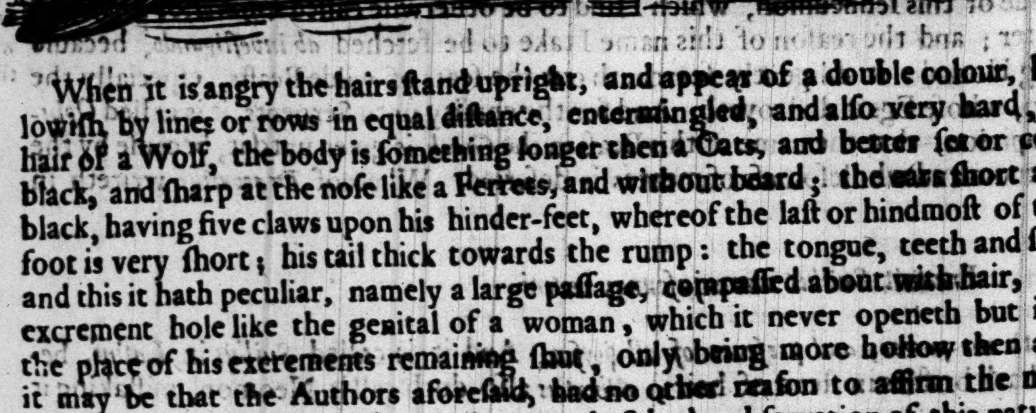
The quantity and ſeveral parts.

Their procreation and fights one with another.

This firſt picture of the Ichneumon *was taken by* Bellonius *except the back be too much elevated.*



The ſecond picture taken out of Oppianus *Poems, as it was found in an old Manuſcript.*



When it is angry the hairs ſtand upright, and appear of a double colour, being white and yellowiſh by lines or rows in equal diſtance, entermingled, and alſo very hard, and ſharp, like the hair of a Wolf, the body is ſomething longer then a Cats, and better ſet or compacted; the beak black, and ſharp at the noſe like a Ferrets, and without beard; the ears ſhort and round; the legs black, having five claws upon his hinder-feet, whereof the laſt or hindmoſt of the inner ſide of the foot is very ſhort; his tail thick towards the rump: the tongue, teeth and ſtones are like a Cats, and this it hath peculiar, namely a large paſſage, compaſſed about with hair, on the outſide of his excrement hole like the genital of a woman, which it never openeth but in extremity of heat; the place of his excrements remaining ſhut, only being more hollow then at other times. And it may be that the Authors aforeſaid, had no other reaſon to affirm the mutation of feeble or common tranſmigration of genital power, beſide the obſervation of this natural paſſage in male and female. They bring forth as many as Cats and Dogs, and alſo eat them when they are young: they live both in land and water, and take the benefit of both elements; but eſpecially in the River *Nilus*, amongſt the Reeds, growing on the banks thereof, according to the ſaying of *Nemetian*;

The places of their abode.

E

——Et placidis Ichneumona quærere ripis,
Inter arundineas ſegetes.——

For it will dive in the water like an Otter, and ſeem to be utterly drowned, holding in the breath longer then any other four-footed Beaſt, as appeareth by his long keeping under water, and alſo by living in the belly of the Crocodile, until he deliver forth himſelf, by eating through his bowels, as ſhall be ſhewed afterwards. It is a valiant and nimble creature, not fearing a great Dog, but ſetteth upon him and biting him mortally, but eſpecially a Cat; for it killeth or ſtrangleth her with three bites of her teeth, and becauſe her beak or ſnout is very narrow or ſmall, it cannot bite any thing, except it be leſs then a mans fiſt. The proportion of the body is much like a Badgers, and the noſe hangeth over the mouth, like as it were always angry; the nature of it is, finding the Crocodile aſleep, ſuddenly to run down into his throat and belly, and there to eat up that meat which the Crocodile hath devoured, and not returning out again the way it went in, maketh a paſſage for it ſelf through the Beaſts belly.

The courage and ſtrength of this beaſt.

His entrance into a Crocodile.

And becauſe it is a great enemy and devourer of Serpents, the common people of that Countrey do tame them, and keep them familiarly in their houſes like Cats, for they eat Mice, and likewiſe bewray all venemous Beaſts: for which cauſe as is ſaid before, they call it *Pharaohs* Mouſe, by way of excellency. At *Alexandria* they ſell their young ones in the Market, and nouriſh them for profit: It is a little Beaſt, and marvellouſly ſtudious of purity and cleanlineſs.

The taming of Ichneumons.

Bellonius affirmeth that he ſaw one of them at *Alexandria*, amongſt the ruines of an old Caſtle, which ſuddenly took a Hen and eat it up, for it loveth all manner of fowls, eſpecially Hens and Chickens, being very wary and crafty about his prey, oftentimes ſtanding upright upon his hinder-legs, looking about for a fit booty, and when it eſpyeth his prey near him, it ſlideth ſo cloſe to the ground, as is very admirable, until it be within the reach, and then leapeth upon it with incredible celerity, flying to the throat, and like a Lion killeth all by ſtrangling. It eateth indifferently every living thing, as Snails, Lizards, Camelions, all kindes of Serpents, Frogs, Mice, and Aſps. For *Strabo* ſaith, when he findeth an Aſp by the water ſide, it catcheth hold on the tail, and ſo draweth the Beaſt into the water, and receiveth help from the flouds to devour her enemy; and whereas we have ſaid already, that the Ichneumon entreth into the belly of the Crocodile, *Ammianus Marcellinus*, *Strabo*, *Pliny*, and *Oppianus*, maketh thereof this diſcourſe following. When the Crocodile hath filled his belly, and over-glutted himſelf with meat, he cometh to the land to ſleep.

Their food.

Their ſubtilty in obtaining their prey.

Now there is in *Egypt*, a certain Bird called *Crochillus*, whoſe nature is to wait upon the Crocodile, and with her breath and claws, gently and with a kinde of delight, to pull out the remnants of the meat ſticking in the Crocodiles teeth; wherewithal the Crocodile being pleaſed, openeth his mouth wide, to be thus cleanſed by this Bird, and ſo falling faſt aſleep gaping, watched all the while by the vigilant eye of the Ichneumon, perceiving him to be deeply plunged in a ſenſeleſs ſecurity, goeth preſently and walloweth in ſand and dirt, and with a ſingular confidence entereth into the gate of death, that is, the Crocodiles mouth, and ſuddenly pierceth like an Arrow through the Monſters wide throat down into his belly.

The Crocodile feeling his unlooked for evil, awaketh out of ſleep, and in a rage or madneſs, void of counſel, runneth to and fro, far and wide, plunging himſelf into the bottom of the river, where finding no eaſe, returneth to land again, and there breatheth out his untolerable poyſon, beating himſelf with all his power, ſtriving to be delivered from this unſufferable evil. But the Ichneumon careth not for all this, ſitting cloſe upon the liver of the Crocodile, and feeding full ſweetly upon his intrails, until at laſt being ſatisfied, eateth out her own paſſage through the belly of her hoaſt. The ſelf ſame thing is related by *Plutarch*: but I wonder for what cauſe the Beaſt ſhould rowl her ſelf in ſand and dirt, to enter into the Crocodiles belly; For firſt of all, if after her rolling in dirt, ſhe dry her ſelf in the Sun, yet will not that hard cruſt be any ſufficient armour of proof to defend her ſmall body from the violence of the Crocodiles teeth, and beſides, it encreaſeth the quantity of her body, making her more unfit to ſlide down through the Crocodiles narrow throat: and therefore, the Authors cannot be but deceived in aſcribing this quality to her, when ſhe is to enter into the Crocodile, but rather I believe, ſhe uſeth this defence againſt the Aſp, as *Ariſtotle* ſaith, and therefore the Author ſeeing her ſo covered with mud, might eaſily be miſtaken in her purpoſe. For it is true indeed that when ſhe ſeeth the Aſp upon the land, ſhe calleth her fellows, who arm themſelves as before ſaid before the combate, by which means they are ſafely preſerved from the bitings of their enemies; or if it be true that they wallow themſelves in the mud, they do not dry themſelves in the Sun, but while their bodies are moiſt, ſlide down more eaſily into the Crocodiles belly.

The Crocodiles behavior feeling the Ichneumon in her belly.

Their combates with Aſps.

Concerning their fighting with Aſps, and the arming of themſelves as aforeſaid, the *Ægyptians* make this Hieroglyphick of the Ichneumon, to ſignifie a weak man, that wanteth and craveth help of others; *Pliny* alſo ſaith that when the Aſp fighteth with this Beaſt, the Ichneumon turneth to her, her tail, which the Aſp taking for defiance, preſently maketh force at it, whereby ſhe is overtaken and deſtroyed by the Ichneumon, but in my opinion this combate is better expreſſed by *Oppianus*.

For ſaith he, the *Ichneumon* covereth her body in the ſand, as it were in a grave, leaving nothing uncovered but her long Serpentine tail, and her eyes, and ſo expecteth her enemy. When the Aſpe eſpyeth her threatning rage, preſently turning about her tail, provoketh the Ichneumon to combate, and with an open mouth and lofty head doth enter the liſt, to her own perdition. For the Ichneumon being nothing afraid of this great bravado, receiveth the encounter, and taking the head of the Aſp in his mouth, biteth that off, to prevent the caſting out of her poyſon: afterwards tearing her whole body in pieces, although gathered together wound in a circle; for the ſucceſs of theſe two combatants, lyeth in the firſt blow. If the Aſp firſt bite the Ichneumon, then doth her poyſon deſtroy her adverſary; and ſo on the contrary, if the Ichneumon firſt bite the Aſp, then is the Ichneumon conquerour; and for this cauſe ſhe covereth her body as aforeſaid.

Their enmity to all kindes of Serpents, and their egs.

Furthermore, this Beaſt is not only enemy to the Crocodile and Aſp, but alſo to their Egs, which ſhe hunteth out by the ſagacity of her noſe, and ſo deſtroyeth them, yet doth ſhe not eat them: whereby the merciful providence of God doth notably appear, for the ſafeguard of mankinde, which in thoſe Countries where theſe noiſome Beaſts are bred, hath provided ſuch an enemy to deſtroy them, both Egs, and Birds, as is friendly and tameable by the hand and wit of man.

For which cauſe the blinde Pagans, conſecrated this Beaſt to *Latona*, and *Lucina*, and the *Heracleopolites* did think that they poſſeſſed all religion; the *Egyptians* themſelves did worſhip them, becauſe as their Countrey is above all other plagued with Serpents, ſo they are much eaſed by the help of this little Beaſt. And when they die, they do not only lament them, but alſo bury them religiouſly. And thus much for the deſcription of the Ichneumon. Now followeth their medicinal vertues.

The Medicines of the Ichneumon.

Pliny.

The skin of the Ichneumon, being dryed and beaten into ſmall powder, afterwards mingled with Wine Vinegar, and anointed upon thoſe which are grieved with the venemous or poyſonſome bites of the ſame Beaſt; doth very effectually and ſpeedily cure them of the ſame. The pretious ſtone called by the name of *Iris*, which is very hard, as *Horus* ſaith, being burned, and afterward beaten or pounded into powder, is an excellent remedy againſt the venemous biting of the Ichneumon. It is alſo ſaid, that all Beaſts (but eſpecially the Crocodile) do for the moſt part hate and deteſt the ſociety of this Beaſt. There is moreover a very ranck and venemous poyſon, which proceedeth from the genital or groin of this Beaſt.

Avicenna.

Marcellus.

Herodotus.

The hairs of the Ichneumon being taken in a certain perfume, doe very much help and cure thoſe which are troubled or grieved with the Maw-worms. The dung of a Cat, or the dung of this Beaſt, is very medicinable to be put in any ſalve, or potion, for the ſtrengthening and confirming of the body. The urine or tail of an Ichneumon, being mixed with the milk of a black Cow, and given unto thoſe which are troubled with that grievous diſeaſe, called the Colick and Stone, for the ſpace of three days together in any kinde of drink, will eaſily and ſpeedily cure them of their pain. The ſtones of an Ichneumon, being either beaten in powder, or taken raw, either in Wine or any other drink, is very medicinable, and cureable for the eaſing of all ſuch as are troubled or grieved with any ach, pain, or diſeaſe in their belly: And thus much ſhall ſuffice concerning the cures, and medicines of the Ichneumon.

Of the *LAMIA*.

The ſignification of the word Lamia.

THis word *Lamia* hath many ſignifications, being taken ſometime for a Beaſt of *Lybia*, ſometimes for a fiſh, and ſometimes for a Spectre or apparition of women called *Phairies*. And from hence ſome have ignorantly affirmed, that either there were no ſuch Beaſts at all, or elſe that it was a compounded monſter of a Beaſt and a Fiſh, whoſe opinions I will briefly ſet down. *Ariſtophanes* affirmeth, that he heard one ſay, that he ſaw a great wilde Beaſt having ſeveral parts reſembling outwardly an Ox, and inwardly a Mule, and a beautiful Woman, which he called afterwards *Empuſa*.

Viſions of Phairies.

When *Apollonius* and his companions travelled in a bright Moon-ſhine-night, they ſaw a certain apparition of *Phairies*, in *Latine* called *Lamiæ*, and in *Greek*, *Empuſæ*, changing themſelves from one ſhape into another, being alſo ſometimes viſible, and preſently vaniſhing out of ſight again: as ſoon as he perceived it, he knew what it was, and did rate it with very contumelious and deſpiteful words, exhorting his fellows to do the like, for that is the beſt remedie againſt the invaſion of Phairies.)And when his companions did likewiſe rail at them, preſently the viſion departed away.

Philoſtratus.

The Poetical Lamia.

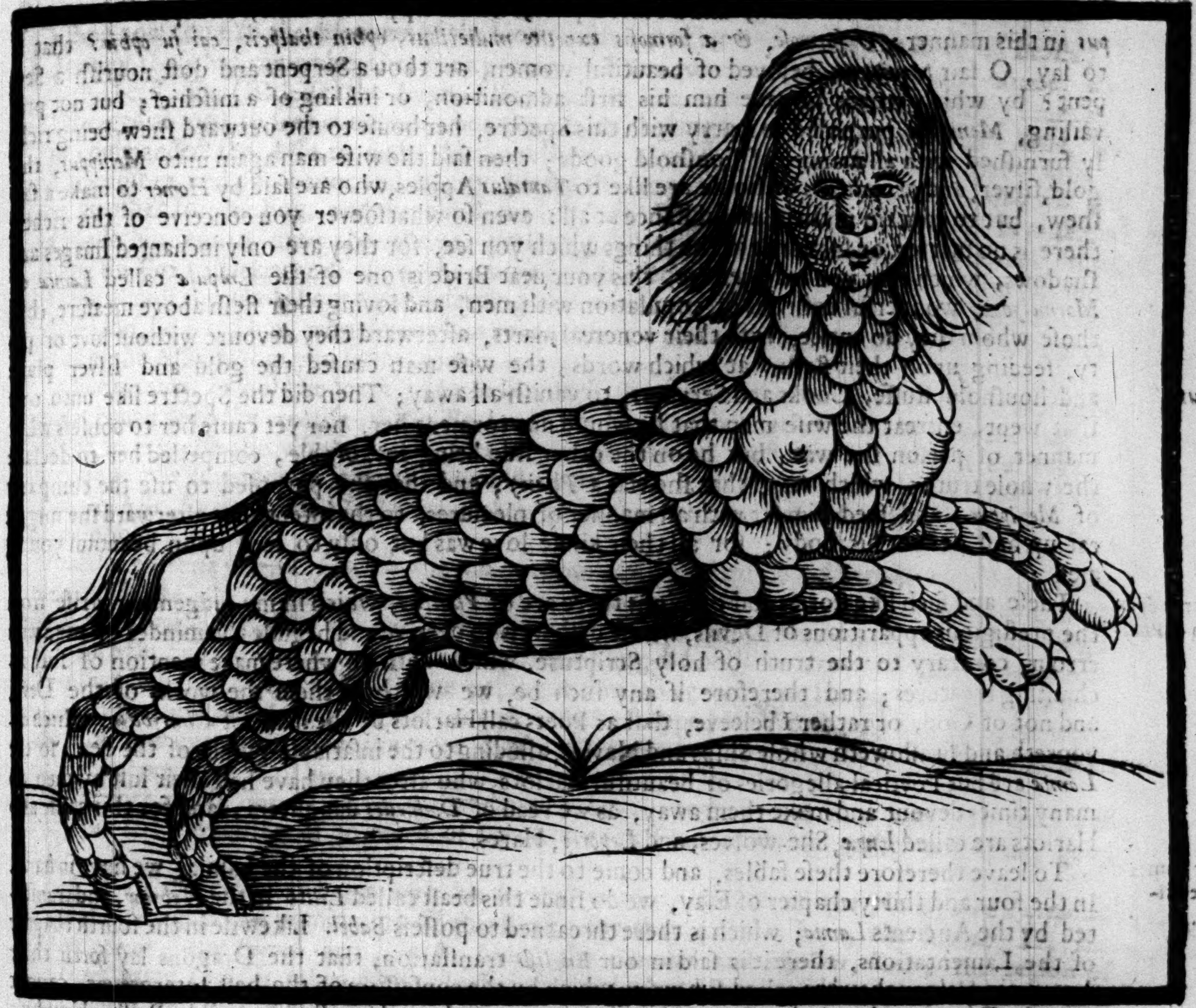
Varinus.

The Poets ſay, that *Lamia* was a beautiful woman, the daughter of *Bellus* and *Lybia*, which *Jupiter* loved, bringing out of *Lybia* into *Italy*, where he begot upon her many ſons, but *Juno* jealous of her husband, deſtroyed them as ſoon as they were born, puniſhing *Lamia* alſo with a reſtleſs eſtate, that ſhe ſhould never be able to ſleep, but live night and day in continual mourning, for which occaſion ſhe alſo ſtealeth away and killeth the children of others, whereupon came the fable of changing of children: *Jupiter* having pity upon her, gave her exemptile eyes that might be taken in and out at her own pleaſure, and likewiſe power to be transformed into what ſhape ſhe would: And from hence alſo came the faigned name of *Acho*, and *Alphito*, wherewithal women were wont to make their children afraid, according to theſe verſes of *Lucilius.*

Terricolas Lamias, Fauni quas Pompiliiq;
Inſtituere Numæ, tremit has, &c.

Old Wives tails of Phairies.

Of theſe *Angelus Politianus* relateth this old wives ſtory, in his preface upon *Ariſtotles* firſt book of *Analyticks*, that his Grand-mother told him when he was a childe, there were certain *Lamiæ* in the Wilderneſs, which like Bug-bears would eat up crying boys, and that there was a little Well near to *Feſulanum*, being very bright, yet in continual ſhadow, never ſeeing Sun, where theſe Phairy women have their habitation, which are to be ſeen of them which come thither for water.



Plutarch alſo affirmeth, that they have exemptile eyes as aforeſaid; and that as often as they go from home, they put in their eyes, wandring abroad by habitations, ſtreets, and croſs ways, entring into the aſſemblies of men, and prying ſo perfectly into every thing, that nothing can eſcape them, be it never ſo well covered: you will think (ſaith he) that they have the eyes of Kites, for there is no ſmall mote but they eſpy it, nor any hole ſo ſecret but they finde it out, and when they come home again, at the very entrance of their houſe they pull out their eyes, and caſt them aſide, ſo being blinde at home, but ſeeing abroad. If you ask me (ſaith he) what they do at home, they ſit ſinging and making of wool, and then turning his ſpeech to the *Florentins*, ſpeaketh in this manner: *Vidiſtiſne obſecro Lamias iſtas, viri Florentini, quæ ſe & ſua neſciunt, alios & aliena ſpeculantur? Negatis? atqui tamen ſunt in urbibus frequentes: verum perſonatæ incedunt, homines credas, Lamiæ ſunt*: that is to ſay; O ye *Florentines*, did you ever ſee ſuch *Phairies*, which were buſie in prying into the affairs of other men, but yet ignorant of their own? Do you deny it? yet do there commonly walk up and down the City, *Phairies* in the ſhapes of men.

There were two women called *Macho*, and *Lamo*, which were both fooliſh and mad, and from the ſtrange behaviours of them, came the firſt opinion of the *Phairies*: there was alſo an ancient *Lybian* woman called *Lamia*, and the opinion was, that if theſe *Phairies* had not whatſoever they demanded, preſently they would take away live children, according to theſe verſes of *Horace.*

Nec quodcunque volet, poſcat ſibi fabula credi,
Neu pranſæ Lamiæ vivum puerum extrahat alvo.

A ſtory of a Phairy woman.

It is reported of *Menippus* the *Lycian*, that he fell in love with a ſtrange woman, who at that time ſeemed both beautiful, tender, and rich, but in truth there was no ſuch thing, and all was but a fantaſtical oſtentation; ſhe was ſaid to inſinuate herſelf into his familiarity, after this manner: as he went upon a day alone from *Corinth* to *Cenchrea*, he met with a certain phantaſm or ſpectre like a beautiful woman, who took him by the hand, and told him that ſhe was a *Phœnician* woman, and of long time had loved him dearly, having ſought many occaſions to manifeſt the ſame, but could never finde opportunity until that day, wherefore ſhe entreated him to take knowledge of her houſe, which was in the Suburbs of *Corinth*, therewithal pointing unto it with her finger, and ſo deſired his preſence: The young man ſeeing himſelf thus wooed by a beautiful woman, was eaſily overcome by her allurements, and did oftentimes frequent her company.

There was a certain wiſe man, and a Philoſopher, which eſpyed this ſame, and ſpake unto *Menippus* in this manner: *O formoſe, & a formoſis expetite mulieribus, ophin thalpeis, cai ſu ophis?* that is to ſay, O fair *Menippus*, beloved of beautiful women, art thou a Serpent and doſt nouriſh a Serpent? by which words he gave him his firſt admonition, or inkling of a miſchief, but not prevailing, *Menippus* purpoſed to marry with this Spectre, her houſe to the outward ſhew being richly furniſhed with all manner of houſhold goods; then ſaid the wiſe man again unto *Menippus*, this gold, ſilver, and ornaments of houſe, are like to *Tantalus* Apples, who are ſaid by *Homer* to make a fair ſhew, but to contain in them no ſubſtance at all: even ſo whatſoever you conceive of this riches, there is no matter or ſubſtance in the things which you ſee, for they are only inchanted Images and ſhadows, which that you may believe, this your neat Bride is one of the *Empuſæ* called *Lamiæ* or *Mormolycæ*, wonderful deſirous of copulation with men, and loving their fleſh above meaſure, but thoſe whom they do entice, with their venereal marts, afterward they devoure without love or pity, feeding upon their fleſh: at which words, the wiſe man cauſed the gold and ſilver plate and houſhold ſtuffe, Cooks and Servants, to vaniſh all away; Then did the Spectre like unto one that wept, entreat the wiſe man that he would not torment her, nor yet cauſe her to confeſs what manner of perſon ſhe was; but he on the other ſide being inexorable, compelled her to declare the whole truth, which was, that ſhe was a *Phairy*, and that ſhe purpoſed to uſe the company of *Menippus*, and feed him fat with all manner of pleaſures, to the intent that afterward ſhe might eat up and devour his body; for all their kinde love was but only to feed upon beautiful young men.

Cœlius.

The true definition of *Phairies*.

Theſe and ſuch like ſtories and opinions there are of *Phairies*, which in my judgement ariſe from the preſtigious apparitions of Devils, whoſe delight is to deceive and beguile the mindes of men with errour, contrary to the truth of holy Scripture, which doth no where make mention of ſuch inchanting creatures; and therefore if any ſuch be, we will hold them the works of the Devil, and not of God, or rather I beleeve, that as Poets call Harlots by the name of *Charybdis*, which devoureth and ſwalloweth whole Ships and Navies, alluding to the inſatiable gulph of the Sea, ſo the *Lamiæ* are but Poetical allegories of beautiful Harlots, who after they have had their luſt by men, do many times devour and make them away, as we read of *Diomedes* daughters; and for this cauſe alſo Harlots are called *Lupæ*, She-wolves, and *Lepores*, Hares.

Their names and deſcription.

To leave therefore theſe fables, and come to the true deſcription of the Lamia, we have in hand. In the four and thirty chapter of Eſay, we do finde this beaſt called *Lilith* in the *Hebrew*, and tranſlated by the Ancients *Lamia*; which is there threatned to poſſeſs *Babel*. Likewiſe in the fourth chapter of the Lamentations, there it is ſaid in our *Engliſh* tranſlation, that the Dragons lay forth their breaſts, in *Hebrew* they are called *Ethannim*, which by the confeſſion of the beſt Interpreters, cannot ſignifie Dragons, but rather Sea-calves, being a general word for ſtrange wilde Beaſts. Howbeit the matter being well examined, it ſhall appear that it muſt needs be this Lamia, becauſe of her great breaſts, which are not competible, either to the Dragon or Sea-calves; ſo then we will take it for granted, by the teſtimony of holy Scripture, that there is ſuch a Beaſt as this. *Chryſoſtomus Dion* alſo writeth that there are ſuch Beaſts in ſome part of *Lybia*, having a womans face, and very beautiful, alſo very large and comely ſhapes on their breaſts, ſuch as cannot be counterfeited by the art of any Painter, having a very excellent colour in their fore-parts without wings, and no other voice but hiſſing like Dragons: they are the ſwifteſt of foot of all earthly Beaſts, ſo as none can eſcape them by running; for by their celerity they compaſs their prey of Beaſts, and by their fraud they overthrow men. For when as they ſee a man, they lay open their breaſts, and by the beauty thereof, entice them to come near to conference, and ſo having them within their compaſs, they devour and kill them: unto the ſame things ſubſcribe *Cœlius* and *Giraldus*; adding alſo, that there is a certain crooked place in *Lybia*, near the Sea-ſhore, full of ſand like to a ſandy Sea, and all the neighbour places thereunto are Deſerts.

If it fortune at any time, that through ſhipwrack men come there on ſhore, theſe Beaſts watch upon them, devouring them all, which either endevour to travel on the Land, or elſe to return back again to Sea, adding alſo that when they ſee a man they ſtand ſtone ſtill, and ſtir not till he come unto them, looking down upon their breaſts, or to the ground; whereupon ſome have thought, they ſeeing them at the firſt ſight, have ſuch a deſire to come near them, that they are drawn into their compaſs, by a certain natural Magical Witch-craft: but I cannot approve their opinions, either in this or in that, wherein they deſcribe him with Horſes feet, and hinder-parts of a Serpent; but yet I grant that he doth not only kill by biting, but alſo by poyſoning, feeding upon the carcaſſe which he hath devoured: His ſtones are very filthy and great, and ſmell like a Sea-calves, for ſo *Ariſtophanes* writing of *Cleon* a Coriar, and luſtful man, compareth him to a Lamia, in the greatneſs and filthineſs of his ſtones; the hinder part of this Beaſt are like unto a Goat, his fore-legs like a Bears, his upper parts to a Woman, the body ſcaled all over like a Dragon, as ſome have affirmed by the obſervation of their bodies, when *Probus* the Emperour brought them forth into publick ſpectacle: alſo it is reported of them, that they devour their own young ones, and therefore they derive their name *Lamia* of *laniando*. And thus much for this Beaſt.

Of the LION.

BEing now come to the diſcourſe of the Lion (juſtly ſtyled by all writers the King of Beaſts) I cannot chuſe but remember that pretty fable of *Eſope*, concerning the ſociety and honour due unto this beaſt. For (ſaith he) the Lyon, Aſſe, and the Fox entred league and friendſhip together, and foraged abroad to ſeek convenient booties, at laſt having found one and taken the ſame, the Lion commanded the Aſſe to make diviſion thereof, the ſilly Aſſe regarding nothing but ſociety and friendſhip, and not honor and dignity, parted the ſame into three equall ſhares: one for the Lion, an other for the Fox, and the third for himſelf: Whereat the Lion diſdaining, becauſe he had made him equall unto the reſidue, preſently fell upon him and toar him in pieces; then bidding the Fox to make the diviſion, the crafty Fox divided the prey into two parts, aſſigning unto the Lion almoſt the whole booty, and reſerving to himſelf a very ſmall portion; which being allowed by the Lion, he asked him, who taught him to make ſuch a partition; Marry (quoth the Fox) the calamity of the Aſſe, whom you lately toar in pieces.

In like manner, I would be loath to be ſo ſimple, in ſharing out the diſcourſe of the Lion, as to make it equall with the treatiſe of the Beaſts lately handled, but rather according to the dignity thereof, to expreſſe the whole nature, in a large and copious tractate. For ſuch is the rage of illiterate or elſe envious men, that they would cenſure me with as great ſeverity, if I ſhould herein, like an Aſſe, forget my ſelf (if I were in their power) as the Lion did his colleague for one fooliſh partition.

And therefore as when *Lyſimachus*, the ſon of *Agathocles*, being caſt by *Alexander* to a Lion to be deſtroyed, becauſe he had given poiſon to *Caliſthenes* the Philoſopher, that was for the ending of his miſery, who was included by the ſaid *Alexander* in a cave to be famiſhed to death; upon ſome ſlight diſpleaſure the ſaid *Lyſimachus*, being ſo caſt unto the Lion, did not like a cowardly perſon offer himſelf to his teeth, but when the Lion came gaping at him to devour him, having wrapped his arme in his linnen garment, held him faſt by the tongue, untill he ſtopped his breath, and ſlew him; for which cauſe, he was ever afterwards the more loved and honored of *Alexander*, having at the time of his death, the command of all his treaſure.

In like ſort, I will not be afraid to handle this Lion, and to look into him both dead and alive, for the expreſſing of ſo much of his nature, as I can probably gather out of any good writer.

The ſeveral names of Lions

First of all therefore to begin with his ſeveral names, almoſt all the Nations of *Europe* do follow the *Greeks* in the nomination of this Beaſt, for they call him *Leon*; the *Latines*, *Leo*; the *Italians*, *Leone*; the *French* and *Engliſh*, *Lion*; the *Germans* and *Illyrians*, *Lew*; the reaſon of the Greek name *Leon*, is taken *para to leuſſein*, from the excellency of his ſight; or from *Laoo* ſignifying to ſee, and *Alaos* ſignifyeth blinde; for indeed there is no creature of the quantity of a Lion, that hath ſuch an admirable eye-ſight. The Lioneſſe, called in *Greek*, *Leena*, which word the *Latines* follow, from whence alſo they derive *Lea* for a Lioneſſe, according to this Verſe of *Lucretius*;

Irritata Lea jaciebant corpora ſaltu.

The *Hebrews* have for this Beaſt male and female, and their young ones, divers names: and firſt of all for the male Lion, in Deut. 33. they have *Ari*, and *Arieh*, where the *Caldeans* tranſlate it *Arievan*, the *Arabians*, *Aſad*; the *Perſians*, *Gehad*, and plurally in *Hebrew*, *Araiim*, *Araiot*, *Araoth*, as in the firſt of Zeph. *Araoth*, *Schojanim*, roaring Lions; and from hence comes *Ariel*, ſignifying valiant and ſtrong, to be the name of a Prince: and Iſai. 29. Ezek. 43. it is taken for the Altar of Burnt-offerings, becauſe the fire that came down from heaven, did continually lie upon that Altar, like a Lion in his den: or elſe becauſe the faſhion of the temple was like the proportion of the Lion; the *Aſſyrians* call a Lioneſſe *Arioth*, the *Hebrews* alſo call the male Lion *Labi*, and the female *Lebia*, and they diſtinguiſh *Ari*, and *Labi*, making *Ari* to ſignifie a little Lion, and *Labi* a great one; and in Num. 23. in this verſe, containing one of Gods promiſes to the people of *Iſrael* for victory againſt their enemies; *Behold my people ſhall ariſe like Labi, and be lifted up like Ari*: there the *Caldee* tranſlation rendereth *Labi*, *Leta*, the *Arabian*, *Jebu*; the *Perſians*, *Seber*; and *Munſter* ſaith that *Labi* is an old Lion. In Job 38. *Lebaim* ſignifieth Lions, and in Pſal. 57. *Lebaot* ſignifieth *Lioneſſes*. In the Prophet *Nahum* the 2. *Laiſch* is by the *Hebrews* tranſlated a Lion, and the ſame word Iſa. the 30. is by the *Caldees* tranſlated a Lions whelpe; and in the aforeſaid place of the Prophet *Nahum*, you ſhall finde *Arieh*, for a Lion, for a Lioneſſe, *Cephirim* for little Lions, *Labi* and *Gur* for a Lions whelp, all contained under one period. The *Sarazens* call a Lion at this day *Sebey*. And thus much for the name.

The ſeveral kinds of Lions.

In the next place we are to conſider the kinds of Lions, and thoſe are according to *Ariſtotle* two, the firſt of a leſſe and well compacted body, which have curled manes, being therefore called *Acro-Leontes*, and this is more ſluggiſh and ſearful then the other. The ſecond kinde of Lion hath a longer body, and a deeper looſe hanging mane, theſe are more noble, generous, and couragious againſt all kinds of wounds. And when I ſpeak of manes, it muſt be remembred, that all the male Lions are maned, but the females are not ſo; neither the Leopards which are begotten by the adultery of the Lioneſſe; for from the Lion, there are many Beaſts which receive procreation, as the *Lepard* or *Panther*.

Varinus.
Heſychius.

There is a beaſt called *Leontophonus*, a little creature in *Syria*, and is bred no where elſe but where Lions are generated. Of whoſe fleſh, if the Lion taſte, he loſeth that Princely power which beareth rule among four-footed beaſts, and preſently dyeth; for which cauſe, they which lie in waite to kill Lions, take the body of this *Leontophonus*, which may well be *Engliſhed*, *Lion-queller*, and burneth it to aſhes, afterwards caſting thoſe aſhes upon fleſh, whereof if the Lion taſte ſhe preſently dyeth, ſo great is the poiſon taken out of this beaſt for the deſtruction of Lions; for which cauſe, the Lion doth not undeſervedly hate it, and when ſhe findeth it, although ſhe dare not touch it with her teeth, yet ſhe teareth it in pieces with her claws. The urine alſo of this beaſt ſprinkled upon a Lion, doth wonderfully harm him, if it doth not deſtroy him. They are deceived that take this *Lion-queller* to be a kinde of Worm, or reptile creature, for there is none of them that render urine; but this excrement is meerly proper to four-footed living-beaſts. And thus much I thought good to ſay of this beaſt in this place, which I have collected out of *Ariſtotle*, *Pliny*, *Solinus*, and other Authors aforeſaid, although his proper place be afterward among the Lions enemies.

Ælianus.

The *Chimera* is alſo faigned to be compounded of a Lion, a Goat, and a Dragon, according to this Verſe;

Prima Leo, poſtrema Draco, media ipſa Chimæra.

There be alſo many Fiſhes in the great Sea, about the Iſle *Taprobane*, having the heads of Lions, Panthers, Rams, and other beaſts. The Tygers of *Praſſa* are alſo engendred of Lions, and are twice ſo big as they. There are alſo Lions in *India*, (called *Formicæ*) about the bigneſs of *Egyptian* Wolves. *Camalopardales* have their hinder parts like Lions. The *Manticbora* hath the body of a Lion. The *Leucrocuta* the neck, tail, and breaſt like a Lion, and there is an allogorical thing cald *Dæmonium Leoninum*, a Lion Devil, which by *Bellunenſis*, is interpreted to be an allegory, ſignifying the mingling together reaſonable underſtanding with malicious hurtful actions.

Monſters bred like Lions.

It is reported alſo by *Ælianus*, that in the Iſland of *Choos*, a Sheep of the flock of *Nicippus*, contrary to the nature of thoſe beaſts, in ſtead of a Lamb, brought forth a Lion, which monſtrous prodigy was ſeen and conſidered of many; whereof divers gave their opinions what it did portend, namely, that *Nicippus* of a private man ſhould effect ſuperiority and become a Tyrant: which ſhortly after came to paſſe, for he ruled all by force and violence, not with fraud or mercy; for *Fraus* (ſaith *Cicero*) *quaſi Vulpeculæ, vis Leonis eſſe videtur*; that is, *Fraud is the property of a Fox, and violence of a Lion.*

Cœlius.

Herodotus.

It is reported that *Meles* the firſt King of *Sardis*, did beget of his Concubine a Lion, and the Soothſayers told him that on what ſide ſoever of the City he ſhould lead that Lion, it ſhould remain inexpugnable, and never be taken by any man; whereupon *Meles* led him about every tower and rampier of the City, which he thought was weakeſt, except only one tower, ſtanding towards the River *Tmolus*, becauſe he thought that ſide was invincible, and could never by any force be entred, ſcaled or ruinated. Afterwards in the reign of *Creſus*, the City was taken in that place by *Darius*.

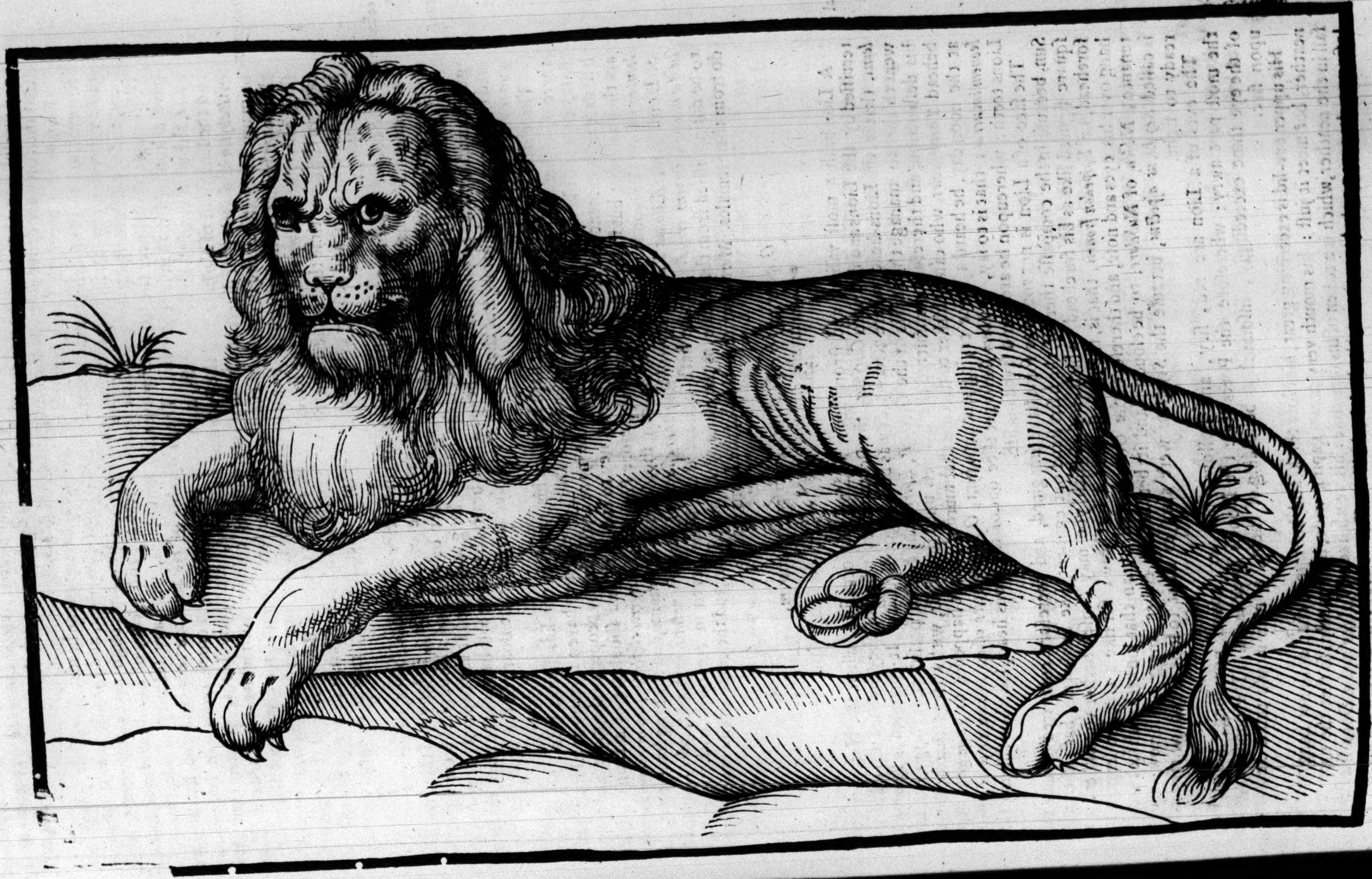
Countries without Lions.

There are no Lions bred in *Europe*, except in one part of *Thracia*, for the *Nemean*, or *Celonean* Lion is but a fable; yet in *Ariſtotles* time, there were more famous and valiant Lions in that part of *Europe*, lying betwixt the Rivers *Achelous* and *Neſſus*, then in all *Africa* and *Aſia*. For when *Xerxes* led his Army through *Peonia* over the River *Chidorus*, the Lions came and devoured his Camels in the night time: But beyond *Neſſus* towards the Eaſt, or *Achelous* towards the Weſt, there was never man ſaw a Lion in *Europe*; but in the region betwixt them which was once called the Countrey of the *Abderites*, there were ſuch ſtore, that they wandered into *Olympus*, *Macedonia*, and *Theſſalia*; but yet of purpoſe Princes in Caſtles and Towers for their pleaſures ſake, do nouriſh and keep Lions in *Europe*, where ſometimes alſo they breed, as hath been ſeen both in *England* and *Florence*. *Peloponneſus* alſo hath no Lions, and therefore when *Homer* maketh mention of *Dianas* hunting in the mountains of *Erimanthus* and *Taygetus*, he ſpeaketh not of Lions, but of Harts and Boars.

Countries of their breed.

All the Countries in the Eaſt and South, lying under the heat of the Sun, do plentifully breed Lyons, and except in hot Countries they breed ſeldom, and therefore the Lions of *Feſſe*, *Temeſu*, *Angad*, *Hippo*, and *Tunis*, are accounted the moſt noble and audacious Lions of *Africk*, becauſe they are hot Countries. But the Lions of colder Countries have not half ſo much ſtrength,

ſtomach,



ſtomach, and courage. Theſe *Lybian* Lions have not half ſo bright hair as others, their face and neck are very horrible rough, making them to look fearfully, and the whole colour of their bodies betwixt brown and black; *Apollonius* ſaw Lions alſo beyond *Nilus*, *Hiſhaſis*, and *Ganges*: and *Strabo* affirmeth that there are Lions about *Meroe*, *Aſtapa*, and *Aſtabore*, which Lions are very gentle, tame, and fearful, and when the Dog ſtar called *Canis Sirius* doth appear, whereof cometh the Dog days, that then they are drove away by the bitings of great gnats.

Ethiopia alſo breedeth Lions, being black coloured, having great heads, long hair, rough feet, firy eyes, and their mouth betwixt red and yellow. *Cilicia*, *Armenia*, and *Parthia*, about the mouth of *Iſter*, breed many fearful Lions, having great heads, thick and rough necks and cheeks, bright eyes, and eye-lids hanging down to their noſes. There are alſo plenty of Lions in *Arabia*, ſo that a man cannot travel neer the City *Aden* over the mountains, with any ſecurity of life, except he have a hundred men in his company. The Lions alſo of *Hircania* are very bold and hurtful; and *India*, the mother of all kinde of beaſts, hath moſt black, fierce and cruell Lions. In *Tartaria* alſo, and the Kingdom of *Narſinga*, and the Province of *Abaſia*, are many Lions, greater then thoſe of *Babylon* and *Syria*; of divers and ſundry intermingled colours, both white, black and red. There be many Lions alſo in the Province of *Gingui*, ſo that for fear of them, men dare not ſleep out of their own houſes in the night time. For whomſoever they finde, they devour and tear in pieces. The ſhips alſo which go up and down the River, are not tyed to the bank ſide for fear of theſe Lions, becauſe in the night time they come down to the waterſide, and if they can finde any paſſage into the barks, they enter in, and deſtroy every living creature, wherefore they ride at Ancor in the middle of the River.

Vartomannus.

The colour of Lions.

Cardanus.

The colour of Lions is generally yellow, for theſe before ſpoken of, black, white and red, are exorbitant. Their hair ſome of them is curled, and ſome of them long, ſhaggy and thin, not ſtanding upright, but falling flat, longer before, and ſhorter behind, and although the curling of his hair be a token of ſluggiſh timidity, yet if the hair be long and curled at the top only, it portendeth generous animoſity. So alſo if the hair be hard: for beaſts that have ſoft hair, as the Hart, the Hare, and the Sheep, are timorous, but they which are harder haired, as the Boar and the Lion, are more audacious and fearleſs.

There is no four footed beaſt, that hath hairs on his neather eye-lids like a man, but in ſtead thereof, either their face is rough all over as in a Dog, or elſe they have a foretop as a Horſe and an Aſſe, or a mane like a Lion. The Lioneſſe hath no mane at all, for it is proper to the male, and as long hairs are an ornament to a Horſes mane, ſo are they to the neck and ſhoulders of a Lion; neither are they eminent but in their full age, and therefore *Pliny* ſaid; *Turrigeros elephantorum miramur humeros, leonum jubas.* We wonder at the Tower-bearing ſhoulders of Elephants, and the long hanging manes of Lions. And *Ælianus Rationis expertibus mari præſtantiam quandam natura largita eſt, juba Leo antecellit fœminam, ſerpens criſta.* Nature hath honoured the Male, even in creatures without reaſon, to be diſtinguiſhed from the female, as the mane of the male Lion, and the comb of the male Serpent do from their females. *Martial* writeth thus of the Lions mane:

O quantum per colla decus, quem ſparſit honorem,
Aurea lunatæ cum ſtetit unda jubæ!

The ſeveral parts.

Plutarch.

A Lion hath a moſt valiant and ſtrong head, and for this occaſion, when the Nymphes were terrified by the Lions and fled into *Caryſtus*, the Promontory wherein they dwelled was called *Coleon*, that is, the Lions-head, where afterwards was built a goodly City. It fortuned as *Themiſtocles* went thither to manage the affairs of the *Grecians*, *Epiries* the *Perſian*, preſident of *Phrygia*, intended his deſtruction, and therefore committed the buſineſs unto one *Piſis*, with charge that he ſhould behead *Themiſtocles*, who came thither to execute that murder; but it happened as *Themiſtecles* ſlept at the noon day, he heard a voice crying out unto him, *O Themiſtocles effuge leonum caput ne ipſe in leonem incurras*; that is to ſay, O *Themiſtocles* get thee out of the Lions head, leſt thou fall into the Lions teeth: whereupon he aroſe and ſaved his life.

The face of a Lion is not round as ſome have imagined, and therefore compared it unto the Sun, becauſe in the compaſſe thereof, the hairs ſtand out eminent like Sunbeams, but rather it is ſquare figured like as his forehead, which *Ariſtotle* ſaith, you may chuſe whether you will call it a forehead, or *Epipedon frontis*, that is, the ſuperficies of a forehead; for like a cloud it ſeemeth to hang over his eyes and noſe, and therefore the *Germans* call a man that looketh with ſuch a countenance, *Niblen* of *Nubilare*, to be cloudy, and it betokeneth either anger or ſorrow; alſo it is called *Scythicus aſpectus*, becauſe the *Scythians* were alwayes wont to look as though they were ready to fight.

The eyes of a Lion are red, firy, and hollow, not very round nor long, looking for the moſt part awry; wherefore the Poets ſtyle the Lioneſs *Torva leæna.* The pupils or apples of the eye ſhine exceedingly, inſomuch as beholding of them, a man would think he looked upon fire.

His upper eye-lid is exceeding great, his Noſe thick, and his upper chap doth not hang over the neather, but meet it juſt: his mouth very great, gaping wide, his lips thin, ſo that the upper parts fall in the neather, which is a token of his fortitude: his teeth like a Wolves and a Dogs, like ſawes, loſing or changing only his canine teeth, the tongue like a Cats or Leopards, as ſharp as a file, wearing through the ſkin of a man by licking; his neck very ſtiffe, becauſe it conſiſteth but of one bone without joynts, like as in a Wolfe and an Hyæna; the fleſh is ſo hard as if it were all a ſinew: There are no knuckles or turning joynts in it called *Spondyli*, and therefore he cannot look backward.

The greatneſs and roughneſs of his Neck, betokeneth a magnanimous and liberal minde; Nature hath given a ſhort Neck unto the Lion, as unto Bears and Tygers, becauſe they have no need to put it down to the earth to feed like an Ox, but to lift it up to catch their prey. His ſhoulders and breaſts are very ſtrong, as alſo the forepart of his body, but the members of the hinder part do degenerate. For as *Pliny* ſaith, *Leoni vis ſumma in pectore*, the chiefeſt force of a Lion is in his breaſt.

The part above his throat-hole is looſe and ſoft, and his *Metaphrenon* or part of his back againſt his heart (ſo called) betwixt his ſhoulder-blades, is very broad. The back bone and ribs are very ſtrong, his ventricle narrow, and not much larger then his maw. He is moſt ſubject to wounds in his flanck, becauſe that part is weakeſt, in all other parts of his body he can endure many blowes.

About his loyns and hip-bone he hath but little fleſh. The lioneſſe hath two udders in the midſt of her belly, not becauſe ſhe bringeth forth but two at a time, for ſometimes ſhe bringeth more, but becauſe ſhe aboundeth in milk, and her meat (which ſhe getteh ſeldom) and is for the moſt part fleſh, turneth all into milk. The tail of a Lion is very long, which they ſhake oftentimes, and by beating their ſides therewith, they provoke themſelves to fight. The *Grecians* call it *Alcea*: and *Alciatus* maketh this excellent emblem thereof upon wrath.

Alceam veteres caudam dixere Leonis,
Quâ ſtimulante iras concipit ille graves,
Lutea quum ſurgit bilis crudeſcit, & atro
Felle dolor, furias excitat indomitas.

The neather part of his tail is full of hairs and griſtles; and ſome are of opinion, that there is therein a little ſting wherewithal the Lion pricketh it ſelf, but of this more afterwards.

Ælianus.
Ariſtotle.

The bones of Lions have no marrow in them, or elſe it is ſo ſmall that it ſeemeth nothing: therefore they are the more ſtrong, ſolid, and greater then any other beaſt of their ſtature, and the males have ever more harder bones then the female, for by ſtriking them together you may beget fire, as by the percuſſion of Flints; and the like may be ſaid of other beaſts that live upon fleſh, yet are ſome of the bones hollow. The legs of a Lion are very ſtrong and full of Nerves, and in ſtead of an ankle-bone it hath a crooked thing in his paſtern, ſuch as children uſe to make for ſport, and ſo alſo hath the *Lynx*.

Pliny.
Cardanus.

His forefeet have five diſtinct toes or clawes on each foot, and the hinder feet but four. His clawes are crooked, and exceeding hard, and this ſeemeth a little miracle in nature, that Leopards, Tygers, Panthers, and Lions, do hide their clawes within their skin when they go or run, that ſo they might not be dulled, and never pull them forth except when they are to take or devour their prey: alſo when they are hunted, with their tails they cover their footſteps with earth, that ſo they may not be bewrayed. *Solinus.*

The Epithets of this beaſt are many, whereby the authors have expreſſed their ſeveral natures, ſuch are theſe, the curſt kind of Lions, full of ſtomach, ſharp, bold, greedy, blunket, fleſh-eater, *Caſpian*, *Cleonean*, the Lord and King of the beaſts and woods, fierce, wilde, hairy, yellow, ſtrong, fretting, teeth-gnaſhing, *Nemean*, thundering, raging, *Getulian*, rough, lowring, or wry-faced, impatient, quick, untamed, free, and mad, according to this ſaying of the Poet;

Fertur Prometheus inſani Leonis
Vim ſtomacho appoſuiſſe noſtro.

For as the Eagle is faigned to feed upon the heart of *Prometheus*; ſo alſo is the Lion the ruler of the heart of man, according to the *Aſtrologians*. And from hence it cometh that a man is ſaid to bear a ſtomach when he is angry, and that he ſhould be more ſubject to anger when he is hungry, then when he is full of meat.

The Epithets of Lions.

Theſe alſo are the Epithets of Lions, wrathful, maned, *Lybian*, deadly, ſtout, great, *Maſſilian*, *Mauritanian*, *Parthian*, *Phrygian*, *Molorchean*, *Carthaginian*, preying, ravening, ſtubborn, ſnatching, wrinkled, cruell, bloudy, terrible, ſwelling, vaſt, violent, *Marmarican*.

The voice of Lions.

Theſe alſo are the Epithets of the Lioneſſe, *African*, bold, ſtony-hearted, vengible, cave-lodging, fierce, yellow, *Getulian*, *Hyrcanian*, ungentle, *Lybian*, cruell, frowning, and terrible. By all which the nature of this Beaſt, and ſeveral properties thereof, are compendiouſly expreſſed in one word.

The voice of the Lion is called *Rugitus*, that is, roaring, or bellowing; according to this Verſe of the Poet;

Tigrides indomitæ rancant, rugiuntq; Leones.

And therefore cometh *Rugitus Leonis*, the roaring of the Lion. It is called alſo *Gemitus*, and *Fremitus*, as *Virgil*, *Fremit leo ore cruento.* And again;

Hinc exaudiri gemitus, iraq; leonum
Vincla recuſantum, & ſera ſub nocte rudentum.

And when the young Lions have gotten a prey, in token thereof they roar like the bleating of a Calf, thereby calling their elders to participate with them. The places of their aboad are in the mountains, according to this ſaying; *Leo cacumina montium amat.*

Pa. Venetus.

Their ſight and their ſmelling are moſt excellent, for they ſleep with their eyes open, and becauſe of the brightneſs of their eyes, they cannot endure the light of fire; for fire and fire cannot agree: alſo their ſmelling (for which cauſe they are called *Odorati*) is very eminent, for if the Lioneſſe have committed adultery with the Leopard, the male diſcovereth it by the ſenſe of his Noſe, and for this cauſe alſo they are tamed in *Tartaria*, and are uſed for hunting Boars, Bears, Hares, Roe-bucks, wilde Aſſes, as alſo for wilde and outlandiſh Oxen, and they were wont to be carryed to hunting, two Lions in a Cart together, and either of them had a little Dog following them.

Ælianus.
The eſtimation of a Lioneſs, and the general rage of Lions.
Ariſtotle.

There is no beaſt more vehement then a ſhe or female Lion, for which cauſe *Semiramis* the *Babylonian* tyranneſs, eſteemed not the ſlaughter of a male Lion or a Libbard; but having gotten a Lioneſſe, above all other ſhe rejoyced therein. A Lion when he eateth is moſt fierce, and alſo when he is hungry, but when he is ſatisfied and filled he layeth aſide that ſavage quality, and ſheweth himſelf of a more meek and gentle nature, ſo that it is leſſe danger to meet with him filled then hungry, for he never devoureth any till famine conſtraineth him.

I have heard a ſtory of an *Engliſhman* in *Barbary* which turned *Moor*, and lived in the Kings Court, on a day it was ſaid in his preſence that there was a Lion within a little ſpace of the Court, and the place was named where it lodged. The *Engliſhman* being more then half drunk, offered to go and kill the Lion hand to hand, and therewithal armed himſelf with a Musket, Sword and Dagger, and other complements, and he had alſo about him a long Knife; ſo forth went this regenerate *Engliſh Moor*, more like a mad man then an adviſed Champion to kill this Lion, and when he came to it, he found it a ſleep, ſo that with no perill he might have killed her with his Musket before ſhe ſaw him: but he like a fool-hardy fellow, thought it as little honour to kill a Lyon ſleeping, as a ſtout Champion doth to ſtrike his enemy behind the back. Therefore with his Musket top he ſmote the Lion to awake it, whereat the beaſt ſuddenly mounted up, and without any thankes or warning, ſet his forefeet on this Squires breſt, and with the force of her body overthrew the Champion, and ſo ſtood upon him, keeping him down, holding her grim face and bloudy teeth over his face and eyes; a ſight no doubt that made him wiſh himſelf a thouſand miles from her, becauſe to all likelihood they ſhould be the grinders of his fleſh and bones, and his firſt executioner to ſend his curſed ſoul to the Devill for denying Jeſus Chriſt his Saviour. Yet it fell out otherwiſe, for the Lion having been lately filled with ſome liberal prey did not preſently fall to eat him, but ſtood upon him for her own ſafegard, and meant ſo to ſtand till ſhe was an hungry; during which time, the poor wretch had liberty to gather his wits together, and ſo at the laſt, ſeeing he could have no benefit by his Musket, Sword, or Dagger, and perceiving nothing before him but unavoidable death, thought for the ſaving of his credit, that he might not die in fooliſh infamy, to do ſome exploit upon the Lion whatſoever did betide him; and thereupon ſeeing the Lion did beſtride him, ſtanding over his upper parts, his hands being at ſome liberty, drew out his long *Barbarian* knife, and thruſt the ſame twice or thrice into the Lions flank: which the Lion endured, never hurting the man, but ſuppoſing the wounds came ſome other way, and would not forſake her booty to look about for the means whereby ſhe was harmed. At laſt finding her ſelf ſick, her bowels being cut aſunder within her (for in all hot bodies wounds work preſently) ſhe departed away from the man above ſome two yards diſtance, aud there lay down and dyed. The wretch being thus delivered from the jawes of death, you muſt think made no ſmall brags thereof in the Court, notwithſtanding, he was more beholding to the good nature of the Lion, which doth not kill to eat except he be hungry, then to his own wit, ſtrength, or valour.

Their food and eating.
Albertus.
Avicen.

The Male Lion doth not feed with the female, but either of them apart by themſelves. They eat raw fleſh, for which cauſe the *Grecians* call them *Omeſteres*, *Omoboroi*, and *Omophagoi*: the young ones themſelves cannot long be fed with milke, becauſe they are hot and dry; being at liberty they never want meat, and yet they eat nothing but that which they take in hunting, and they hunt not but once a day at the moſt, and eat every ſecond day: whatſoever they leave of their meat, they return not to it again to eat it afterwards, whereof ſome aſſigned the cauſe to be in the meat, becauſe they can endure nothng which is unſweet, ſtale, or ſtinking; but in my opinion they do it through the pride of their natures, reſembling in all things a Princely majeſty, and therefore ſcorn to have one diſh twice preſented to their own table. But tame Lions being conſtrained through hunger, will eat dead bodies, and alſo cakes made of meal and hony, as may appear by that tame Lion which came to *Apollonius*, and was ſaid to have the ſoul in it of *Amaſis* King of *Egypt*, which ſtory is related by *Philoſtratus* in this manner.

There was (ſaith he) a certain man which in a leam led up and down a tame Lion like a Dog, whitherſoever he would, and the Lion was not only gentle to his leader, but to all other perſons that met him; by which means the man got much gains, and therefore viſited many Regions and Cities, not ſparing to enter into the temples at the time of ſacrificing, becauſe he had never ſhed bloud but was clear from ſlaughter, neither licked up the bloud of the Beaſts, nor once touched the fleſh cut in pieces for the holy Altar, but did eat upon Cakes made with meal and hony; alſo bread, Gourds, and ſod fleſh, and now and then at cuſtomary times did drink wine. As *Apollonius* ſat in a Temple, he came unto him in more humble manner, lying down at his feet, and looking up into his face, then ever he did to any, as if he had ſome ſpecial ſupplication unto him, and the people thought he did it for hope of ſome reward, at the command and for the gain of his Maſter: At laſt *Apollonius* looked upon the Lion, and told the people that the Lion did entreat him to ſignifie unto them what he was, and wherewithal he was poſſeſſed; namely that he had in him the ſoul of a man, that is to ſay, of *Amaſis* King of *Egypt*, who raigned in the Province of *Sai*. At which words the Lion ſighed deeply, and mourned forth a lamentable roaring, gnaſhing his teeth together, and crying with abundance of tears; whereat *Apollonius* ſtroked the Beaſt, and made much of him, telling the people that his opinion was, foraſmuch as the ſoul of a King had entred into ſuch a kingly Beaſt, he judged it altogether unfit that the Beaſt ſhould go about and beg his living, and therefore they ſhould do well to ſend him to *Leontopolis*, there to be nouriſhed in the Temple. The *Egyptians* agreed thereunto, and made ſacrifice to *Amaſis*, adorning the Beaſt with Chains, Bracelets, and branches, ſo ſending him to the inner *Egypt*, the Prieſts ſinging before him all the way, their idolatrous *Hymnes* and *Anthems*; but of the transfiguration of men into Lions, we ſhall ſay more afterward, only this ſtory I rehearſed in this place to ſhew the food of tame and encloſed Lions.

The ſubſtance of ſuch transfigurations, I hold to be either Poetical, or elſe Diabolical. The food therefore of Lions is moſt commonly of meek and gentle Beaſts, for they will not eat Wolves or Bears, or ſuch Beaſts as live upon ravening, becauſe they beget in them melancholy: they eat their meat very greedily, and devour many things whole without chewing, but then they faſt afterwards two or three days together, never eating untill the former be digeſted; but when they faſt, that day they drink, and the next day they eat, for they ſeldom eat and drink both in one day: and if any ſtick in his ſtomach which he cannot digeſt, becauſe it is overcharged, then doth he thruſt down his nails into his throat, and by ſtraining his ſtomach pulleth it out again; the ſelf ſame thing he doth when he is hunted upon a full belly: And alſo it muſt not be forgotten that although he come not twice to one carcaſſe, yet having eaten his belly full, at his departure by a wilful breathing upon the reſidue, he ſo corrupteth it, that never after any beaſt will taſte thereof: for ſo great is the poiſon of his breath, that it putrifieth the fleſh, and alſo in his own body after it is ſuddainly ripped up, the intrails ſtink abominably. The reaſons whereof I take to be their great voracity which cannot but corrupt in their ſtomach, and alſo the ſeldom emptying of their belly, for they utter their excrements not above once in three days, and then alſo it is exceeding dry like a Dogs, ſtinking abominably, and ſending forth much winde: and becauſe their urine ſmelleth ſtrongly, which alſo they render like a Dog holding up one of their legs: They never make water, but firſt of all they ſmell to the tree, I mean the male Lion. They fall upon ſome creatures for deſire of meat, and eſpecially when they are old, and not able to hunt they go to Towns and Villages, to the ſtables of Oxen, and folds of ſheep, and ſometimes to men and devour them, wherefore they never eat herbs but when they are ſick.

Ælianus.
Philes.

Solinus.

Pliny.
Ariſtotle.

Polybius affirmeth that he ſaw them beſiege and compaſſe about many Cities of *Africk*, and therefore the people took and hanged them up upon croſſes and gallowſes by the high wayes to the terror of others. Wherefore as they excell in ſtrength and courage, ſo alſo they do in cruelty, devouring both men and beaſts, ſetting up troops of Horſemen, depopulating the flocks and herds of Cattel, carrying ſome alive to their young ones, killing five or ſix at one time, and whatſoever they lay hold on, they carry it away in their mouth, although it be as big as a Camel; for they love Camels fleſh exceedingly.

The cruelty of Lions.

Leo Afer.
Philes.
Herodotus.

And therefore the Lions that ſet upon the Camels of *Xerxes*, neither medled with the Men, Oxen, nor victuals, but only the Camels: ſo that it ſeemeth no meat is ſo acceptable unto them.

They hate above meaſure the wilde Aſſes, and hunt and kill them, according to the ſaying of the Wiſeman, *Leonum venatio onager*; the wilde Aſſe is the game of Lions, Ecclus. 13. They hate alſo the *Thoes*, and fight with them for their meat, becauſe both of them live upon fleſh, of whom *Gratius* writeth;

The hatred of Lions and their ſeveral enemies.

Thoes commiſſos (clariſſima fama) Leones
Et ſubiere aſtu, & parvis domuere lacertis.

They eat alſo Apes, but more for Phyſick then for nouriſhment. They ſet upon Oxen, uſing their own ſtrength very prudently, for when they come to a ſtall or herd, they terrifie all, that they may take one. They eat alſo young Elephants, as we have ſhewed before in the ſtory of Elephants: and ſo terrible is the roaring of the Lion, that he terrifieth all other Beaſts, but being at his prey, it is ſaid he maketh a circle with his tail, either in the ſnow, or in the duſt, and that all Beaſts included within the compaſſe of that circle, when they come into it preſently know it, and dare not for their live paſſe over it (believe this who that liſt.)

Ælianus.

Ambroſius.

It is alſo ſaid, that when the Beaſts do hear his voice, all of them do keep their ſtanding and dare not ſtir a foot; which aſſertion wanteth not good reaſon, for by terrour and dread they ſtand amazed. And the writer of the Gloſſe upon the Prophet *Amos*, upon theſe words of the Prophet, *Nunquid rugiet Leo in ſaltu, niſi habuerit prædam?* Will the Lion roar except he have a prey? *Leo* (ſaith he) *cum famem patitur, ſi videt prædam dat rugitum, quo audito feræ ſtant fixo gradu ſtupefactæ*: that is to ſay, the Lion when he is hungry and ſeeth his prey roareth, and then all the wilde Beaſts ſtand ſtill amazed.

The drink of Lions.

The terrors of Lions and means whereby they periſh.

They drink but little, and alſo ſeldom, as we have ſaid already, and therefore *Cyrus* praiſing good Souldiers in *Xemphon*, uſeth theſe words, *Vos famem habetis pro opſonio, & hydropoſian de raon toon Leontoon pherete*; that is to ſay, hunger is your ſhambles, and you are more patient of thirſt then Lions, although you drink water. Notwithſtanding this great valiancy of Lions, yet have they their terrors, enemies, and calamities, not only by Men, but alſo by Beaſts, over whom they claim a ſoveraignty. We have ſhewed already in the ſtory of Dogs, that the great Dogs in *India* and *Hircania*, do kill Lions, and forſake other Beaſts to combat with them. There is a *Tygre* alſo called *Lauzani*, which in many places is twice as big as a Lion, that killeth them, and deſpiſeth the huge quantity of Elephants. *Martial* alſo writeth, that he ſaw a tame Tygre devour a wilde Lion. A Serpent, a Snake doth eaſily kill a Lion, whereof *Ambroſius* writeth very elegantly; *Eximia Leonis pulcritudo per comantes cervicis toros excutitur, cum ſubito a ſerpente os pectore tenus attollitur, itaque Coluber cervum fugit ſed Leonem interficit.* The ſplendant beauty of a Lion in his long curled mane is quickly abated and allayed when the Serpent doth but lift up his head to his breaſt; for ſuch is the ordinance of God, that the Snake which runneth from a fearful Hart, ſhould without all fear kill a couragious Lion; and the writer of S. *Marcellus* life, *Alla O men dracon*, &c. How much more will he fear a great Dragon, againſt whom he hath not power to lift up his tail? And *Ariſtotle* writeth that the Lion is afraid of the Swine; and *Raſis* affirmeth as much of the Mouſe.

Pliny.
Ambroſe.
Animalia ſolaria.

The Cock alſo both ſeen and heard for his voice and comb, is a terror to the Lion and Baſiliske, and the Lion runneth from him when he ſeeth him, eſpecially from a white Cock; and the reaſon hereof, is becauſe they are both partakers of the Suns qualities in a high degree, and therefore the greater body feareth the leſſer, becauſe there is a more eminent and predominant ſunny property in the Cock, then in the Lion.

Lucretius deſcribeth this terrour notably, affirming that in the morning when the Cock croweth the Lions betake themſelves to flight, becauſe there are certain ſeeds in the body of Cocks, which when they are ſent and appear to the eyes of Lions, they vex their puples and apples, and make them againſt nature become gentle and quiet; the Verſes are theſe;

Quinetiam gallum nocte explaudentibus alis
Auroram clara conſuetam voce vocare,
Quem nequeunt rapidi contra conſtare Leones
Inq; tueri: ita continuo meminere fugai.

Nimirum quia ſunt gallorum in corpore quædam
Semina; quæ quum ſunt oculis immiſſa Leonum
Pupillas interfodiunt, acremq; dolorem
Præbent, ut nequeant contra durare feroces.

We have ſpoken already of the *Leontophonus* how ſhe rendreth a urine which poiſoneth the Lion; the noiſes of wheeles and chariots do alſo terrifie them, according to the ſaying of *Seneca*, *Leoni pavida ſunt ad leviſſimos ſtrepitus pectora*. The high ſtomach of a Lion is afraid of a little ſtrange noiſe. *Anthologius* hath an excellent Epigram of one of *Cybels* Prieſts, who travelling in the mountains by reaſon of froſt, cold, and ſnow, was driven into a Lions den, and at night when the Lion returned, he ſcared him away by the ſound of a Bell. The like alſo ſhall be afterwards declared of Wolves in their ſtory.

Ælianus.

Pliny.

They are alſo afraid of fire, *Ardenteſq; faces, quas quamvis ſævus horret*; For as they are inwardly filled with natural fire (for which cauſe by the *Egyptians* they were dedicated to *Vulcan*) ſo are they the more afraid of all outward fire, and ſo ſuſpicious is he of his welfare, that if he tread upon the rinde or bark of Oke or the leaves of Oſyer, he trembleth and ſtandeth amazed. And *Democritus* affirmeth that there is a certain herb growing no where but in *Armenia* and *Cappadocia*, which being laid to a Lion, maketh him to fall preſently upon his back and lie upward without ſtirring, and gaping with the whole breadth of his mouth, the reaſon whereof (*Pliny* ſaith) is becauſe it cannot be bruiſed.

Leo Afer.
Their luſt of copulation.

There is no Beaſt more deſirous of copulation then a Lioneſs, and for this cauſe the males oftentimes fall forth, for ſometimes eight, ten, or twelve males follow one Lioneſs, like ſo many Dogs one ſalt Bitch: for indeed their natural conſtitution is ſo hot, that at all times of the year both ſexes deſire copulation, although *Ariſtotle* ſeemeth to be againſt it, becauſe they bring forth only in the ſpring.

The adultery of Lioneſſes.
Pliny.
Apollonius.

The Lioneſs (as we have ſhewed already) committeth adultery by lying with the *Libbard*, for which thing ſhe is puniſhed by her male if ſhe waſh not her ſelf before ſhe come at him; but when ſhe is ready to be delivered, ſhe flyeth to the lodgings of the Libbards, and there among them hideth her young ones, (which for the moſt part are males) for if the male Lion finde them, he knoweth them and deſtroyeth them, as a baſtard and adulterous iſſue, and when ſhe goeth to give them ſuck ſhe faigneth as though ſhe went to hunting.

By the copulation of a Lioneſs and an Hyæna is the *Ethiopian Crocuta* brought forth. The *Arcadian* Dogs, called *Leontomiges*, were alſo generated betwixt Dogs and Lions. In all her life long ſhe beareth but once, and that but one at a time, as *Eſop* ſeemeth to ſet down in that fable, where he expreſſeth that contention between the Lioneſs and the Fox, about the generoſity of their young ones: the Fox objecteth to the Lioneſs, that ſhe bringeth forth but one whelp at a time, but he on the contrary begetteth many cubs, wherein he taketh great delight; unto whom the Lioneſs maketh this anſwer: *Parere ſe quidem unum ſed Leonem*; that is to ſay, ſhe bringeth forth indeed but one, yet that one is a Lion; for one Lion is better then a thouſand Foxes, and true generoſity conſiſteth not in popularity, or multitude, but in the gifts of the minde joyned with honorable deſcent. The Lioneſſes of *Syria* bear five times in their life; at the firſt time five, afterwards but one, and laſtly they remain barren. *Herodotus* ſpeaking of other Lions, ſaith, they never bear but one, and that only once, whereof he giveth this reaſon, that when the whelp beginneth to ſtir in his Dams belly, the length of his claws pierce through her matrix, and ſo growing greater and greater, by often turning leaveth nothing whole; ſo that when the time of littering cometh ſhe caſteth forth her whelp and her womb both together, after which time ſhe can never bear more: but I hold this for a fable, becauſe *Homer*, *Pliny*, *Oppianus*, *Solinus*, *Philes*, and *Ælianus* affirm otherwiſe contrary, and beſides experience ſheweth the contrary.

Pollux.
Cælius.

When *Apollonius* travelled from *Babylon* by the way they ſaw a Lioneſs that was killed by hunters the Beaſt was of a wonderful bigneſs, ſuch a one as was never ſeen: about her was a great cry of the Hunters, and of other neighbours which had flocked thither to ſee the monſter, not wondering ſo much at her quantity, as that by opening of her belly, they found within her eight whelps, whereat *Apollonius* wondring a little, told his companions that they travelling now into *India* ſhould be a year and eight moneths in their journey; for the one Lion ſignified by his skill one year, and the eight young ones eight moneths. The truth is that a Lion beareth never above thrice, that is to ſay, ſix at the firſt, and at the moſt afterwards two at a time, and laſtly but one, becauſe that one proveth greater, and fuller of ſtomach, then the other before him; wherefore nature having in that accompliſhed her perfection, giveth over to bring forth any more. Within two moneths after the Lioneſs hath conceived the whelps are perfected in her womb, and at ſix moneths are brought forth blinde, weak, and (ſome are of opinion) without life, which ſo do remain three dayes together, untill by the roaring of the male their father, and by breathing in their face they be quickned, which alſo he goeth about to eſtabliſh by reaſon; but they are not worth the relating. *Iſidorus* on the other ſide declareth that for three dayes and three nights after their littering, they do nothing but ſleep, and at laſt are awaked by the roaring of their father: ſo that it ſhould ſeem without controverſie, they are ſenſeleſs for a certain ſpace after their whelping: At two moneths old they begin to run and walk. [They ſay alſo that the fortitude, wrath, and boldneſs of Lions, is conſpicuous by their heat, the young one containeth much humidity contrived unto him by the temperament of his kinde, which afterwards by the drineſs and calidity of his complection groweth viſcous and ſlimie like bird-lime, and through the help of the animal ſpirits prevaileth eſpecially about his brain, whereby the nerves are ſo ſtopped, and the ſpirits excluded, that all his power is not able to move him, untill his parents partly by breathing into his face, and partly by bellowing, drive away from his brain that viſcous humor; theſe are the words of *Phyſiologus*, whereby he goeth about to eſtabliſh his opinion; but herein I leave every man to his own judgment, in the mean ſeaſon admiring the wonderful wiſdom of God, which hath ſo ordered the ſeveral natures of his creatures, that whereas the little Partridge can run ſo ſoon as it is out of the ſhell; and the duckling the firſt day ſwim in the water with his dam, yet the harmful Lions, Bears, Tygres, and their whelps are not able to ſee, ſtand or go, for many moneths; whereby they are expoſed to deſtruction when they are young, which live upon deſtruction when they are old: ſo that in infancie, God clotheth the weaker with more honor.

Philoſtratus.
Phyſiologus.

There is no creature that loveth her young ones better then the Lioneſs, for both ſhepherds, and hunters, frequenting the mountains, do oftentimes ſee how irefully ſhe fighteth in their defence, receiving the wounds of many Darts, and the ſtroaks of many ſtones, the one opening her bleeding body, and the other preſſing the bloud out of the wounds, ſtanding invincible, never yielding till death, yea death it ſelf were nothing unto her, ſo that her young ones might never be taken out of her Den; for which cauſe *Homer* compareth *Ajax* to a Lioneſs, fighting in the defence of the carcaſs of *Patroclus*. It is alſo reported, that the male will lead abroad the young ones, but it is not likely, that the Lion which refuſeth to accompany his female in hunting, will ſo much abaſe his noble ſpirit, as to undergoe the Lioneſſes duty in leading abroad the young ones. In *Pangius* a mountain of *Thracia*, there was a Lioneſs which had whelps in her den, the which den was obſerved by a Bear, the which Bear on a day finding the den unfortified, both by the abſence of the Lion and the Lioneſs, entred into the ſame and ſlew the Lions whelps, afterward went away, and fearing a revenge, for her better ſecurity againſt the Lions rage, climed up into a tree, and there ſat as in a ſure caſtle of defence: at length the Lion and the Lioneſs returned both home, and finding their little ones dead in their own bloud, according to natural affection fell both exceeding ſorrowful, to ſee them ſo ſlaughtered whom they both loved; but ſmelling out by the foot the murderer, followed with rage up and down untill they came to the tree whereinto the Bear was aſcended, and ſeeing her, looked both of them gaſtly upon her, oftentimes aſſaying to get into

Ælianus.
Eudemus.
Gillius.

the tree, but all in vain, for nature which adorned them with ſingular ſtrength and nimbleneſs, yet had not endued them with power of climbing, ſo that the tree hindring them from revenge, gave unto them further occaſion of mourning, and unto the Bear to rejoyce at her own cruelty, and deride their ſorrow.

Then the male forſook the female, leaving her to watch the tree, and he like a mournful father for the loſſe of his children, wandred up and down the mountain making great moan and ſorrow, till at the laſt he ſaw a Carpenter hewing wood, who ſeing the Lion coming towards him let fall his Axe for fear, but the Lion came very lovingly towards him, fawning gently upon his breaſt with his forefeet, and licking his face with his tongue; which gentleneſs of the Lion the man perceiving, he was much aſtoniſhed, and being more and more embraced, and fawned on by the Lion, he followed him, leaving his Axe behind him which he had let fall, which the Lion perceiving went back, and made ſignes with his foot to the Carpenter that he ſhould take it up: but the Lion perceiving that the man did not underſtand his ſignes, he brought it himſelf in his mouth and delivered it unto him, and ſo led him into his cave, where the young whelps lay all embrewed in their own bloud, and then led him where the Lioneſſe did watch the Bear, ſhe therefore ſeeing them both coming, as one that knew her husbands purpoſe, did ſignifie unto the man that he ſhould conſider of the miſerable ſlaughter of her young whelpes, and ſhewing him by ſignes, that he ſhould look up into the tree where the Bear was, which when the man ſaw, he conjectured that the Bear had done ſome grievous injury unto them; he therefore took his Ax and hewed down the tree by the roots, which being ſo cut, the Bear tumbled down headlong, which the two furious Beaſts ſeeing, they toar her all to pieces: And afterwards the Lion conducted the man unto the place and work where he firſt met him, and there left him, without doing the leaſt violence or harm unto him.

Ælianus.

The recompence of young Lions to the old.
Tzetzes.

Neither do the old Lions love their young ones in vain and without thanks or recompence, for in their old age they requite it again, then do the young ones both defend them from the annoyances of enemies, and alſo maintain and feed them by their own labor; for they take them forth to hunting, and when as their decrepit and withered eſtate is not able to follow the game, the younger purſueth and taketh it for him: having obtained it, roareth mightily like the voice of ſome warning piece, to ſignifie unto his elder that he ſhould come on to dinner, and if he delay, he goeth to ſeek him where he left him, or elſe carryeth the prey unto him: at the ſight whereof, in gratulation of natural kindneſs, and alſo for joy of good ſucceſs, the old one firſt licketh and kiſſeth the younger, and afterward enjoy the booty in common betwixt them.

Ariſtotle.
Albertus.
The love of Lions to their benefactors.

Admirable is the diſpoſition of Lions, both in their courage, ſociety and love, for they love their nouriſhers and other men with whom they are converſant: they are neither fraudulent nor ſuſpicious, they never look awry or ſquint, and by their good wils they would never be looked upon.

The nature of their revenge.
Pliny.
Solinus.

Their clemency in that fierce and angry nature is alſo worthy commendation, and to be wondered at in ſuch Beaſts, for if one proſtrate himſelf unto them as it were in petition for his life, they often ſpare, except in extremity of famine; and likewiſe they ſeldom deſtroy women or children: and if they ſee women, children, and men together, they take the men which are ſtrongeſt, and refuſe the other as weaklings and unworthy their honor; and if they fortune to be harmed by a Dart or ſtone by any man, according to the quality of the hurt, they frame their revenge; for if it wound not, they only terrifie the hunter, but if it pinch them further, and draw bloud, they increaſe their puniſhment.

There is an excellent ſtory of a Souldier in *Arabia*, who among other his colleagues, rode abroad on geldings to ſee ſome wilde Lions: now geldings are ſo fearful by nature, that where they conceive any fear, no wit or force of man is able by ſpur and rod to make him to come near the thing it feareth, but thoſe which are not gelded are more bold and couragious, and are not at all afraid of Lions, but will fight and combate with them. As they road they ſaw three Lions together, one of the Souldiers ſeeing one of them ſtray and run away from his fellowes, caſt a Dart at him, which fell on the ground neer the Lions head, whereat the Beaſt ſtood ſtill a little and pauſed, and afterward went forward to his fellowes. At laſt the Souldier road betwixt him and his fellowes which were gone before, and run at his head with a ſpear, but miſſed it, and fell from his Horſe to the earth, then the Lion came unto him and took his head in his mouth, which was armed with a Helmet, and preſſing it a little did wound him, taking of him no more revenge, then might requite the wrong received, but not the wrong intended; for generally they hurt no more then they are harmed.

There is an obſcure Author that attributeth ſuch mercy and clemency to a Beaſt which he calleth *Meloſus*, for he perſecuteth with violence and open mouth ſtout men, and all whom he is able to reſiſt, but yet is afraid of the crying of children. It is probable that he miſtaketh it for the Lion, for beſides him, I have not read of any Beaſt that ſpareth young children. *Solinus* affirmeth that many Captives having been ſet at liberty, have met with Lions as they returned home, weak, ragged, ſick, and diſarmed, ſafely without receiving any harm or violence.

And in *Lybia* the people believe that they underſtand the petitions and entreatings of them that ſpeak to them for their lives; for there was a certain Captive woman coming home again into *Getulia* her native Countrey through many woods, was ſet upon by many Lions, againſt whom ſhe uſed no other weapon but only threatnings and fair words, falling down on her knees unto them beſeeching them to ſpare her life, telling them that ſhe was a ſtranger, a captive, a wanderer, a weak, a lean and loſt woman, and therefore not worthy to be devoured by ſuch couragious and generous Beaſts as they: at which words they ſpared her, which thing ſhe confeſſed after her ſafe return: the name of this woman was called *Jubia*. Although about this matter there be ſundry opinions of men, ſome making queſtion whether it be true, that the Lion will ſpare a proſtrate ſuppliant, making confeſſion unto him that he is overcome; yet the *Romans* did ſo generally believe it, that they cauſed to be inſcribed ſo much upon the gates of the great *Roman* Palace in theſe two Verſes;

Pliny.
Solinus.

Iratus recolas, quam nobilis ira leonis;
In ſibi proſtratos, ſe negat eſſe feram.

Textor.

It is reported alſo, that if a Man and another Beaſt be offered at one time to a Lion to take his choiſe whether of both he will devoure, he ſpareth the Man and killeth the other Beaſt. Theſe Lions are not only thus naturally affected, but are enforced thereunto by chance and accidental harmes; as may appear by theſe examples following; *Mentor* the *Syracuſian* as he travelled in *Syria* met with a Lion, that at his firſt ſight fell proſtrate unto him, rolling himſelf upon the earth like ſome diſtreſſed creature, whereat the man was much amazed, and not underſtanding the meaning of this Beaſt, he indevoured to run away; the beaſt ſtill overtook him, and met him in the face, licking his footſteps like a flatterer, ſhewed him his heel, wherein he did perceive a certain ſwelling, whereat he took a good heart, going unto the Lion, took him by the leg, and ſeeing a ſplint ſticking therein, he pulled it forth, ſo delivering the Beaſt from pain; for the memory of this fact, the picture of the man and the Lion were both pictured together in *Syracuſis*, untill *Plinies* time as he reporteth. The like ſtory is reported of *Elpis* the *Samian*, who coming into *Africk* by ſhip, and there going a ſhore, had not walked very far on the Land, but he met with a gaping Lion, at which being greatly amazed, he climed up into a tree, foraſmuch as there was no hope of any other flight, and prayed unto *Bacchus* (who in that Countrey is eſteemed as chief of the Gods) to defend him, as he thought, from the jawes of death; but the Lion ſeeing him to climb into the tree ſtood ſtill, layed himſelf down at the root thereof, deſiring him in a manner, by his heavie roaring, to take pity upon him, gaping with his mouth and ſhewing him a bone ſticking in his teeth, which through greedineſs he ſwallowed, which did ſo pain him that he could eat nothing; at the laſt the man perceiving his minde (moved by a miracle) laid aſide all fear, and came down to the dumb-ſpeaking diſtreſſed Lion, and eaſed him of that miſery: which being performed, he not only ſhewed himſelf thankful for the preſent time, but like the beſt natured honeſt man, never forſook ſhore, but once a day came to ſhew himſelf to the man his helper, during the time that they abode in thoſe quarters; and therefore *Elpis* did afterward dedicate a Temple unto *Bacchus* in remembrance thereof. And this ſeemeth to me moſt wonderful, that Lions ſhould know the vertue of mens curing hands above other creatures, and alſo come unto them againſt nature and kinde, but ſo much is the force of evill and pain, that it altereth all courſes of ſavage minds and creatures.

Albertus.
Pliny.

When *Androcles* a ſervant run away from a Senator of *Rome*, becauſe he had committed ſome offence (but what his offence was I know not) and came into *Africa*, leaving the Cities and places inhabited to come into a deſert region: Afterwards when *Androcles* had obtained a Maſter being Conſull of that Province of *Africa*, he was compelled by dayly ſtripes to run away, that his ſides might be free from the blows of his Maſter, and went into the ſolitary places of the fields, and the ſandes of the wilderneſs: and if he ſhould happen to ſtand in need of meat, he did purpoſe to end his life by ſome means or other; and there he was ſo ſchortched with the heat of the Sun, that at laſt finding out a cave, he did cover himſelf from the heat of it therein; and this cave was a Lions den. But after that the Lion had returned from hunting, (being very much pained by reaſon of a thorn which was faſtened in the bottom of his foot) he uttered forth ſuch great lamentation & pitiful roarings, by reaſon of his wound, as that it ſhould ſeem, he did want ſome body to make his moan unto for remedy; at laſt coming to his cave, and finding a young man hid therein, he gently looked upon him, and began as it were to flatter him and offered him his foot, and did as well as he could pray him to pull out the piece of ſplint which was there faſtened. But the man at the firſt was very ſore afraid of him, and made no other reckoning but of death: but after that he ſaw ſuch a huge ſavage beaſt ſo meek and gentle, began to think with himſelf, that ſurely there was ſome ſore on the bottom of the Beaſt, becauſe he lifted up his foot ſo unto him and then taking courage unto him, lifted up the Lions foot, and found in the bottom of it a great piece of ſplint, which he plucked forth, and ſo by that means eaſed the Lion of his pain, and preſſed forth the matter which was in the wound, and did very curiouſly without any great fear throughly dry it, and wipe away the bloud: the lyon being eaſed of his pain, laid himſelf down to reſt, putting his foot into the hands of *Androcles*.

Ælianus.
Gellius.
A notable ſtory of a Lion.
Gellius.

With the which cure the Lion being very well pleaſed, becauſe he handled him ſo curteouſly and friendly, not only gave him for a recompence his life, but alſo went dayly abroad to forrage and brought home the fatteſt of his prey. *Androcles* whom all this while (even for the ſpace of three years) he kept familiarly, without any note of cruelty or evill nature in his den, and there the Man and the Beaſt lived mutually at one commons, the man roaſting his meat in the hot Sun, and the Lion eating his part raw, according to kind. When he had thus lived by the ſpace of three years, and grew weary of ſuch habitation, life, and ſociety, he bethought himſelf of ſome means to depart; and therefore when the Lion was gone abroad to hunting, the man took his journey away from that hoſpitality, and after he had travelled three days (wandering up and down) he was apprehended by the legionary Souldiers; to whom he told his long life and habitation with the Lion, and how he ran away from his Maſter a Senator of *Rome*; which when they underſtood, they alſo ſent him home again to *Rome* to the Senator.

And being received by his maſter, he was guilty of ſo great and foul faults, that he was condemned to death, and the manner of his death was, to be torn in pieces of Wild beaſts. Now there were at *Rome* in thoſe days many great, fearful, cruell, and ravening beaſts, and among them many Lions: it fortuned alſo that ſhortly after the taking of the man, the aforeſaid *Lybian* Lion with whom he lived long, ſeeking abroad for his companion and man-friend, was taken and brought to *Rome*, and there put among the reſidue, who was the moſt fierce, grim, fearful, and ſavage, above all other in the company, and the eyes of men were more faſtened upon him then all other beſide. When *Androcles* was brought forth to his execution, and caſt in among theſe ſavage beaſts, this Lion at the firſt ſight looking ſtedfaſtly upon him, ſtood ſtill a little, and then came toward him ſoftly, and gently, ſmelling to him like a Dog, and wagging his tail: the poor examinate and forlorn man, not looking for any thing but preſent death, trembled and was ſcarce able to ſtand upright in the preſence of ſuch a beaſt; not once thinking upon the Lion that had nouriſhed him ſo long, but the Beaſt *Accepti beneficii memoro* mindful of former friendſhip, licked gently his hands and legs, and ſo went round about him touching his body, and ſo the man began to know him, and both of them to congratulate each other in that their impriſoned occurrence, and to ſignifie to all the beholders their former acquaintance and converſation, the man by ſtroking and kiſſing the Lion, and the Lion by falling down proſtrate at the mans feet.

Gillius.

In the mean time a Pardall came with open mouth to devour the man, but the Lion roſe up againſt her, and defended his old friend, and ſhe being inſtant, the Lion toar her in pieces, to the great admiration of the beholders, as it could not otherwiſe chuſe. Then *Caſar* which had cauſed thoſe ſpectacles, ſent for the man, and asked him the cauſe of that ſo rare and prodigious an event, who incontinently told him the ſtory before expreſſed. The rumor whereof was quickly ſpred abroad among the people, and tables of writing were made of the whole matter, and finally all men agreed that it was fit that both the man and the Lion ſhould be pardoned and reſtored to liberty: and afterward (ſaith *Appion*) all the people and beholders of that comedy were ſuters to the Senat for the accompliſhment thereof, and ſo the man was pardoned, and the Lion was given unto him for a reward or ſuffrage, who led him up and down the ſtreets in a leam or ſlip; *Androcles* receiving money, and the Lion adorned with flowers and garlands, and all men that ſaw or met them ſaid, *Hic eſt Leo hoſpes hominis, hic eſt homo medicus leonis: Here goeth the Lion which was this Mans Hoſt, and here is the man which was this Lions Phyſitian.*

Appion.

Seneca alſo in his book *De beneficiis*, out of *Gellius* writeth ſo much of another Lion: and indeed there is no man or other Beaſt more fixed and conſtant in their love and friendſhip, or more ready to revenge the breach of amity and kindeneſs, then is a Lion; as appeareth by this ſtory of *Eudemus*, who writeth of a certain young man, that he nouriſhed together many years a Dog, a Bear and a Lion, who lived in perfect peace and concord without breach, ſnarling, or appearance of anger. On a day as the Bear and Dog played together and biting one another gently, it happened that the Dog faſtened his teeth (in ſport) deeper then the Bear cold digeſt, and therefore preſently he fell upon him, and with his claws toar out the ſoft part of his belly, whereof he preſently dyed: the Lion ſitting by, and ſeeing this cruelty, and breach of love, amity, and concord among them that had ſo long lived together, fell to be inflamed to revenge that perfidie, and like a true king of Beaſts, meaſured the ſame meaſure to the Bear as he had done to the Dog, and ſerved him with the ſame ſauce, tearing him inſtantly in pieces.

A ſtory of the juſtice of Lions.

Ælianus.

There is alſo in the life of S. *Jerome*, a ſtory of a Lion that was cured by him, as you have read before the Lion was by *Elpis*, and that the Beaſt in gratitude of that good turn, did ever afterward follow the Aſſe which brought him home his carriage and proviſion through the woods; till at laſt the Lion being aſleep, the Aſſe was ſtolen away, for ſorrow whereof, the Lion put himſelf in the Aſſes ſtead, to bear burthens as he did; within ſhort time after he found out the Aſſe in the theeves ſtable, and brought him home again; but I am of *Eraſmus* minde concerning this ſtory, that the Author thereof took upon him to write wonders and not truth.

Textor.

Diodorus.

The Kings of *Egypt* and *Syria* did keep tame Lions, to accompany them into their wars, which were led about their own bodies for their guard and cuſtody, againſt all peril and invaſion.

The clemency of Lions in ſparing men.

It is alſo very pertinent to this place, to expreſs the clemency of theſe Beaſts towards the Martyrs and ſervants of Jeſus Chriſt, both men and women, that ſo we may obſerve the performance and accompliſhment of that Propheſie, Pſal. 91. *They ſhould walke upon the Aſpe, and the Cockatrice, and ſoftly tread upon the Lion and the Dragon:* This we are not to attribute to the nature of Lions, but rather to the over-ruling hand of our and their Creator, who in remembrance of his own promiſe, and advancement of his own glory, ſtoppeth the mouth of Lions, and reſtraineth all violence both of living creatures and elements; yet I will not impoſe any neceſſity of believing theſe ſtories upon the Reader, for I my ſelf report them not for truth, but becauſe they are written.

Whe

When S. *Anthony* went about to make a grave for the interring of the carkaſs of *Paul* the firſt *Anacorite*, and wanted a ſhovel or ſpade to turn up the earth, there came two Lions, and with their claws opened the earth ſo wide and deep, that they performed therein the office of a good grave-maker. The Prophet *Daniel* was caſt unto the Lions, to whom (according to the *Babylonian* ſtory) was given for their diet every day, two condemned men, and two ſheep, and yet by power of the Almighty whom he ſerved, the Angel of the Lord came down and ſtopt the Lions mouths, ſo that in extremity of hunger, they never ſo much as made force at him, but ſate quietly at his feet like ſo many little Dogs; by which means he eſcaped all peril and torments of death. *Eleutherius* being caſt to the Lions at the command of *Adrian* the Emperor, and *Priſca* a Noble Virgin, at the command of *Claudius Ceſar*, both of them in their ſeveral times, tamed the untamed Beaſts and eſcaped death.

Textor.

Macarius being in the Wilderneſs or Mountains, it fortuned a Lioneſs had a den neer unto his cell, wherein ſhe had long nouriſhed blinde whelps, to whom the holy man (as it is reported) gave the uſe of their eye and ſight; the Lioneſs requited the ſame with ſuch gratification as lay in her power, for ſhe brought him very many ſheep-ſkins to clothe and cover him. *Primus*, and *Fælicianus*, *Thracus*, *Vitus*, *Modeſtus*, and *Creſcentia*, all Martyrs, being caſt unto Lions received no harm by them at all, but the beaſts lay down at their feet, and became tame, gentle, and meek, not like themſelves, but rather like Doves. When a Bear and a Lion fell upon *Tecla* the Virgin, a Martyr, a Lioneſs came and fought eagerly in her defence againſt them both. When *Martina*, the daughter of a Conſul could not be terrified or drawn from the Chriſtian faith by any impriſonment, chains, or ſtripes, nor allured by any fair words to ſacrifice to *Apollo*, there was a Lion brought forth to her, at the commandment of *Alexander* the Emperor, to deſtroy her; who aſſoon as he ſaw her, he lay down at her feet wagging his tail, and fawning in a loving and fearful manner, as if he had been more in love with her preſence, then deſirous to lift up one of his hairs againſt her. The like may be ſaid of *Daria*, a Virgin, in the days of *Numerian* the Emperor, who was defended by a Lioneſs; but I ſpare to blot much paper with the recital of thoſe things (which if they be true) yet the Authors purpoſe in their allegation is moſt profane, unlawful and wicked, becauſe he thereby goeth about to eſtabliſh miracles in Saints, which are lone agone ceaſed in the Church of God.

Men devoured by Lions.

Some Martyrs alſo have been devoured by Lions, as *Ignatius* Biſhop of *Antioch*, *Satyrus* and *Perpetua*, he under *Trajan* the Emperor, and they under *Valerian* and *Galienus*. In holy Scripture there is mention made of many men killed by Lions. Firſt of all it is memorable of a Prophet, 1 King. 13. that was ſent by the Almighty unto *Jeroboam*, to cry out againſt the Altar at *Bethel*, and him that erected that Altar, with charge, that he ſhould neither eat nor drink in that place.

Afterward an old Prophet which dwelt in that place hearing thereof, came unto the Prophet, and told him that God had commanded him to go after him, and fetch him back again to his houſe to eat and drink; wherewithal being deceived, he came back with him contrary to the commandment of the Lord given to himſelf: whereupon as they ſat at meat, the Prophet that beguiled him, had a charge from God to propheſie againſt him, and ſo he did: afterward as he went homeward a Lion met him and killed him, and ſtood by the corps, and his Aſs, not eating of them till the old Prophet came and took him away to bury him.

In the twentieth chapter of the ſame Book of Kings, there is another ſtory of a Prophet, which as he went by the way he met with a man, and bade him in the name of the Lord, to wound and ſmite him, but he would not, preferring pity before the ſervice of the Lord: Well (ſaid the Prophet unto him) *ſeeing thou refuſeſt to obey the voyce of the Lord, Behold as ſoon as thou art departed, a Lion ſhall meet thee and deſtroy thee*: and ſo it came to paſs; for being out of the preſence of the Prophet, a Lion met him and tore him in pieces.

The Idolatrous people that were placed at *Jeruſalem* by the King of *Babel*, were deſtroyed by Lions; and unto theſe examples of God his judgements, I will adde other out of humane ſtories. *Paphages* a King of *Ambracia*, meeting a Lioneſs leading her whelps, was ſuddenly ſet upon by her and torn in pieces, upon whom *Ovid* made theſe verſes:

Fœta tibi occurrat patrio popularis in arvo,
Sitq; Paphageæ cauſa leæna necis.

Ælianus.

Hyas the brother of *Hyades*, was alſo ſlain by a Lioneſs. The people called *Ambraciotæ* in *Africk*, do moſt religiouſly worſhip a Lioneſs; becauſe a notable Tyrant which did oppreſs them was ſlain by ſuch an one. There is a Mountain neer the River *Indus* (called *Liteus*) of a Shepheard ſo named, which in that Mountain did moſt ſuperſtitiouſly worſhip the Moon, and contemned all other Gods, his ſacrifices were performed in the night ſeaſon; at length (ſaith the Author) the Gods being angry with him, ſent unto him a couple of Lions who tore him in pieces, leaving no monument beſide but the name of the Mountain for the accident of his cruel death. The Inhabitans of that Mountain wear in their ears a certain rich ſtone (called *Clitoris*) which is very black, and bred no where elſe but in that place.

Plutarch.

There is a known ſtory of the two *Babylonian* lovers, *Pyramus* and *Thisbe*, who in the night time had covenanted to meet at a Fountain near the ſepulchre of *Ninus*, and *Thisbe* coming thither firſt, as ſhe ſate by the Fountain, a Lioneſs being thirſty, came thither to drink water, (after the ſlaughter of an Ox:) at ſight whereof, *Thiſbe* ran away and let fall her mantle, which the Lioneſs finding tore it in pieces with her bloudy teeth. Afterward came *Pyramus*, and ſeeing her mantle all bloudy and torn aſunder, ſuſpecting that ſhe that loved him, being before him at the appointed place had been killed by ſome wilde beaſt, very inconſiderately drew forth his ſword, and thruſt the ſame through his own body, and being ſcarce dead, *Thiſbe* came again, and ſeeing her lover lie in that diſtreſs, as one love, one cauſe, one affection had drawn them into one place, and there one fear had wrought one of their deſtructions, ſhe alſo ſacrificed her ſelf upon the point of one and the ſame ſword.

There was alſo in *Scythia* a cruel Tyrant (called *Therodomas*) who was wont to caſt men to Lions to be devoured of them, and for that cauſe did nouriſh privately many Lions: unto this cruelty did *Ovid* allude, ſaying:

Therodomanteos ut qui ſenſere Leones.

And again:

Non tibi Therodomas cruduſq; vocabitur Atreus.

Men that have overcome Lions.

Unto this diſcourſe of the bloud-thirſty cruelty of Lions, you may add the puiſſant glory of them, who both in Sacred and prophane ſtories are ſaid to have deſtroyed Lions. When *Sampſon* went down to *Timnath*, it is ſaid, that a young Lion met him roaring to deſtroy him, but the Spirit of the Lord came upon him, and he tore it in pieces like a Kid; wherein he was a Type of Jeſus Chriſt, who in like ſort being ſet upon by the roaring of the Devil and his members, did with facility (through his divine nature) utterly overthrow the malice of the Devil. Afterward *Sampſon* went down to the *Philiſtine* woman whom he loved, and returning, found that Bees had entred into the Lions carcaſs, and there builded, whereupon he propounded this Riddle; *A voraci exiit cibus, & ex forti egreſſa eſt dulcedo: Out of the devourer came meat, and out of the ſtrong came ſweetneſs.*

Benaiah the ſon of *Jehoiada* one of *Davids* Worthies, did in the Winter time in the ſnow kill a Lion in a ditch: *David* himſelf feeding his fathers flock, ſlew a Lion and a Bear which had robbed him of a Lamb.

It is reported of *Perdiccas* (one of the Captains of *Alexander*) a valiant man, that he went alone into the Den of a Lioneſs, but not finding her therein, took away her whelps, and brought them forth to the admiration of all men; for the Lioneſs both among the *Barbarians* and *Gracians* is accounted the ſtrongeſt and moſt unreſiſtible beaſt. In the Northern parts of the World (ſaith *Pauſanias*) near the monuments of *Alcmæa* and *Hyllus*, the ſons of *Hercules*, there was a Lion which ſlew many people, and at laſt alſo *Euippus* the only ſon of King *Megareus*; whereat the King grew ſo ſorrowful and angry, thirſting after revenge, that he promiſed to the man that could overcome him his daughter, and the ſucceſſion of his Kingdom: There was a noble and valiant young man called *Alcathus*, who undertook the action and killed the Lion, for which thing he obtained both the Wife and the Kingdom according to the promiſe of *Megareus*, and therefore in thankfulneſs of ſo good fortune, he builded there a famous Temple, dedicating it to *Diana Agroteræ*, and *Apollo Agreus*.

We have ſpoken before of *Lyſimachus*, unto whom we may add *Polydamas* the *Scotuſæan*, who in all things he took in hand, propounded unto himſelf the example of *Hercules*, and did kill a Lion of monſtrous ſtature and bigneſs, being unarmed, in the Mountain *Olympus*; as at another time he held a Buls leg ſo faſt in his hand, that while the Beaſt ſtrove to looſe himſelf, he left the hoof of his foot behinde him. When *Hercules* was a boy or ſtripling, he ſlew the *Teumeſſian* Lion in *Teumeſſus* a Mountain of *Beotia*, and pulled off his skin, which ever after he wore in ſtead of a cloke. This Lion is alſo called a *Nemæan* Lion, yet ſome are of opinion that the *Nemæan* Lion, was another called alſo the *Molorchæan*, becauſe having killed the ſon of *Molorchus* he perſwaded *Hercules* which did ſojourn with him, to take revenge in his ſtead.

From whence the *Nemæan* Sacrifices is performed by the *Gracians* in remembrance of *Hercules*, and *Lucan* maketh mention of this *Nemæan* Lion in this verſe:

Si ſævum premeres Nemeæum ſæva Leonem.

And upon the den of the Lion was a Temple builded and dedicated to *Jupiter Nemæus*. *Varinus* ſpeaking of the *Nemæan* Lion, telleth this ſtory thereupon, whereas ſaith he, the ſaid Lion could not be killed with any ſword, dart, or other ſharp inſtrument, *Hercules* tore him in pieces with his hands without all weapons, and afterward wore his skin in remembrance of that victory: It happened on a day, that as he travelled he met with his friend *Telamon*, who wanted children, of whom he was intreated that he would make ſacrifice to *Jupiter* for him in that weed or garment, and alſo intreat for a ſon. *Hercules* yeelded, and taking the golden cenſor in his hand, made the ſacrifice and ſupplication to *Jupiter*, that *Telamon* might have a ſon, and as he ſacrificed, an Eagle flew over them, which in *Greek* is called *Aetos*, wherefore when *Hercules* ſaw the ſame, he charged *Telamon* that his ſon ſhould be called *Aetos*; that is, an Eagle: and ſo he was, but afterward he was called *Aiax*, and

ore

wore continually that Lions ſkin which was given him by *Hercules*: and therefore he could not be wounded: But I take this to be but a fable: rather this was the truth; *Aiax* was a valiant ſouldier, and ſo warily carried himſelf in many battails, that he never received wound, but at laſt he ſlew himſelf with his own ſword, thruſting it through his neck; and for this cauſe it was fabled, that he never could be wounded, by a vertue (as was imagined) conferred on him from *Hercules*. *Ovid* hath a witty fiction of one *Phyllius*, who fell ſo deeply in love with a little boy, that at his pleaſure he took many wilde Beaſts, Birds, and Lions, and tamed them to the delight of his *Amaſius*: at length the inſatiable Boy required him to do the like by a Bull, which he had overcome, but *Phyllius* denying that requeſt, they Boy preſently caſt himſelf down from a Rock, and was afterward turned into a Swan; by which the Poet declareth, the unmerciful regard which wretchleſs and childiſh mindes bear towards the greateſt labours and deſerts of the beſt men; and that in ſuch ſociety a man is no longer beloved, then he giveth; alſo the denial of one ſmall requeſt cannot be endured, although a thouſand good turns have gone before it; wherefore ſuch mindes may well be transfuſed into Swans, which forſake their owners and breeders, going and ſwimming far from their firſt and proper habitation.

Men transfigured into Lions according to Poets and fictions.

Having but mentioned ſuch a ſtory, it is not exorbitant to add in one word other fictions of Metamorphoſing, and transfiguring men into Lions, which we promiſed in the former diſcourſe of *Amaſis* and *Apollonius*, when I diſcourſed of the food of Lions.

And firſt of all, it is not unproper to remember the caution of *Timaus* the *Pythagoræan*, who affirmeth, that the mutation of men into beaſts, is but a fiction brought in for the terrour of wicked men, who ſeeing they cannot be reſtrained from vice, for the love of well doing, they may be deterred for the fear of puniſhment, which is meant by ſuch beaſtly transfigurations.

Olympiodorus.

And this thing is thought to be moſt conſonant to the opinion of *Plato*, for in conſideration of the habit, and not of the kinde; a good houſe-keeper, and charitable nouriſhing man, is ſaid to be transmuted into a tree: He which liveth by catching and ſnatching, to ſerve his own concupiſcence, into a Kite; he which for love of military diſcipline and Martial affairs, into a Lion; he that was a Tyrant and a devourer of men, into a Dragon: and *Empedocles* alſo ſaid, that if a man depart this natural life, and be transmuted into a brute beaſt, it is moſt happieſt for him if his ſoul go into a Lion: but if he looſe his kinde and ſenſes, and be transmuted into a plant, then is it beſt to be metamorphoſed into a Laurel or Bay-tree. And for theſe cauſes we read of *Hippo* changed into a Lion, and *Atlas* into a Lioneſs, and the like I might ſay of *Proteus*, of the *Curetes*, and others: and generally all the Eaſtern wiſe men believed the tranſmigration of ſpirits from one into another, and inſinuated ſo much to their ſymmiſts and diſciples, making little or no difference betwixt the natures of men and brute beaſts. Therefore they taught that all their Prieſts after death were turned into Lions, their religious Veſtals or women into Hyæna's, their Servants or Miniſters in the Temples, about the ſervice of their vain Gods into Crows and Ravens; the Fathers of families, into Eagles and Hawks; but thoſe which ſerved the Leontick Altars, meaning *Nemeæa ſacra*, inſtituted for the honour of *Hercnles*, were transformed diverſly: but of all theſe we have already expreſſed our opinion; namely, to believe and think ſo baſely of mankinde, created after Gods Image, as once to conceive or entertain one thought of ſuch paſſing of one from another, were moſt lewd and Diabolical; but to conceive them as allegories, by which the mindes of the wiſe may be inſtructed in divine things, and God his judgements; as it is Poetical, ſo is it not againſt any point of learning, or good Religion.

Porphyrius.

The underſtanding of Lions.

As that which hath been already expreſſed moſt notably deſcribeth the nature of the Lion, which ſo that ſucceedeth hath the ſame uſe for the manifeſtation of the dignity and honour of Beaſt.

Firſt of all therefore, to begin with his underſtanding, and to ſhew how neer he cometh to the nature of man. It is reported by *Ælianus*, that in *Lybia* they retain great friendſhip with men, enjoying many things in common with them, and drinking at the ſame Well or Fountain. And if at any time he being deceived in his hunting, and cannot get to ſatisfie hunger, then goeth he to the houſes of men, and there if he finde the man at home, he will enter in and deſtroy, except by wit, policy, and ſtrength, he be reſiſted; but if he finde no man, but only women, they by railing on him and rebukes, drive him away, which thing argueth his underſtanding of the *Lybian* tongue; The ſum and manner of thoſe ſpeeches and words which ſhe uſeth to affright and turn them away from entering houſes, are theſe:

Art not thou aſhamed being a Lion, the King of Beaſts, to come to my poor cottage to beg meat at the hands of a woman? and like a ſick man, diſtreſſed with the weakneſs of body, to fall into the hands of a woman, that by her mercy thou mayſt attain thoſe things which are requiſite for thy own maintenance and ſuſtentation? yea rather thou ſhouldſt keep in the Mountains, and live in them, by hunting the Hart and other Beaſts, provided in nature for the Lions food, and not after the faſhion of little baſe Dogs, come and live in houſes to take meat at the hands of men and women.

By ſuch like words ſhe enchanteth the minde of the Lion, ſo that like a reaſonable perſon, overcome with ſtrong arguments, notwithſtanding his own want, hunger, and extremity, he caſteth his eyes to the ground aſhamed and afflicted, and departeth away without any enterpriſe: Neither ought any judicious or wiſe man think this thing to be incredible; for we ſee that Horſes and Dogs which live among men, and hear their continual voyces, do diſcern alſo their tearms of threatning, chiding, and rating, and ſo ſtand in aw of them; and therefore the Lions of *Lybia*, whereof many are brought up like Dogs in houſes, with whom the little children play, may well come to the knowledge and underſtanding of the *Mauriſian* tongue.

Leo Afer.

It is alſo ſaid they have underſtanding of the parts of men and women, and diſcern ſexes, and are indued with a natural modeſty, declining the ſight of womens privy parts. And unto this may be added the notable ſtory of a Lion in *England*, (declared by *Crantzius*) which by evident token was able to diſtinguiſh betwixt the King Nobles, and vulgar ſort of people.

The anger of Lions, and the ſignes thereof. *Adamantius.* *Albertus.*

As the ears of Horſes are a note of their generoſity, ſo is the tail of Lions, when it ſtandeth immoveable, it ſheweth that he is pleaſant, gentle, meek, unmoved, and apt to endure any thing, which falleth out very ſeldom, for in the ſight of men he is ſeldom found without rage. In his anger, he firſt of all beateth the earth with his tail, afterwards his own ſides, and laſtly leapeth upon his prey or adverſary. Some creatures uſe to wag their tails, when they ſee ſuddenly thoſe which are of their acquaintance, as Dogs; but Lions and Buls, do it for anger and wrath. The reaſon both of one and other, is thus rendred by *Aphrodiſeus*. The back-bone of ſuch Beaſts is hollow, and containeth in it marrow, which reacheth to the tail, and therefore there is in the tail a kinde of animal motion, and power. For which cauſe when the Beaſt ſeeth one of his acquaintance, he waggeth his tail by way of ſalutation for the ſame reaſon that men ſhake hands, for that part is the readieſt and nimbleſt member of his body; but Buls and Lions are conſtrained to the wagging of their tails for the ſame reaſon that angry men are light fingered, and apt to ſtrike: for when they cannot have ſufficient power to revenge, they either ſpeak if they be Men, or elſe bark if they be Dogs, or ſmite their ſides with their tail if they be Lions; by that means uttering the fury of their rage to the eaſe of nature, which they cannot to the full deſire of revenge.

But we have ſhewed before that the Lion ſtriketh his ſides with his tail, for the ſtirring up of himſelf againſt dangerous perils, for which cauſe *Lucan* compareth *Cæſar*, in his warlike expedition at *Pharſalia*, againſt his own Countrey, before his paſſage over *Rubicon*, (whileſt he exhorted his ſouldiers) to a Lion beating himſelf with his own tail in theſe verſes;

Inde mora ſolvit belli, tumidumq; per amnem,
Signa tulit propere: ſicut ſquallentibus arvis
Æſtiferæ Lybies, viſo Leo cominus hoſte,
Subſedit dubius, totam dum colligit iram;
Mox ubi ſe ſævæ ſtimulavit verbere caudæ,
Erexitq; jubas, vaſto & grave murmur hiatu,
Infremuit: tum torta levis ſi lancea Mauri
Hæreat, aut latum ſubeant venabula pectus,
Per ferrum tanti ſecurus vulneris exit.

There are many Epigrams, both *Greek* and *Latine*, concerning the rage, force, friendſhip, and ſociety of Lions with other beaſts, whereof theſe are moſt memorable: the firſt of a Hare, which through ſport crept through the mouth of a tame Lion, whereof *Martial* writeth in this ſort, teaching her to flie to the Lions teeth againſt the rage of Dogs in theſe verſes:

Rictibus his Tauros non eripuere magiſtri,
Per quos præda fugax itq; reditq; lepus.
Quodq; magis mirum, velocior exit ab hoſte,
Nec nihil à tanta nobilitate refert.
Tutior in ſola non eſt cum currit arena:
Nec caveæ tanta conditur ille fide,
Si vitare canum morſus, lepus improbe, quæris,
Ad quæ confugias, ora Leonis habes.

There is another of the ſame Poets, about the ſociety of a Ram and a Lion, wherein he wondereth, that ſo different natures ſhould live together, both becauſe the Lion forgetteth his prey in the Woods, and alſo the Ram, the eating of green graſs, and through hunger, both of them conſtrained to taſte of the ſame diſhes: and yet this is no other, then that which was foretold in holy Scripture, the Lion and the Lamb ſhould play together: the Epigram is this;

Maſſyli Leo fama jugi, pecoriſq; maritus
Lanigeri, mirum qua poſuere fide,
Ipſe licet videas, cavea ſtabulantur in una,
Et pariter ſocias carpit uterq; dapes,
Nec fœtu memorum gaudent, nec mitibus herbis,
Concordem ſatiat ſed rudis agna famem.

For we have ſhewed before, that a Lion in his hunger will endure nothing, but fiercely falleth upon every prey, according to theſe verſes of *Manilius*:

Quis dubitet, vaſti quæ ſit natura Leonis?
Quaſq; ſuo dictet ſigno naſcentibus artes?
Ille novas ſemper pugnas, nova bella ferarum
Apparat, & pecorum vivit ſpolio, atq; rapinis.
Hoc habet, hoc ſtudium poſtes ornare ſuperbis
Pellibus, & captas domibus configere prædas,
Atq; parare metum ſylvis, & vivere rapto.

The hunting and taking of Lions.

Concerning the hunting and taking of Lions, the *Indian* Dogs, and ſome other ſtrong Hunters do ſet upon Buls, Bores, and Lions, as we have ſaid before in the Hiſtory of Dogs: but Dogs, which are begotten of Tygers, amongſt the *Indians*, and thoſe of *Hyrcania*, eſpecially do this thing, as it is noted by *Mantuan*, concerning the fortitude and courage of a Dog, ſaying:

Et truculentus Helor certare Leonibus audens.

In the Province of *Gingui*, which is ſubject to great *Cham* King of *Tartaria*, there are very many Lions which are very great and cruel: and in that Region the Dogs are accounted ſo bold and ſtrong, as they will not fear to invade or ſet upon thoſe Lions; And it oftentimes cometh to paſs, that two Dogs and a hunting Archer ſitting on Horſe-back do kill and deſtroy a Lion: for when the Dogs perceive the Lion to be near them, they ſet upon him with great barking, but eſpecially when they know themſelves backed with the help of a man, they do not ceaſe to bite the Lion in his hinder parts and tail: and although the Lion doth oftentimes threaten them with his frowning and terrible countenance, turning himſelf this way and that way, that he might tear them in pieces, notwithſtanding the Dogs looking warily unto themſelves, are not eaſily hurt by him, eſpecially when the hunting Horſe-man following them, doth ſeek the beſt means to faſten his Dart in the Lion, when he is bitten of the Dogs, for they are wiſe enough to conſider their own help. But the Lion then flyeth away, fearing leſt the barking and howling of the Dogs, may bring more company both of Men and Dogs unto him. And if he can he betaketh himſelf rightly unto ſome tree, that he may enjoy the ſame for a place of defence for his back, then turning himſelf with a ſcornful grinning, he fighteth with all his force againſt the Dogs. But the Hunter coming nearer upon his Horſe, ceaſeth not to throw Darts at the Lion until he kill him: neither doth the Lion feel the force of the Darts until he be ſlain, the Dogs do unto him ſo great hurt and trouble.

Paulus. Venetus.

If a Lion be ſeen in the time of hunting, being aſhamed to turn his back, he doth a little turn away himſelf if oppreſſed with a multitude: but being removed from the ſight of the Hunters, he doth haſtily prepare for flight, thinking that his ſhame is cleared by concealing himſelf; and therefore knoweth that the Woods cannot give teſtimony of his fear.

He doth want in his flight the leaping which he uſeth in purſuing other Beaſts He doth craftily diſſemble and aboliſh his foot-ſteps to deceive the Hunters: *Pollux* affirmeth, that if a Hunter do fight againſt any wilde Beaſts, as a Bore, he muſt not ſtraddle with his legs wide abroad, but keep them together within the compaſs of a foot, that he may keep his ground ſtedfaſt and ſure, even as the manner is in Wreſtling: for there are ſome wilde Beaſts, as Panthars and Lions, when they are hunted, and are hindred in their courſe by their Hunters, if they be any thing near them, do preſently leap upon them. But the ſtroke which is given ought to be directed or levelled right againſt the breaſt, and the heart, for that being once ſtricken is incurable. *Xenophon* ſaith, in his Book concerning hunting, that Lions, Leopards, Bears, Pardals, Lynxes, and all other wilde Beaſts of this ſort which inhabit Deſert places (without *Greece*) are taken about the *Pangæan* Mountain, and the Mountain called *Cyrtus*, about *Macedony*: ſome in *Olympus*, *Myſius*, and *Pindus*: ſome in *Myſia* above *Syria*, and in other Mountains which are fit for the breeding and nouriſhing Beaſts of this kinde. But they are taken partly in the Mountains by poyſon of Wolf-bane; for the ſharpneſs of the Region (becauſe that can admit no other kinde of hunting as by Nets and Dogs) but mingling this with that thing in which every wilde Beaſt delighteth; the Hunters do caſt it unto them near the Waters.

There are ſome alſo which do deſcend down in the night time, who are taken in regard that all the ways by which they ſhould aſcend unto the Mountains are ſtopped with Huntſ-men, and weapons, neither being ſo excluded, are they taken without great peril unto the Huntſ-men.

There are ſome alſo which make pitfals or great ditches in the ground to catch Lions, in the midſt whereof, they leave a profound ſtony pillar, upon which in the night time they tie a Goat; and do hedge the pitfals round about with boughs, leſt that it might be ſeen, leaving no entrance into the ſame. The Lions hearing the voyce of the Goat in the night, do come unto the place and walk round about the hedge, but finding no place where they may enter, they leap over and are taken.

Oppianus doth deſcribe three manner of ways of hunting Lions, which alſo *Belliſarius* doth, but he doth deſcribe them my minde very unskilfully.

The firſt of them is rehearſed out of *Xenophon*; we will notwithſtanding alſo add thereunto *Oppianus*: for he doth in vary both of them. The ſecond is made by fire. The third by whips or ſcourges.

Three ways to take Lions.

The firſt manner of way is therefore as *Gillius* for the moſt part tranſlateth out of *Oppianus*, in this ſort: Where the Hunters of *Lybia* do obſerve the beaten path or way of the Lion going out of his Den unto the Water, they make a broad and round Ditch near unto it, In the midſt whereof they raiſe up a great pillar, upon this they hang a ſucking Lamb; they compaſs the Ditch round about with a wall of ſtones heaped together, leſt that when the wilde Beaſt cometh near he perceive the deceit. The Lamb being faſtned upon the top of the pillar, doth incitate the hunger-ſtarven heart of the Lion by his bleating, therefore coming near, and not being able to ſtay longer about the wall, he doth preſently leap over and is received into the unlooked for Ditch, in which being now included, he vexeth himſelf in all the parts of his body, lifting himſelf up rather at the Lamb, then to go forth, and being again overthrown, he maketh force again. Theſe things *Gillius* affirmeth.

The other manner of hunting by fire, is the device of the people which inhabit about the River *Euphrates*, who hunt Lions after this manner: The Hunters ſome upon ſtrong Horſes, and ſome upon gray Horſes, with glaſen eyes, which are moſt ſwift, and which dare only meet Lions, when other Horſes dare not abide the ſight of Lions: other being on foot do ſet the Nets. Three of them being placed in the ſnares remain to underprop the Nets, with ſtays and ſtakes: one in the middle, all the reſt in both the bendings or turnings of the ſame, ſo that he which is in the middle

The ſecond.

can hear both the other at the farther ends: ſome ſetting round about in warlike manner, holding pitchy fire-brands in their right hands, and bucklers in their left, for with thoſe they make a very great noiſe and clamor, and with ſhewing their fire brands, put the wilde Beaſts in an incredible fear: Therefore when all the Horſe-men being ſpred abroad invade the Beaſts, and the Foot-men likewiſe do follow with a great noiſe: the Lions being terrified with the crying out of the Hunters, not daring to reſiſt, give place: and aſwell for fear of fire, as of the men, they run into the nets and are taken: like as fiſhes in the night time, by fire are compelled and driven into the nets of the fiſhers.

The third.

The third manner of hunting is done with leſſer labour: that is, four ſtrong men armed with ſhields, and fortified all over with thongs of leather, and having helmets upon their heads, that only their eyes, noſes, and lips may appear, with the brandiſhing of their fire-brands, ruſtle in upon the Lion lying in his den: he not bearing this indignation, with a gaping and open wide mouth, the lightning or burning of his eyes being inflamed, breaketh forth into a great roaring, and with ſuch celerity ruſtleth upon them, as if it were ſome ſtorm or tempeſt: they with a firm and conſtant courage abide that brunt: and in the mean while that he coveteth to catch any of them in his teeth or claws, another of them, provoking him behinde doth ſmite him, and with a loud noiſe or clamour doth vex him: then the Lion in haſt leaving the firſt which he had taken in his mouth, turneth back his mouth unto the hinder: each of them in ſeveral parts do vex him; but he breathing forth warlike ſtrength, runneth here and there, this man he leaveth, that he ſnatcheth up on high: at the length being broken with long labour, and wearyed, foaming in his mouth, he lyeth down ſtraight upon the ground, and now being very quiet they binde him, and take him from the earth as if he were a Ram. I do alſo finde that Lions are intricated in ſnares or traps, bound unto ſome poſt or pile, nigh unto ſome narrow place, by which they were wont to paſs.

But *Pliny* ſaith, that in times paſt it was a very hard and difficult manner to catch Lions, and that the chiefeſt catching of them was in Ditches.

Leo Afer.

In the Mountain *Zaronius* in *Africk*, the ſtrongeſt men do continually hunt Lions, the beſt of which being taken, they ſend them unto the King of *Feſſe*: and the King ordereth his hunting in this manner; in a very ſpacious field there are little hutches built of that height as a man may ſtand upright in them: every one of theſe is ſhut with a little gate; and within ſtandeth an armed man, the Lion being raiſed, and forced to that place the dores being open, then the Lion ſeeing the dores open, runneth with great force, which being ſhut again, he is provoked to anger: Afterward they bring a Bull to combate with him, where beginneth a cruel fight, in which, if the Bull ſhall kill the Lion, the honour of that day is finiſhed; but if the Lion overcome him, all the armed men, which in number are almoſt twelve, come forth to fight againſt the Lion; ſome of them having Boar-ſpears of ſix cubits long: but if the armed men ſhall ſeem to overcome the Lion, the King commandeth the number to be diminiſhed, and if on the contrary, the armed men be overcome, the King with his Nobles ſitting in an high place to ſee the hunting kill the Lion with Croſs-bows; but it cometh oftentimes to paſs, that every one of them is ſlain before the Lion.

The reward of thoſe which combate with the Lion, is ten golden Crowns, together with a new garment: neither are any admitted unto this fight, except they are of a moſt pregnant and valorous ſtrength, and born in the Mountain *Zalag*, but thoſe which do firſt of all provoke and give on-ſet to the Lions, are born in the Mountain *Zaronius*.

Pliny.

Ariſtotle.
Albertus.

To conclude this diſcourſe of the hunting of Lions. If it fortune that he be followed with men and Dogs, yet in the plain fields he never mendeth his pace, as ſome writers affirm, oftentimes turning about and looking upon his purſuers, as it were to dare their approchment, and to give defiance unto all their pretences: yet having gotten the thickets, he looketh to his ſafety with his beſt celerity and ſpeed, ſo wiſely tempering his fear before his foes, that it may ſeem a boldneſs, and ſo politickly when he thinketh no eye ſeeth him, no longer diſſembleth with himſelf, but runneth away like a fearful Hart, or Hare, laying down his ears, and ſtriking his tail betwixt his legs, like a Cur-dog, ſeldome times looking behinde him, but moſt irefully upon thoſe that come before him, eſpecially if he receive from them any wound, whereunto *Horace* alluded, ſaying:

Quid ut noverca me intueris,
Aut ut petita ferro bellua?

In his courſe he ſpareth no Beaſt that he meeteth, but falleth upon it like a mad *Dog*, (except Swine) for he is afraid of their briſtles; and if a man do not attempt to wound him, he will ſnatch at him, and overthrow him, but do him little harm; according to theſe verſes of *Ovid*:

Corpora magnanimo ſatis eſt proſtraſſe Leoni:
Pugna ſuum finem, cum jacet hoſtis, habet.

He obſerveth moſt vigilantly the hand that woundeth him, and laboureth to take revenge for the evil turn, and ſo it remaineth in his minde, till opportunity ſend him his adverſaries head: as may appear by this ſtory following.

When *Juba* King of *Moors* (the Father of him which when he was a childe was brought in triumph) travelled through the Wilderneſs with an Army of ſouldiers, to repreſs certain rebels in one part of his Dominion, which had ſhaken off his government, and to ſettle them again in their firſt allegiance. There was a noble young Souldier in his Train, of the race of the Nobility, and not only very ſtrong, but alſo well experienced in hunting, and by the way he with other of his fellows met with a Lion, at whom he preſently caſt a Dart, and gave him a ſore wound, but not mortal; after the wound received, the Lion went away guilty of his hurt, and the young men did not proſecute him, but went forward on their journey: After a whole year, the King returned homeward the ſame way, and his company that he carryed with him, among whom was this young gallant that wounded the Lion: The Lion having recovered his hurt, and having his Den near the way and place of his harm, perceiving a return of the Army, went furiouſly among them, and found out the man whoſe hand had wounded him, and could not by any help of his aſſociates be ſtayed from a revenge, but tore the young ſouldier in pieces and departed away ſafe, for the reſidue ſeeing his rage, ran all away, thinking him to be ſome Devil in the likeneſs of a Lion.

Of the taming of Lions.

After the taking of Lions, it followeth that we ſhould intreat of their taming, and firſt of all, they which are tamed in their infancy while they are whelps, are moſt meek and gentle, full of ſport and play, eſpecially being filled with meat; ſo that without danger, a ſtranger may meet with them: but being hungry, they return again to their own nature, for as it is true (which *Seneca* ſaith) *Leonibus manus magiſter inſerit, oſculatur Tigrim ſuus cuſtos*, that is to ſay; The Maſter of a Lion may put his hand in his mouth, and the Keeper of a Tyger may kiſs him, yet is it alſo to be feared, *Tigres Leoneſq; nunquam feritatem exuunt, aliquando ſubmittunt, & cum minime expectaveris, torvitas maligna redibit.* Lions and Tygers do never leave off their wildeneſs, although ſometimes they yeeld, and ſeem to be ſubmiſs, yet upon a ſudden when a man expecteth not, their malignant wrath breaketh forth, and they are exaſperated.

Wherefore after they grow to be old, it is impoſſible to make them utterly tame; yet we read in divers ſtories of tame Lions, whether made ſo from their littering, or elſe conſtrained by the Art of man, ſuch are theſe which follow; *Hanno* had a certain Lion, which in his expeditions of war carryed his baggage, and for that cauſe the *Carthaginians* condemned him to baniſhment, for ſaid they, *Male credi libertas ei, cui in tantum ceſſit etiam feritas*, It is not ſafe to truſt ſuch a man with the government of the Common-wealth, who by wit, policy, or ſtrength, was able to overcome, and utterly to alter the wilde nature of a Lion: for they thought he would prove a Tyrant, that could bring the Lion to ſuch meekneſs, as to wait on him at Table, to lick his face with his tongue, to ſmooth his hand on his back, and to live in his preſence like a little Dog.

Cælius.

The *Indians* tame Lions and Elephants, and ſet them to plough. *Onomarchus* the Tyrant of *Cattana*, had Lions with whom he did ordinarily converſe. In the Countrey of *Elymis* there was a Temple of *Adonis*, wherein were kept many tame Lions which were ſo far from wildeneſs, and fierceneſs, that they would imbrace and ſalute the people that came in there to offer: Alſo if any one called them to give them meat, they would take it gently, and depart from them with quietneſs. Likewiſe in the Kingdom of *Fes*, in a plain called *Adecſen*, there are certain Forreſts wherein live tame and gentle Lions, which if a man meet, he may drive away with a ſmall ſtick or wand without receiving any harm. And in another region of *Africk*, the Lions are ſo tame, that they come daily into Cities, and go from one ſtreet to another, gathering and eating bones; from whoſe preſence neither women nor children run away. Likewiſe in many parts of *India*, they have Lions ſo tame, that they lead them up and down in leams, and accuſtom them to the hunting of Boars, Bulls, and wilde Aſſes, like Dogs; for their noſes are as well fitted for that purpoſe, as the beſt Hounds; as we have ſhewed before of the King of *Tartary*.

Ælianus.

Leo Afer.
Ælianus.

The beſt means to tame Lions.

And the beſt means of taming them is the rule of *Apollonius*, which he ſaid was the precept of *Phraotes*, which is, that they be neither handled too roughly, nor too mildely, for if they be beaten with ſtripes, they grow over ſtubborn; and if they be kept in continual flatteries, and uſed over kindely, they grow over proud: For they held opinion, that by an equal commixtion, of threatning, and fair ſpeaking, or gentle uſage, by which means they are more eaſily brought to good deſired conditions: and this wiſdom the Ancients did not only uſe in the taming of Lions, but alſo in reſtraining of Tyrants, putting it as a bridle to their mouths, and a hook in their noſtrils, to reſtrain them from fury and madneſs.

Albertus ſaith, that the beſt way to tame Lions, is to bring up with them a little Dog, and oftentimes to beat the ſame Dog in their preſence, by which diſcipline the Lion is made more tractable to the will of his Keeper. It is ſaid of *Heliogabalus*, that he nouriſhed many tame Lions, and Tygers, and other ſuch noiſome beaſts, calling himſelf their great mother; and when he had made any of his friends drunk in the night time, he ſhut them up together (who quickly fell aſleep) through the heavineſs of their heads, who being ſo aſleep, he turned in amongſt them ſome of his foreſaid children, both Lions, Bears, Tygers, and ſuch like: at whoſe preſence in the morning, his drunken friends grew ſo amazed, that oft-times, ſome of them fell dead for fear: and to conclude, there is a ſtory in a certain Epigram, of a Lion wandering abroad in the night time, for the avoiding of froſt, and cold, came into a fold of Goats: at the ſight whereof the Goat-heards were much afraid, calling in queſtion not only the lives of the flock, but alſo their own; becauſe every one of them, thought himſelf bound to fight unto death in defence hereof; whereupon according to the manner of men in extremity, they all made their prayers, deſiring God to be delivered from the Lion, and according to their wiſhes ſo it came to paſs; for after the Lion had lodged in the warm ſold of Goats a whole night, he departed in the morning, without doing any harm to man or beaſt; whereſore I take this Lion to be of the tame kinde, and as in all beaſts there are differences both of natures, and inclinations, as we may ſee in Dogs, ſome of them being more apt after the manners of men, and to be ruled by them then others; ſo alſo I ſee no reaſon, but that in the fierce, and royal nature of Lions, ſome of them ſhould be more inclinable to obedience, ſubjection, and ſubmiſſion; whereunto being once won, they never afterwards utterly ſhake off their vaſſalage and yoke of them which overcome them.

The triumphs, games and combates with Lions.

* From hence it came, that there were ſo many ſpectacles at *Rome*; as firſt of all *Lucius Sylla*, in the office of his ædility, or overſight of the Temple, brought into the *Roman* circle or ring, one hundred great maned Lions looſe, which always before that time, were turned in bound or muffled. And King *Bochus* ſent ſo many valiant Archers, and Dart-caſters, to fight with them and deſtroy them. After him *Pompey* the great, in the ſame place brought in a combate, conſiſting of ſix hundred great Lions, and among them there were three hundred fifty maned Lions: Alſo he inſtituted hunting of Lions at *Rome*, wherein were ſlain five hundred. *Cæſar* when he was Dictator, preſented in ſpectacle four hundred Lions. *Quintus Scævola* cauſed Lions to fight one with another. But *Marcus Antonius* in the civil War, after the battail of *Pharſalia*, did firſt of all cauſe Lions to be yoked, and draw the Chariot of triumphs; where he himſelf ſate, with one *Citheris* a Jeſter: which thing was not done, without ſhew and obſervations of a prodigious and monſtrous action, and eſpecially in thoſe times, wherein it was interpreted, that as the noble ſpirits of thoſe Lions were ſo much abaſed, and vaſſalaged, in ſtead of Horſes to draw a Chariot, they being in nature the King of Beaſts, ſo it was feared that the ancient Nobility of *Rome*, the grave Senators, and gallant Gentlemen, Commanders of the whole Common-wealth, ſhould in time to come, through civil wars, and pride of the people, be deprived of all honour, and brought down to the baſeſt offices of the whole State. *Antoninus Pius* nouriſhed a hundred Lions. *Domitian* the Emperor, called for *Acillius Gabrio* the Conſul, into *Albania*, about the time that the games were celebrated, for the proſperity of youth and young men, which were called *Juvenalia*, to fight with a great Lion, and *Acillius* coming wiſely into the combate, did eaſily kill him. In ancient time when Lions could not be tamed, they did diſcern them by their teeth, and nails, and ſo taking as it were the ſting and poyſon from the Serpent, and the weapons wherein conſiſteth all their ſtrength, they were without all peril, ſent into the publick Aſſemblies, at the time of their general meetings, and great feaſts. *Martial* hath an excellent Epigram, of the great Lion before exhibited in publick ſpectacle by *Domitian*, wondering that the *Maſſylian* and *Auſonian* ſhepheards were ſo afraid of this Lion, and made as great a noiſe, and murmur, about his preſence, as if he had been a heard of Lions, and therefore he commendeth the *Lybian* Countrey for breeding ſuch a beaſt, and withal expreſſeth the joy of the ſhepheards for his death, as are ſhown in theſe verſes following:

Plutarch.
Pliny.

Auditur quantum Maſſyla per avia murmur,
Innumero quoties ſylva Leone furit:
Pallidus attonitos ad plena mapalia paſtor
Cum revocat tauros, & ſine mente pecus:
Tantus in Auſonia fremuit modo terror arena;
Quis non eſſe gregem crederet? unus erat,
Sed cujus tremerent ipſi quoq; jura Leenes,
Cui diadema daret marmore picta Nomas.
O quantum per colla decus, quem ſparſit honorem
Aurea lunatæ cum ſtetit unda jubæ!
Grandia quam decuit lotum venabula pectus,
Quantaq; de magna gaudia morte tulit?
Unde tuis Lybie tam felix gloria ſylvis?
A Cybeles nunquid venerat ille jugis?
An magis Herculo Germanice miſit ab aſtro
Hanc tibi vel frater, vel pater ipſe feram?

Tame Lions become wilde again.

We have ſhewed already that Lions although never ſo well tamed, become wilde again, and that through hunger, which breaketh through ſtone walls, according to the common proverb, and therefore maketh them to deſtroy whatſoever cometh in their way, according to theſe verſes of *Virgil*;

Impaſtus ceu plena Leo per ovilia turbans,
(Suadet enim veſena fames) manditq; trahitq;
Molle pecus, mutumq; metu, fremit ore cruento.

Such a one was the Lion of *Borſius* Duke of *Ferrara*, who being in his cave would devour Bulls, Bears, and Boars, but with a Hare or little Whelp he would play, and do them no harm; at laſt leaving all his tamable nature, he deſtroyed a young wench, who oftentimes came unto him to comb and ſtroke his mane, and alſo to bring him meat and flowers, upon whom *Stroza* made theſe two verſes;

Suſtulit ingratus cui quondam plurima debens
Pectendaſq; jubas, & fera colla dabat.

The like unto this alſo, was the tame Lion that *Martial* ſpeaketh of, who returning to his firſt nature, deſtroyed two young children, and therefore he ſaith juſtly, that his cruelty exceedeth the cruelty of war; the Epigram is this:

Verba

Verbera ſecuri ſolitus Leo ferre magiſtri,
Inſertamq; pati blandus in ora manum,
Dedidicit pacem ſubito, feritate reverſa,
Quanta nec in Lybicis debuit eſſe jugis.
Nam duo de tenera puerilia corpora turba,
Sanguineam roſtris quæ renovabat humum,
Sævus & infœlix furiali dente peremit,
Martia non vidit majus arena nefas.

The length of a Lions life, and their diſeaſes.

Albertus.

Cardan.

Having thus ſpoken of the taming and taking Lions, it alſo now followeth to entreat of the length of their life, and the diſeaſes that are incident unto them, with their ſeveral cures: firſt therefore, it is held that they live very long, as threeſcore, or fourſcore years: for it hath been ſeen, that when a Lion hath been taken alive, and in his taking received ſome wound whereby he became lame, or loſt ſome of his teeth, yet did he live many years; and alſo it is found that ſome have been taken without teeth, which were all fallen out of their head through age, and *Ælianus* ſaith, that a Lion and a Dolphin, do both conſume away through multitude of years. The ſickneſſes wherewithal they are annoid, are not very many, but thoſe which they have are continual: for the moſt part their intrails or inward parts, are never ſound, but ſubject to corruption, as may appear by their ſpittle, and alſo by their biting, and ſcratching of their nails; for a man lightly touched by them at ſome times is as much poyſoned, as the biting of a mad Dog; alſo by reaſon of his extreme hot nature, every each other day he ſuffereth one ſickneſs or other, at which time he lyeth proſtrate upon the earth, roaring not all the day long, but at certain hours, and in his wrath he is conſumed through the heat incloſed in his own body. And in his beſt eſtate he is afflicted with a quartane Ague, even then when he ſeemeth to be in health, and except this diſeaſe did reſtrain his violence and malice by weakning of his body, he would be far more hurtful to mankinde then he is: and this is to be underſtood, in the Summer time he falleth into this diſeaſe ſometime at the ſight of a man, and is cured by the bloud of Dogs, according to *Albertus* and *Phyſiologus*, when he feeleth himſelf ſick, through abundance of meat, he falleth a vomiting, either by the ſtrength of nature, or elſe helpeth himſelf by eating a kinde of graſs, or green corn in the blade, or elſe rapes; and if none of theſe prevail, then he faſteth, and eateth no more till he finde eaſe; or elſe if he can meet with an Ape, he devoureth and eateth his fleſh, and this is the principal remedy and medicine which he receiveth againſt all his diſeaſes, both in youth and age; and when he groweth old, being no more able to hunt Harts, Boars, and ſuch beaſts, he exerciſeth his whole ſtrength in the hunting and taking of Apes, whereupon he liveth totally; and for theſe cauſes, there is a compariſon betwixt the Lion and the Dolphin, in *Ælianus. Leoni, & Delphino multa ſunt communia, uterq; imparat, ille terrenis, hic aquatilibus beſtiis, ſenectute ambo tabeſcunt, & cum ſunt in ægritudine, illi terreſtris ſimia medetur, huic marina quoq; ſimia remedio eſt*; that is, the Lion and the Dolphin do agree in many things, both of them are Kings, this ruleth over the beaſts of the Earth, and that over the beaſts of the Sea; both of them conſume through age, and long life; and as the Lion recovereth by eating an Ape of the Earth, ſo is the Dolphin cured by eating an Ape of the Sea; and thus much for the diſeaſes and cures of Lion.

The uſe of a Lions ſeveral parts.

Unto this natural diſcourſe of Lions belongeth the uſe of their parts, both outward and inward, and alſo the ſeveral pictures and ſtatues erected for their ſingular monuments. Firſt therefore with the skins of Lions were the ancient *Moores* and *Barbarians*, inhabiting betwixt the Mountain *Caucaſus* and the River *Cophena*, and ſo they appeared to *Apollonius* and his companions; as alſo in the skins of Panthers, with both which, they did not only clothe themſelves in the day time, but alſo ſlept upon them in the night; and therefore *Hercules* is pictured wearing a Lions skin, that the world might be admoniſhed, what was the antient attire of their fore-fathers. *Virgil* deſcribeth *Aventinus* covered with a Lions skin in this ſort:

——— *Quem fulva Leonis*
Pellis obit totum præfulgens unguibus aures.

And again:

Ipſe pedes tegmen torquens immane Leonis,
Terribili impexum ſeta, cum dentibus albis,
Indutus capiti, &c. ———

And *Æneas* ſleeping upon a Lions skin, ſaying:

——— *Fulviq; inſternor pelle Leonis.*

And elſewhere,

Præcipuumq; toro, & villoſi pelle Leonis
Accipit Aeneam. ———

Adraſtus was commanded by the Oracle to marry his Daughters to a Boar and a Lion, when they came a wooing unto them. Whereupon *Tydeus* came in a Boars skin, and *Polynices* in a Lions skin, unto whom he gave his Daughters in marriage, taking it to be the meaning of the Oracle, that men clothed in thoſe skins ſhould be the Husbands of his Daughters. From hence came the common proverb; *Induitis me Leonis exuvium*, you put upon me a Lions skin, to ſignifie a man that taketh upon him more then he is able to perform, and ſpend more then their condition will afford, and the beginning of the proverb was taken from *Hercules*, who clothed in a Lions ſkin as we have ſaid before, and bearing in one hand a Club, and in the other a Bow, in which attire he went down to Hell to fetch out *Cerberus*.

Ridiculous imitation.

Cælius.

The fat of Lions.

Raſis.

Albertus.

Marcellus.

Sextus.

Afterwards there was one *Bacchus*, which clothed with the ſame weed, and armed with the ſame weapons in like ſort, in the imitation of *Hercules*, went down to Hell, to hear the fained diſputation betwixt the two Poets, *Euripides*, and *Æſchylus*, at the ſight whereof *Hercules* laughed, telling him, that ſuch apparel did nothing at all become him, becauſe he was wanton, tender, and effeminate. For it is not available to have a rich ceremony, and want the true ſubſtance; a glorious outſide, and a ſhameful inſide; the armour of a Champion, and the heart of a baſe Coward; the outward ſhews of holineſs, and the inward love of profaneſs. Others do think that the proverb was taken from that Aſs called *Aſinus Cumanus*, who being weary of his ſervitude and bondage, ſlipt collar, and ran away into the wilde Woods, where finding by chance a Lions skin, he crept into it, and wore it upon his body, under colour whereof he ruffled up and down the Woods, to the terrour of all the Beaſts, both with his tail and his fearful voice: and the *Cumanes* themſelves, which had never ſeen a Lion, were not a little afraid of this counterfeit beaſt. In this faſhion he domineer'd a good time, until at laſt there came a ſtranger to *Cumæ*, who ſeeing the counterfeit perſonate Aſs-lion by the way, having oftentimes ſeen both Lions and Aſſes, knew it for an Aſs in a Lions skin; for if all other conjectures failed, yet this proved true, namely the length of his ears; wherefore he beat him well, and brought him home to his Maſter, before whom he pulled off the Lions skin, and then his Maſter knew him to be his Aſs. From which *Socrates* concludeth wiſely, that no man ought to be afraid of outward greatneſs, becauſe though the Aſs was clothed with a Lions skin, yet he was but an Aſs. And that the skins of Lions was uſed in garments, the ſaying of *Lyſander* the *Lacedemonian* doth ſufficiently prove; for when he was blamed for his outward pomp, whereby he beguiled others, therefore condemned for fooliſh hypocriſie, he made this anſwer, *Quo Leonis pervenire pellis non poteſt, vulpinam aſſuiſſe decuerit*, every man ought to have two ſutes of apparel, one of a Fox, and another of the Lion. For whither the Lions skin cannot come, the Fox will creep, and where the Fox cannot come, the Lion can. Clothes wrapt in a Lions skin killeth moths: alſo a mans body anointed with the fat of a Lion mingled with Garlick, ſo as the ſavour of the Garlick may overcome the Lions greaſe, he ſhall never be moleſted with Wolfs. Alſo if the folds of Sheep be compaſſed about with the melted greaſe of Lions, there is no Wolfs, nor ravening beaſts will annoy the flock. And ſo great is the fear of Lions to Wolfs, that if any part of a Lions greaſe be caſt into a Fountain, the Wolves never dare to drink thereof, or to come near unto it. Alſo *Pliny* affirmeth, that if an Amulet be made of Lions greaſe, no man ſhall be harmed, wounded, or killed, by treachery or deceit: but you muſt underſtand, that this was an invention of the Magicians or Wiſe men, that by ſuch pretences and promiſes of great matters, they might inſinuate themſelves into the favour of Princes and Noble men, and ſo make fools of the world; and therefore they preſcribe the fat which is taken from betwixt the eye-lids, or from the right part of their mouth or teeth, and the hairs from the neather chap. It is likewiſe affirmed, that a man anointed all over with the bloud of a Lion, ſhall never be deſtroyed by any wilde Beaſt.

Magical Phyſick for to be invincible.

There is an herb which *Democritus* calleth *Helianthe*, growing in the Maritime Mountains of *Cilicia*, and *Themiſcira*, wherewithal the fat of Lions decocted with Saffron, and Paulm Wine, with which all the Kings of *Perſia* were anointed, to make them beautiful bodies to look upon And above all other things, the Magitians preſcribed this compoſition, to make a man invincible; the tail and head of a Dragon, the hairs of a Lions fore-head, and the marrow of his bones, the ſpume or white mouth of a conquering Horſe, bound up together with a Dogs claws in a Harts skin, with the nerves of a Hart or Roe. The dung of a Lion drunk in Wine, maketh a man for ever more to abhor Wine.

Alex. ab Al.

It was alſo wont to be obſerved, that when Lions forſook the Mountains and Woods, to come and live in fruitful and fertil ſoils, it did fore-ſhew ſome great drought; and the like divination did *Agariſta* the Mother of *Pericles* make upon her dream, when ſhe was with childe, for ſhe thought ſhe brought forth a Lion, and ſo in ſhort time after ſhe brought forth *Pericles*, who was a valiant man, and a great Conqueror in *Græcia*. The ſight alſo of a Lion as a man travelleth by the high ways, is very ominous, and taken for an evil ſigne. There was alſo a Propheſie given out by *Pythias*, concerning *Cypſelus*, the ſon of *Aetion*, which ſaid in this manner;

Concipit in petris aquila enixura Leonem
Robuſtum, ſævum, genua & qui multa reſolvet.
Hæc bene nunc animis verſate, Corinthia proles,
Qui colitis pulchram Pallenem, altamq; Corinthum.

A monſter like a Lion. The Images and ſeveral ſtatues of Lions.

In the year of our Lord 1274, there was a certain Noble woman in the Biſhoprick of *Koſtnizer*, which brought forth a childe like to a Lioneſs in all parts, but it had the skin of a man: Unto this diſcourſe I may add the Images of Lions, both in Temples, and alſo upon ſhields; and firſt of all in the Temple where the ſhield of *Agamemnon* hung up, (as *Paucennius* writeth) there was the picture (*Fear*,) drawn with a Lions head, becauſe as the Lion ſleepeth little, and in his ſleep his eyes be open; ſo is the condition of Fear; for we have ſhewed already, that the Lion when he ſleepeth hath his eyes open, and when he waketh he ſhutteth them, and therefore the Ancients did ſymbolically picture of a Lion upon the doors of their Temples, and upon the Ships alſo, in the fore-part of them, they ingraved the figure of Lions, according to this ſaying of *Virgil*:

Cælius.
Anthologius.

——————Aeneia puppis
Prima tenet roſtro, Phrygios ſubjecta Leones.

It was alſo a uſual cuſtom to picture Lions about Fountains and Conduits, eſpecially among the *Egyptians*, that the water might ſpring forth of their mouths, *Quoniam Nilus arvis Ægypti novam aquam invebit, ſole tranſeunte Leonem*; *becauſe that Nilus did overflow the fields of Egypt, at what time the Sun paſſed through the ſign Leo.* Therefore alſo the River *Alpheus* was called *Leontios poros*, the Lions fountain, becauſe at the heads thereof, there were dedicated the pictures of many Lions. There was a noble Harlot called **Leæna**, which was acquainted with the tyrannies of *Harmodius*, and *Ariſtogiton*; for which cauſe ſhe was apprehended, and put to grievous torments, to the intent ſhe ſhould diſcloſe them, but ſhe endured all unto death, never bewraying any part of their counſel: After her death, the *Athenians* deviſing how to honour that vertue, and becauſe ſhe was a Harlot or common Curtizan, they were not willing to make a ſtatue for her in the likeneſs of a Woman, but as her name was *Leæna*, that ſignifieth a Lioneſs, ſo they erected for her the picture of a Lioneſs; and that they might expreſs the vertue of her ſecreſie, they cauſed it to be framed without a tongue. Upon the grave of *Lais*, there was a covering containing the picture of a Lion, holding a Ram in his fore-feet by the buttocks, with an inſcription that a Lion held the Ram; ſo do Harlots hold their lovers, which *Alciatus* turned into this Epigram:

Varinus.
Pauſanias.
Atheneus.

Quid ſcalptus ſibi vult aries, quem parte Leæna
Unguibus apprenſum poſteriore tenet?
Non aliter captos quod & ipſa teneret amantes,
Vir gregis eſt aries, clune tenetur amans.

There was alſo a Lion at *Delphos*, which weighed ten talents of gold; and at the entrance of *Thermopylæ* upon the Tombe of *Leonides* the Captain of the *Spartans*, there ſtood a Lion of ſtone: Upon the ſteps of the Capitol of *Rome*, there were two Lions of black Marble touch-ſtone. And the *Cyziceni* ingraved upon one ſide of their money the picture of a Lion, and on the other ſide the face of a woman. King *Solomon* built his Ivory Throne upon two Lions of Braſs; and upon the ſteps or ſtairs aſcending up to that Throne were placed twelve Lions, here and there. And from hence it came, that many Kings and States gave in their Arms the Lion, Rampant, Paſſant, and Regardant, diſtinguiſhed in divers colours in the fields of Or, Argent, Azure, and Sables, with ſuch other terms of Art. The Earth it ſelf was wont to be expreſſed by the figure of a Lion; and therefore the Image of *Atergas* was ſupported with Lions. *Cybele* the faigned Goddeſs of the Mountains was carryed upon Lions. And it is faigned that the *Curetes*, which nouriſhed *Jupiter* in *Creet*, who was committed to them by his mother *Rhea*, by the anger of *Saturn*, were turned into Lions, who afterwards by *Jupiter* when he reigned, were made the Kings of beaſts, and by him enjoyned to draw the Chariot of his Mother *Rhea*, according to this verſe;

Agricola.
Oppianus.
Varinus.

Ei junctæ currum Dominæ ſubiere Leones.

There is a conſtellation in Heaven called the Lion, of whom *Germanicus* writeth in this ſort, that he is the greateſt and moſt notable amongſt the ſignes of the Zodiack, containing three ſtars in his head and one clear one in his breaſt, and that when the Sun cometh to that ſigne which happeneth in the month of *July*, at which time the vehement heat of Summer burneth the earth, and dryeth up the Rivers. And therefore becauſe the Lion is alſo of a hot nature, and ſeemeth to partake of the ſubſtance and quantity of the Sun, he hath that place in the Heavens. For in heat and force he excelleth all other beaſts, as the Sun doth all other ſtars.

The conſtellation of the Lion.

In his breaſts and fore-part he is moſt ſtrong, and in his hinder-part more weak, ſo is the Sun, encreaſing until the noon or fore-part of the year, until the Summer, and afterwards ſeemeth to languiſh towards the ſetting, or later part of the year called the Winter. And the Lion alſo ſeemeth always to look up with a fiery eye, even as the Sun which is patent with the perpetual and infatigal ſight upon the earth. The Lion alſo is a ſignification of the Sun, for the hairs of his mane do reſemble the ſtreaming beams of the Sun, and therefore this conſtellation is ſtyled with the ſame Epithets that the Lion and the Sun are, as heat-bearing, æſtive, ardent, arent, calent, hot, flammant, burning, *Herculean*, mad, horrible, dreadful, cruel, and terrible. It is feigned of the Poets, that this Lion was the *Nemæan* Lion ſlain by *Hercules*, which at the commandment of *Juno* was foſtered in *Arcadia*, and that in anger againſt *Hercules* after his death, ſhe placed him in the heavens.

Macrobius.

To conclude this ſtory of the Lions, it is reported of the Devils called *Onoſceli*, that they ſhew themſelves ſometimes in the ſhapes of Lions and Dogs, and the Dog of *Serapis*, which was feigned to have three heads, on the left ſide a Wolfs, on the right ſide a Dogs, and in the middle a Lions. We have ſhewed already, that the people called *Ampraciotæ*, did worſhip a Lioneſs,

becauſe

Lions nouriſhed in Temples, & worſhipped.

becauſe ſhe killed a Tyrant. And the *Egyptians* builded a City to the honor of Lions, calling it *Leontopolis*, and dedicating Temples to *Vulcan* for their honor. And in the porches of *Heliopolis*, there were common ſtipends for the nouriſhing of Lions.

As in other places where they are fed daliy with Beef, and have alſo windowes in their lodgings, with great Parkes and ſpaces allotted unto them for their recreation and exerciſes: with an opinion that the people that came unto them to offer and worſhip them, ſhould ſee a ſpeedy revenge, through divine judgement upon all thoſe that had wronged them by perjury, or broken the oath of fidelity.

To conclude, in holy Scripture we finde that our Saviour Chriſt is called the Lion of the tribe of *Judah*; for as he is a Lamb in his innocency, ſo is he a Lion in his fortitude. The Devil alſo is called a roaring Lion, becauſe Lions in their hunger are moſt of all full of fury and wrath. And ſo I will conclude and end this ſtory of Lions with that Emblem of *Alciatus*, deſcribing how little Hares did rejoyce and leap upon dead Lions:

Æacidæ moriens percuſſu cuſpidis Hector,
Qui toties hoſtes vicerat ante ſuos;
Comprimere haud potuit vocem inſultantibus illis,
Dum curru & pedibus nectere vincla parant.
Diſtrahite ut libitum eſt: ſic ceſſi luce leonis
Convellant barbam vel timidi Lepores.

The medicines of the Lion.

The bloud of a Lion being rubbed or ſpred upon a Canker, or upon a ſore which is ſwelled about the veins, will preſently and without any pain cure and eaſe the grief thereof. Whoſoever doth anoint his body all over with the bloud of a Lion, may ſafely and without any danger travel amongſt any wilde beaſts whatſoever.

Albertus. *Sextus.*

The fleſh of a Lion being eaten either by a Man or Woman which is troubled with dreames and fantaſies in the night time, will very ſpeedily and effectually work him eaſe and quietneſs. The ſame alſo being boyled or baked, and given to them which are diſtraught of their wits to eat, doth bring them eaſe and comfort, and renew their wits again: it is alſo very good for the pains of deafneſs or the ears. And being taken in drink, it helpeth thoſe which are troubled with the ſhaking of the joynts or the Palſie.

Æſculapius.

Whoſoever ſhall have ſhooes made of the hide or skin of a Lion or Wolf, and wear them upon his feet, he ſhall never have any pain or ach in them. They will alſo defend him that uſeth them from the Gowt, or ſwelling in the feet or legs. The skin or hide of a Lion is alſo very good for either Man or Woman which are troubled with the piles or ſwelling of the veins, if they ſhall but at ſome ſeveral times ſit upon it.

Galen.

The fat of a Lion is reported to be contrary to poiſon, and venemous drinks, and being taken in Wine, it will by the ſent expell all wilde Beaſts from any one; and it doth alſo reſiſt and drive away the ſent or ſmell of Serpents, by which they follow men to deſtroy them. Whoſoever doth anoint his body all over with the tallow or ſewet of the reins or kidney of a Lion, ſhall by the ſent and ſavour thereof expell and drive away from him all Wolves, how greedy and ravenous ſoever they be.

A Man being throughly anointed with the greaſe of a Lion being melted, doth drive away from him and put to flight any living creature whatſoever, and alſo venemous and poiſonous Serpents themſelves.

Raſis.

If any wilde Beaſt be anointed with the tallow or ſewet of a Lion which is diſſolved and clarified, he ſhall neither be troubled with the ſtinging of Flies or Bees. The fat or greaſe of a Lion being mingled with Oyl of Roſes doth keep the skin of the face free from all blaſtings and blemiſhes, being annointed thereupon, and doth alſo preſerve the whiteneſs thereof, and being mingled with Snow-water, doth heal any fleſh which is burnt or ſcorched upon a man, and doth alſo cure the ſwelling of the joynts.

The ſewet or fat of a Lion being mingled with other ointments, and anointed upon the places of either Man or Woman who have any blemiſhes in any part of their bodies, doth preſently expell the ſame. The ſame virtue hath the dung or dirt of a Lion being mixed with the aforeſaid unguent.

The greaſe of a Lion being diſſolved and preſently again conglutinated together, and ſo being anointed upon the body of thoſe who are heavie and ſad, it will ſpeedily extirpate all ſorrow and grief from their hearts. The ſame alſo being mixed with the marrow of a Hart and with Lettice, and ſo beaten and bruiſed, and afterwards mingled all together, is an excellent remedy againſt the ſhrinking of the Nerves and ſinews, and the aches of the bones and knuckles about the legs, being anointed thereon.

The greaſe of a Lion by it ſelf only, mixed with a certain ointment, is alſo very profitable to expell the Gowt. The ſame being mingled with Oyl of Roſes, doth eaſe and help thoſe which are troubled dayly with Agues and Quartern Fevers. The ſame alſo being diſſolved and powred into the ears of any one which is troubled with any pain in them, will preſently free him from the ſame.

There is alſo in this Lions greaſe, another excellent virtue which is this, that if the jawbone of any one be ſwelled and anointed over with this greaſe being melted, it will very ſpeedily avoid the pain thereof.

The fat or ſewet of a Lion being melted and mixed with certain other things, and ſo miniſtred unto any one that is troubled with the wringing of the bowels, and bloudy flux, in the ſame manner as a glyſter is uſed, is commended for an excellent remedy for the ſame. The ſame alſo being mingled with a certain Oyl and warmed together, and anointed upon the head of any one, whoſe hair doth ſhed, or is troubled with the Foxes evill, doth immediately help and cure the ſame. The ſeed of a Hare being mixed with the fat of a Lion, and anointed upon the privie members of any one, will ſtir and incitate them up to luſt, how chaſt ſoever they ſhall be. *Galen.*

The fat of a Lion mingled with the fat of a Bear, and melted together, being anointed upon the belly, doth allay and aſſwage the hardneſs thereof, as alſo any other pain or grief in the ſame. *Myrepſus.*

The brains of a Lion, as alſo of a Cat, being taken in drink, doth make him mad unto whom it is given. The ſame being mingled with ſome ſmall quantity of Oyl of Spike, and powred or diſtilled into the eares of any one which is deaf or thick of hearing, will very effectually cure the deafneſs. *Albertus.*

If the eye teeth of a Lion be hung about the neck of a young childe before that he caſt his teeth, and the beginning of his ſecond or new teeth, they will keep him for ever from having any ach or pain in them. The heart of a Lion being beaten into ſmall powder, and taken in drink, doth very ſpeedily cure and heal thoſe which are troubled with Agues or Quartain Fevers. *Raſis.*

The liver of the Lion being dryed, and beaten to powder, and put in the pureſt wine which is poſſible to be gotten, and ſo drunk, doth take away the pain and grief from any one which is troubled with his liver. *Pliny.*

The gall of a Lion being taken in drink by any one, doth kill or poiſon him out of hand. But ſome do impute this venom to be in the gall of a Leopard. The gall of a Lion being mixed with pure water, and anointed upon the eyes of any one, will take away the blemiſhes thereof, and cauſe them to ſee clearly: and the fat of the Lion being added thereunto, is an excellent remedy againſt the Falling ſickneſs. A very little part or dram of the gall of the Lion being put in wine and ſo drunk, will ſpeedily help and cure thoſe which are troubled with the Yellow Jaundiſe. The ſame diſeaſe is alſo cured by yellow Carets being ſtamped and put in wine, and ſo given in drink. *Betrutius.* *Albertus.*

For the ſores or blemiſhes in the eyes, the gall of a Lion being mingled with Hony, and ſo anointed upon them, is commended for a very ſpecial and effectual cure or healing. The gall of a Lion, a Bear, or an Ox being mixed with certain other unguents, is very much uſed for the extending or moving forward of conception. *Galen.*

The right ſtone of a Lion being beaten together with Roſes, and ſo ſtrained hard untill ſome liquid juyce or water doth proceed from them, and ſo taken in drink, doth make that party barren unto whom it is given: it hath the like effect in it, if it be eaten either roaſted or broyled, or raw and bloudy. *Raſis.*

The fat which proceedeth from the privity or ſecret parts of a ſhe Lion being put in a veſſell made of Ivory, and ſo being temperately mollified, is commended for a very effectual and ſpeedy means to hinder conception. *Aetius.*

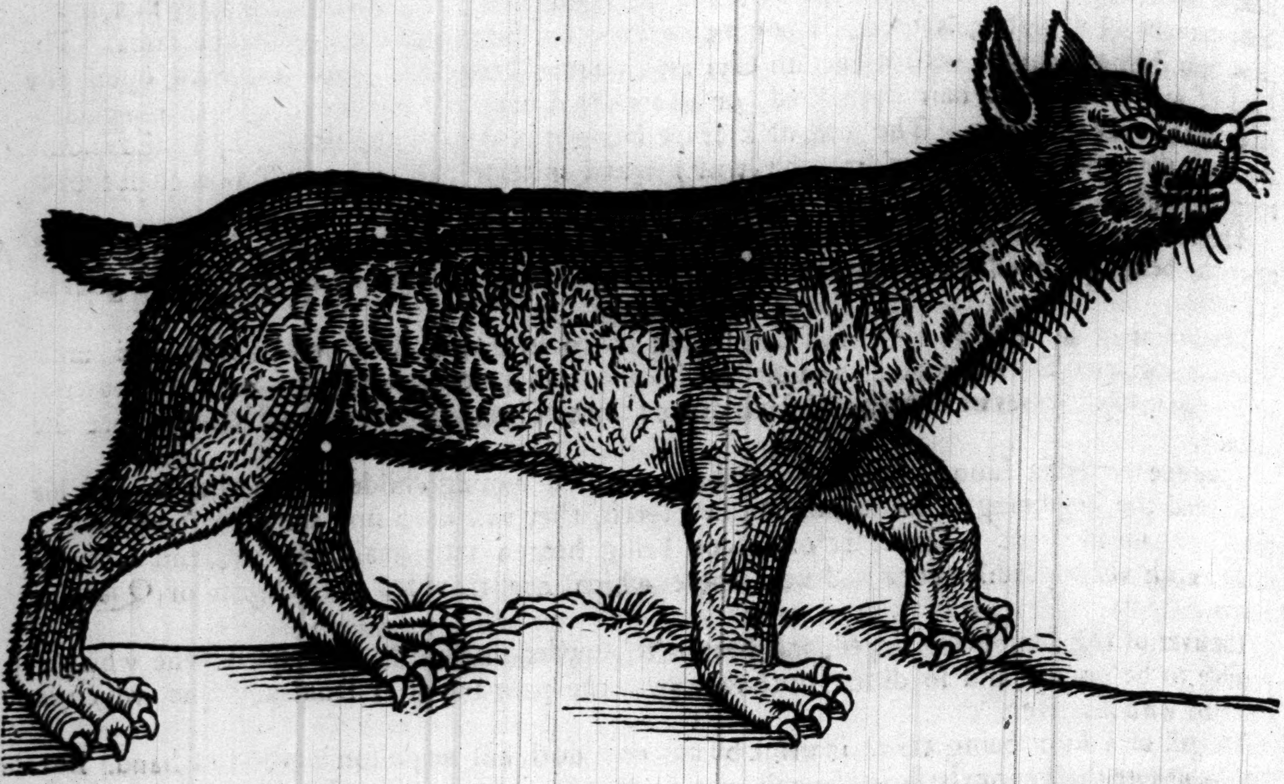
The dung or dirt of a Lion being dryed into powder, and mixed with ſome certain ſoft and eaſie ointment, with which any one may be eaſily anointed over all his body, doth drive away the blemiſhes and ſpots in the skin. *Albertus.*

The hurts or ſores which are bitten either by a male or female Lion, are ſo full of matter and filthy corruption, that the running thereof can be ſtayed and repreſſed neither by lapping of clothes about them, nor by waſhing them by ſpunges: they are cured by the ſame means as the ſores which are bitten by ravenous Dogs are, as I have before declared in the cures of the Hyæna. *Ariſtotle.*

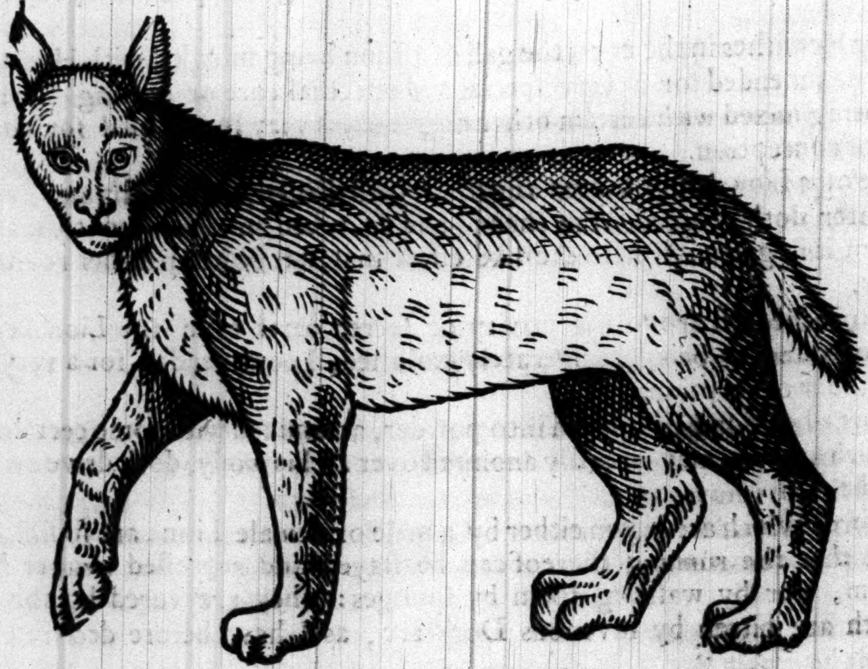
The wounds which are made by the teeth of a Lion are very hurtful; for as much as the venome of their interior parts doth go into the wounds, and when the wounds are tied, the venome iſſueth from them into the things with which they are tied, and the ſame bindings being again bound upon the wound, doth ſo infect it, that it can be cured by no other means but by the aforeſaid medicine.

The bitings of Lions and ſuch like Beaſts are ſo dangerous, in regard of their ſtrength and fierceneſs, for they do not only bite, but alſo wretch and tear the wounds which they make with their teeth or nails. And thus much ſhall ſuffice for the cures of the Lion.

Of the *LINX.*



The picture of a Linx once in the Tower of London, *which was firſt deſcribed by Doctor* Cay.



The names of the Linx.

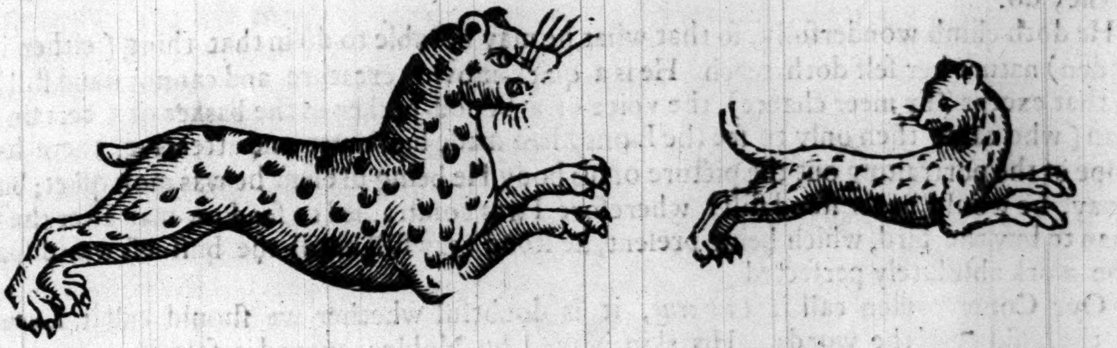
THe wilde Beaſt which among the *Germans* is named *Luchſs*, by making a name from the Linx, or as others write *Lux*, or *Luxes*: amongſt the *Italians* is at this day called *Lupo cervero*, or *Cerverio*, being engendered betwixt a Hinde and a Wolf; and likewiſe amongſt the *Rhetians* which ſpeak *Italian*: and the *Sabaudians*, and the *Dalmatians* or *Illyrians*, *Cerviro*. But there was a certain *Bohemian* of late, which declared that the Linx as he conjectured, was called among the *Illyrians*, *Rys*, (and that it was called *Luchſs* among the *Germans*) but that amongſt the *Illyrians* was leſſer then the other, yet very like. The *Spaniards* do as yet call him by the *Latin* name *Lince*, even as certain *Italian* writers in their vulgar tongue, as *Alunnus* doth teſtifie. In certain places in *Helvetia*, and about *Sedunum*, they call him *Thierwolf*. Amongſt the barbarous writers he is called by the name of an *Ounce*; which I do ſuppoſe to be a *Panther*. *Fr. Alunnus* doth ſay, that this Beaſt was called of certain *Italian* writers in the vulgar tongue, *Lonza*, ſome interpreting it to be a Lioneſs, ſome a *Pardal*, a *Panther*, or a *Wolf*, engendred of a *Hinde* and a *Wolf*.

Ounces do commonly ſeem to be called rather Linxes then Panthers; but although ſome late writers do attribute the name to a Leopard or a leſſer Panther, it ſeemeth notwithſtanding corrupt from the Linx: for he is a creature very like him both in his craft and ſhape of his body, but a Linx hath his tail ſhorter, and his longer. *Libards-bane* doth kill Leopards and Linxes.

Bellonius.

Avicenna.

Theſe Figures were taken by Olaus Magnus, *wherein the Linx purſueth a wilde Cat.*



The *Latins* call this beaſt *Lupus Cervarius*, and Lynx of the *Greek* word *Lugx*, from whence the *German*, *ein Luchs*: and it hath been believed, that the *Latin* name was given unto it, becauſe they were ingendred betwixt a Wolf and Hind, but there is no wiſe man that will ſuppoſe or be eaſily induced to believe, that Beaſts of ſuch hoſtility, and adverſe diſpoſitions in nature, ſhould ever ingender or ſuffer copulation together; and therefore I rather ſuppoſe that it is called *Cervarius*, either becauſe it hunteth Harts and Hinds, or elſe becauſe it imitateth their young ones in the outward colour and ſpots in the skins.

The reaſon of the *Latine* names.

There was a Beaſt (ſaith *Pliny*) which was called *Chaus*, and by the *French*, *Raphlus*, brought in publick ſpectacle by *Pompey* the great, out of *France*, which in ſhape reſembleth a Wolf, and in ſpots a Leopard; and therefore I think that *Chaus*, *Raphlus*, and *Lupus Cervarius*, are divers names of one and the ſame wilde Beaſt, and yet by divers writers it is confounded with the *Thoes*, or with the Panther, or with the Ounce.

But I cannot agree thereunto, ſeeing it is written by *Pliny*, that about the River *Padus* in *Italy*, there are certain Beaſts called *Lynces*, from whence cometh the *Lyncurion*, which by *Zenothemis* are called *Lange*, and by others *Languriæ*. And *Solinus* alſo agreeth thereunto, taking *Lupus Cervarius*, for a kind of Linx.

Some have fabled that there is a Beaſt called *Lynceus*, which *Suidas* and *Varinus* call *Oxurderches*: and they ſay, that the eyes of it are the beſt ſighted of all the Beaſts in the world. *Oppianus* maketh two kind of Linxes, one a greater, and hunteth Harts and great Beaſts; the other a ſmaller, and hunteth wilde Cats and Hares. And firſt of all I will ſet down the deſcription of this Beaſt, according as it was taken in *England* by that learned Phyſitian D. *Cay*, whoſe words I do here expreſſe.

Two kinds of Linxes.

There is in the Tower of *London* (ſaith *John Cay*) a Beaſt which eateth fleſh, his whole body being of the greatneſs of a Lamb of two moneths old, having his head, mouth, feet, and nails like to a Cat. But concerning his beard and tail, his beard hangeth down on both ſides, divided in the middle with ſundry colours, the former being white, and the latter black; his tail is ſhort and thick, being from the middle to the uppermoſt prart red, and to the lower part black; his eyes being yellow, the hair of the eye-lids obſcurely waxing white. His ears erected upright, as the ears of a Cat, being repleniſhed within with white hair, without covered with white and black, but ſo that the upper part is black, the middle (for it is divided into three parts) be white, and the loweſt black again. Neither is it content to be ended in his own courſe, except alſo that his former parts, or the fartheſt brinkes or edges, and alſo his latter may be bended on the other ſide, in like manner as the edges of the Prieſts hat of the *Grecian* Church are folded amongſt the *Venetians*.

A ſtory of a Linx by D. *Cay*, taken in *England* by the ſight of this beaſt in the Tower.

In the top of his ears there are placed ſome black hairs, as it were a foretop or tuft. The colour of this beaſt in the outmoſt parts is red, in the innermoſt white, but ſprinkled here with black ſpots, and almoſt by rowes, and there with ſpots ſomewhat lighter then the other, all his hair being for the moſt part white all over: all his body, except the aforeſaid ſpots, as it is in certain black skins of young Conies. And on both the ſides of his noſe there are four ſpots ſet in order. In both his lips, as now we will declare: in his uppermoſt lip there are five orders or rowes, being of a very eqnall diſtance.

In the firſt row, and the upper, four ; in the ſecond, five ; in the third, eight ; in the fourth, five ; in the fift, there are four ; and theſe alſo every one in his order, having an equall diſtance. In the lower lip there are only ſeven more manifeſt and evident, being placed in two rowes. In the firſt, four, to the very mouth of the lip ; in the ſecond after them three others ; after theſe, other leſſer but not placed with ſo certain and true order as the uppermoſt.

In the upper lip on both ſides there are certain white hairs being rougher then thoſe in Cats and Lions. His noſe is ſomewhat of a pale red colour, being ſomewhat diſtinct or apart from the reſt reſt of his face on every ſide with a black line. Another line alſo doth divide the outermoſt part of his noſe by length (as in an Ounce) but only being lightly lead by the top or higheſt parts, not impreſſed higher by the lowermoſt.

The skin of his feet are exceeding hard, and his nails are hid in his feet (as the nails of an Ounce and a Cats are) neither doth he put them forth at any time, unleſſe in taking of his prey as they do.

He doth climb wonderfully, ſo that what he may be able to do in that thing (either in his cave or den) nature her ſelf doth teach. He is a quick-moving creature, and cannot ſtand ſtill in a place, ſo that except (by meer chance) the voice of a Wood-pecker in the basket of a certain Countrey man (who came then only to ſee the Lions) had made him quiet and attentive, there had been no hope of the portraiting out the picture of his body. He being preſent he was moſt quiet; but he going away, he would never ſtand ſtill : wherefore I was conſtrained to ſend my man after the Countreyman to buy the bird, which being preſent, he ſtood very ſtill untill the buſineſs was diſpatched and the work abſolutely perfected.

Our Countreymen call it *Luzarne*, it is doubtful whether we ſhould call it *Leunce*, or *Lynx*, in the affinity of the words. His skin is uſed by Noble men, and is ſold for a great price. He is angry at none but them which offer him injury ; his voice is like a Cats, when he would ſnatch away the food from his fellow. He is loving and gentle unto his keeper, and not cruell unto any man. *So far Doctor Cay.*

Another deſcription taken by the ſight of a skin.

Unto this deſcription of Doctor *Caius*, I may add another deſcription that was taken by the ſight of the skin of this Beaſt. The length whereof from the tip of the noſe unto the very tail, was four ſpans and five fingers, and the length of the tail ſeven fingers, the breadth of the ſhoulder-blades of his back, and the top of his neck, was two palmes ſix fingers and a ſpan ; the length of his forelegs, a ſpan and five fingers ; and the length of his hinder-legs, a ſpan and three fingers ; the hair was very ſoft, but yet thick and deep, the tips of the hair upon his back were white, but in the neathermoſt parts they were red, and they are moſt white which fall downwards on both ſides from the middle of his back.

In the middle they are more red and duskie, the middle of the belly, and eſpecially the lower part is white, but both ſides of it are white and red, and every where upon his belly there are black ſpots, but moſt plentiful in the bottom of the belly, and on both ſides. The uppermoſt part of his neck, right over againſt his ears, hath great black ſpots, his ears are ſmall, and not bigger then a little Triangle, in the edges they are black, although with the black hairs there are mingled ſome white. His beard is mixed with black and white hair, which hair is great like to briſtles. The teeth are moſt white, and the upper canine teeth hang over the neather the breadth of a finger, whereof ſix are ſmall, and of thoſe ſix two are the greateſt, and all the reſidue are very ſmall on the neather chap ; and to conclude, all the teeth were like a common Weaſils or Martil. His feet were very rough, being five diſtinct claws upon the fore-feet, and four upon the hinder, which claws were very white and ſharp.

The price of a Linxes skin. Countries of Linxes.

The tail was of equall bigneſs and thickneſs, but in the tip thereof it is black. Theſe skins are ſold for three Nobles a piece, and ſometimes for ſix, and ſometimes for leſſe, according to the quantity of the skin and Countrey wherein it is ſold. And unto this deſcription do *Bellonius* and *Bonarus* agree. For *Bellonius* at *Conſtantinople* ſaw two *Linxes*, much like unto Cats ; and *Bonarus* had oftentimes ſeen them hunted in *Moſchovia*, *Lituania*, *Polonia*, *Hungaria*, and *Germany* ; but he commendeth above all the Linxes of *Scotland* and *Sweſia*, as moſt beautiful, having Triangular ſpots upon their skins. But the *Indian* and *African* Linxes, he ſaith have round ſpots, ſharp-briſtly ſhort hair, and full of ſpots on all parts of their body, and therefore they are not ſo delicate as the Linxes of *Europe*. which with good cauſe he conjectureth to be the Linx that *Pliny* ſpeaketh of, and not unlike to that which is bred in *Italy*. There are Linxes in divers Countries, as in the forenamed *Ruſſia*, *Lituania*, *Polonia*, *Hungary*, *Germany*, *Scotland*, ſo alſo they are moſt abundant in *Scandinavia*, in *Sweſia*, ſo alſo about *Hyelſus*, and *Helſingia* : likewiſe in all the Regions upon the *Alpes*, and in *Sylva Martia*, they are alſo very plentiful in *Ethiopia*, in *France* and *Italy*, about the River *Padus*, and in the Iſland *Carpathus*. And thus having diſcourſed of their Countrey and proportion, whereby their differences and kinds may be diſcerned, we will leave every one of them to their particular, and proceed to the treatiſe and deſcription of their general natures.

Their outward ſhape and ſeveral parts.

There is no great difference betwixt their outward ſhapes and proportion, for both the ſmaller and the greater have bright eyes, divers coloured skins, a little head, a nimble and chearful face, and (*Albertus* ſaith) that their body is longer then the body of a Wolf, but their legs ſhorter, miſtaking the Linx for the *Thoes*. Their eyes ſtand forth of their heads very far, their tongue like the tongue of a Serpent, and *Textor* affirmeth that they have paps or udders in their Breaſts, but ſurely he taketh *Lynx* for *Sphinx*.

There

Their meat goeth into the belly ſtraight through the maw, without ſtaying, and therein is a note of their inſatiable voracity, for none but inſatiable Beaſts or Birds are ſo affected, as in Birds, the *Cormorant*. It hath no ankle bone, but a thing like unto it; the nails are very long, as you may ſee in two of the former pictures, but he hideth them within his skin till he be angry, ready to fight or climb, or otherwiſe affected, as you may ſee by the picture of the Linx taken in the Tower of *London*.

The inward proportion and anatomy of their bodies is like unto a man, and therefore *Galen* giveth this leſſon to ſtudents in Phyſick, *Præſtat ſimiarum homini quam ſimillimarum artus diſſecare, cum te in exemplo exercere inſtitues, ſin ea non detur, aliquam ei proximam deligito, aut ſi nulla omnino Simia reperiatur, Cynocephalum, vel Satyrum, vel Lincem, ſummatim ea omnia, quibus artuum extrema in digitos quinq; diſcreta ſunt*; that is to ſay, It is good to diſſect thoſe bodies which are likeſt to a man, when one would inſtruct himſelf in Anatomy, and if he cannot finde an Ape, let him take a Baboon, a Satyr, or a Linx, and generally any creature, the extremity of whoſe ſinews and joynts are divided into five fingers or toes.

There be ſome that have thought, that Panthers, Pardals, Linxes, or Tygers, had been all of the kinde of Cats, becauſe of mutual reſemblance in the greatneſs and ſtrength of their nails, in the diſtinction of their skins, which are party coloured and fair, having alſo a round head, a ſhort face, a long tail, a nimble body, a wild mind, and get their meat by hunting: but herein I leave every man to this own beſt liking and opinion: for when we have done our beſt to expreſſe their natures and ſeveral properties, it ſhall be idle to ſpend time about diſputation to what rank or order every beaſt ought to be referred. For every one that readeth our ſtory, and ſeeth our pictures may either be ſatisfied, or elſe amend our labour.

The actions and diſpoſitions of Linxes.
Stumſius.

The Linx therefore biteth moſt cruelly and deep, and therefore is accounted, *Rapax animal, inſtar lupi, ſed callidius*, a Beaſt as ravening as a Wolf, but more crafty; they get up into trees, and from them leap down upon very great beaſts, and deſtroy them, being enemies both to men and beaſts, and at their pleaſure, according to neceſſity, ſet upon both.

The place of their abode.

They are taken ſometimes in *Germany*, in the Dutchy of *Wertinberg*, and that it was once credibly affirmed, one of them leaped down from a tree upon a Countrey man, as he paſſed under the ſame tree, but being weary, and having an Ax on his neck, received her on the ſharp edge thereof, and ſo killed her, otherwiſe ſhe would ſoon have killed him.

Their meat or food.

They live in the mountains alſo, where they are killed by poiſon, or elſe hunted by armed men on Horſe-back, and included with multitudes, for their hunting is perilous, and therefore they muſt be incloſed with great company. Some take them with ditches, as we heard before Lions were taken; others in ſnares or gins laid upon the rocks, and ſtones, and whenſoever they are hunted with Dogs, they run directly to the woods or to the next trees, wherein they are killed by gun ſhot.

Olaus Mag.

In the Summer time they are very weak and live among the Rockes, never ſtraying far from their own lodging, hurting no man untill the Autumn. They hunt wilde Goats, whom they follow from Rock to Rock, leaping as faſt or faſter then the Goats. They hunt alſo wilde Cats and Hares, and ſome other little Beaſts; but the greateſt Linxes hunt Harts and Aſſes, and their manner is, as we have ſaid already, to get up into trees, and there to lie in wait for their prey, untill they eſpy it under the boughs, and then ſuddenly leap into the neck thereof, whether it be a Man or a great Beaſt, wherein they fix their claws ſo faſt, that no violence can ſhake them off, but with the ſharpneſs of their teeth, bite into the ſcull, and eat out the brains, to the utter deſtruction of the Man or Beaſt, whomſoever they light upon, but if it be a ſmall Beaſt, they eat the whole body thereof, and not only the brains.

A ſingular note of forgetfulneſs.
Pliny.
Solinus.

Yet this is a wonderful ſecret in their nature, that although they be long afflicted with hunger, yet when they eat their meat, if they hear any noiſe, or any other chance cauſe them to turn about from their meat, out of the ſight of it, they forget their prey notwithſtanding their hunger, and go to ſeek another booty, never remembring that which they had before them, nor yet return back again to eat thereof. The voice of this Beaſt is called by a ſpeciall word in *Latin*, *Orcare*, or *Corcare*, which I may *Engliſh* Croaking, or Whining, for the voice thereof is not great, and therefore the Author of *Philomela* ſaith, *Dum Lincei orcando fremunt, urſus ferus uncat*; While the Linx croaketh, the wilde bear whineth. And *Arlunus* ſaith, *Corcare vox lupi Cervarii*; to croak is the voice of a Linx.

The voice of Linxes.

The ſight of Linxes.

It is thought that of all Beaſts they ſee moſt brightly, for the Poets faign, that their eye ſight pierceth through every ſolid body, although it be as thick as a wall; yet if you offer unto it any thing which is tranſparent, it is much offended, and ſometimes blinded, but I cannot tell, whether the ſight be attributed to the Linx truely according to nature, or fabulouſly in imitation of the Poetical fiction of *Lynceus*, of whom it was ſaid in ancient time, that he ſaw through ſtone wals, of whom *Horace* writeth thus:

Si poſſis oculo, quantum contendere Lynceus,
Non tamen idcirco contemnas lippus inungi.

Orpheus.

Marcus Tullius alſo ſaith in this manner, in the admiration of *Lynceus* eye-ſight, as though darkneſs did not hinder it, *Quis eſt tam Lynceus qui in tantis tenebris nihil offendat?* *Apollonius* ſaith, that ſo

great

The fables of the Poets about *Lynceus*.

Theocritus.

Cœlius.

Palæphatus.

N. Spreng.

Their urine and tears or weeping.

Urine congealed into a medicinal ſtone.

great was the perfection of this mans eye-ſight, as he was believed to ſee perfectly down into the earth, and what was done in Hell. *Plutarch* ſaith, that he could ſee through trees and rocks. *Pauſanias* writeth, that he was a King, and raigned after *Danaovita*. *Pyndarus* writeth, that *Ida* and *Lynceus* were the ſons of *Aphareus*, and that a contention growing betwixt *Ida*, and *Caſtor*, and *Pollux* at the marriage of *Helena* becauſe they twain would have raviſhed *Phœbe* and *Illayra*, the wives of *Ida* and *Lynceus*; *Ida* did therefore ſlay *Caſtor*, and afterwards *Lynceus* ſlew *Pollux* when he ſpyed him lie under an Oake, from the mountain *Taygetus*. Wherefore *Jupiter* ſlew *Ida* with lightning, and placed *Caſtor* and *Pollux* in heaven among the ſtars. There was another *Lynceus* husband of *Hypermneſtra*, Daughter of *Danaus*, which *Danaus* having commanded all his Daughters in the night time to kill their Husbands, ſhe only ſpared her husband *Lynceus*. But the truth is, that *Lynceus* of whom there is ſo many fables of his eye-ſight, was the firſt that found out the mines of Gold, Silver and Braſſe in the earth, and therefore ſimple people ſeeing him bring Gold and Silver out of the earth, and coming now and then upon him while he was digging deep for it, uſing the light of Candles, which he never brought out of the pits, they fooliſhly imagined, that by the light of his eyes he was firſt of all led to ſeek for thoſe treaſures, and from hence came the common proverb, *Lynceo perſpicatior*, for a man of excellent eye-ſight. And to conclude, others ſay, that *Lynceus* could ſee the new Moon the ſame day or night that ſhe changed, and that therefore the fame of his eye-ſight came ſo to be celebrated, becauſe never any mortall man ſaw that ſight, himſelf excepted. And from theſe fables of *Lynceus* came the opinion of the ſingular perſpicacity of the Beaſt Linx: of whom as I ſaid before, as the ſight is very excellent, and ſo far excelling men (as *Galen* ſaith) like as is alſo the ſight of *Eagles*, ſo I do not hold any ſuch extraordinary and miraculous ſenſe to be in this beaſt, after any other manner, then the Poets did faign it to be in *Lynceus*, except as before ſaid, *Omnes imbecilliore ſumus cernendi poteſtate, ſi aquilarum & Lyncis acuminibus conferamur*. And therefore the proverb before ſpoken of, may as well be applyed metaphyſically to the Beaſt Linx, as Poetically to the man *Lynceus*; and ſo much may ſuffice for the ſight. It is reported alſo that when they ſee themſelves to be taken, they do ſend forth tears and weep very plentifully. Their urine they render all backwards, not only the female but the male alſo, wherein they differ from all other Beaſts: and it is ſaid of them, that they knowing a certain virtue in their urine, do hide it in the Sand, and that thereof cometh a certain pretious ſtone called *Lyncurium*, which for brightneſs reſembleth the Amber, and yet is ſo congealed and hardned in the ſand, that no Carbuncle is harder, ſhining like fire, wherewithal they make ſealing Rings, which cauſed *Ovid* to write thus;

Victa racemifero Lyncas dedit India Baccho,
E quibus, ut memorant, quicquid veſica remiſit
Vertitur in lapides, & congelat aere tacto.

But they ſay that of the male cometh the fiery and yellow Amber, and of the female cometh the white and pale Amber. In *Italy* they call it *Langurium*, and the Beaſt *Languria*, and *Lange*. This *Lyncurium* is called of ſome *Electrum*, *Pterygophoron*, and they ſay it is the ſame which will draw unto it leaves, ſtraw, and plates of Braſſe and Iron, according to the opinions of *Diocles* and *Theophraſtus*, and that being drunk out of water is good for the ſtomach, and very convenient for the flux of the belly, according to *Dioſcorides*; and that it cureth the pains of the reins, and healeth the Kings evill, according to *Solinus*: And *Theophraſtus* goeth about to eſtabliſh this opinion by reaſon, and laboreth to perſwade it as probable, that the urine of a Linx ſhould congeal into a ſtone among ſand, as well as the urine of a man, to ingender a ſtone in the reins or in the bladder.

And of this opinion is *Pliny*, *Theophraſtus*, *Heſychius*, *Varinus*, *Zenothimis*, *Plutarch*, and *Ariſtotle*. But in my opinion it is but a fable: For *Theophraſtus* himſelf confeſſeth that *Lyncurium*, which he calleth *Lyngurion*, and Amber *Hualos*, is digged out of the earth in *Lyguria*. *Sudines* and *Metrodorus* ſay that there is a certain tree in *Lyguria*, out of which Amber is taken, and this tree is the black Popler, and it is alſo very probable, that ſeeing this Amber was firſt of all brought into *Greece* out of *Lyguria*, according to the denomination of all ſtrange things, they called it *Lyngurium* after the name of the Countrey, whereupon the ignorant *Latins* did faign an etymology of the word *Lyncurium, quaſi Lyncis urinam*, and upon this weak foundation have they raiſed that vain building; and for further demonſtration of this truth, *Dioſcorides* ſaith in his diſcourſe of the Popler, that it growing about the River *Eridanus*, ſendeth forth a certain humor like tears, which groweth hard, whereof they make that which is called *Electrum*, being rubbed, it ſmelleth ſweet, and for that it hath not only power to draw unto it Braſſe, Iron, and ſuch things, but alſo Gold, it is alſo called *Chryſophoton*; unto this *Lucianus* ſubſcribeth: and whereas it was ſaid that in *Italy* this Amber-ſtone is begotten, neer the River *Padus*, where ſtand many white Poplers; my conjecture is, that ſome ſuch like humor may iſſue out of them, and not only by accident, but through affinity of nature, and condenſate into a ſtone, which the people finding, covered in the ſand under the trees, and through their former perſwaſion, might eaſily take it for the ſtone engendred by the urine of the Linx.

Muſhroms grow out of a ſtone.

Hermolaus alſo writeth this of the *Lyncurium*, that it groweth in a certain ſtone, and that it is a kind of *Muſhrom*, or *Padſtoole* which is cut off yearly, and that another groweth in the room of it, a part of the root or foot being left in the ſtone, groweth as hard as a flint, and thus doth the ſtone encreaſe, with a natural fecundity: which admirable thing, (ſaith he) I could never be brought to believe, untill I did eat thereof in mine own houſe.

Evax (as it is recited by *Sylvaticus*) ſaith that the urine of the Linx, *domi ſervatus*, *generat optimos fungos ſupra ſe quotannis*, reſerved at home in ones houſe, bringeth forth every year the beſt *Muſhroms*. This is alſo called *Lapis Litzi*, and *Lapis proſius*, which is divided into three kindes, that is, *Jaſpis*, *Armeniacus*, and *Lapis phrygius*, called alſo *Belemintes*; wherewithal the Chirurgians of *Pruſſia* and *Pomerania*, cure green wounds, and the Phyſitians break the ſtone in the bladder. But the true *Lyncurium* which is extant at this day, and currant among the Apothecaries, is as light as the Pumice-ſtone, and as big as filleth a mans fiſt, being of a blackiſh colour, or of a ruſſet; the ruſſet is more ſolid, ſandy, and fat, and being bruiſed or eaten, taſteth like earth: both kindes are covered with little white skins, and there is apparent in them, a ſpungy tenacious ſubſtance, and this I take to be the *Muſhrom* whereof *Hermolaus* ſpeaketh. And by the little ſtones and ſmall skins, it may be conjectured to be *Corpus heterogenes*, *in terra coaleſcens*: A *Hetrogenean* body encreaſing in the earth, wherewithal it hath no affinity.

There was another ſtone of the urine of a Linx to be ſeen in *Savoy*, the ſubſtance whereof was clearly cryſtal, the form of it was triangular, the hardneſs ſo, as you might ſtrike fire with it, and the colour partly white, and partly like Wine mingled with water; ſo that I will conclude, that the urine of a Linx may engender a ſtone, though not in ſuch manner as is beforeſaid. For the *Arabian Jorath* affirmeth, that within ſeven dayes after the rendring, it turneth into a ſtone; but it is not the *Lyncurium* properly ſo called, for that is the Amber or Gum before ſpoken of, although catachreſtically ſo called.

And if it be true, that there be certain *Muſhroms* neer the Red-ſea, which by the heat of the Sun are hardned into ſtones, then alſo it may follow very naturally, that thoſe ſtones may produce *Muſhroms* again, for both the diſſolution and the conſtitution of things are thought to be grounded upon the ſame principles. And thus much ſhall ſuffice for the urine of the Linx, and the ſtone made thereof.

Uſes of their ſeveral parts.
Eberus.

The skins of Linxes are moſt pretious, and uſed in the garments of the greateſt eſtates, both Lords, Kings and Emperors, as we have ſhewed before, and for that cauſe are ſold very dear. The claws of this Beaſt, eſpecially of the right foot, which he uſeth in ſtead of a hand, are encluded in ſilver, and ſold for Nobles a piece, and for Amulets to be worn againſt the falling ſickneſs. The love of theſe beaſts to their young ones is very great, like as the Pardals, Lions, and Tygers. The King of *Tartaria* hath tame Linxes which he uſeth in hunting, in ſtead of Dogs. The antient *Pagans* dedicated this Beaſt to *Bacchus*, feigning that when he triumphed in his chariot of Vine branches, he was drawn by Tygers, and Linxes. And therefore *Virgil* ſaith;

Linxes tamed.

Quid Lynces Bacchi variæ,———

And *Ovid*;

Dicta racemiſero Lyncas dedit India Baccho.

The medicines of the Linx.

All the nails of a Linx being burned with the skin, beaten into powder, and given in drink, will very much cohibite and reſtrain abominable Lechery in men: it will alſo reſtrain the luſt in women being ſprinkled upon them: and alſo very effectually and ſpeedily take away either itch or ſcurf in man or womans body. The urine of this Beaſt is accounted very medicinable for thoſe which are troubled with the Strangury, and running of the reins.

Pliny.

The ſame is alſo very good and wholeſome for the curing of any pain or grief in the winde-pipe or throat; *Bonarus Baro* doth a affirm that the nails of Linxes which are in their Countrey, are had in great eſtimation and price amongſt their Peers and Noble men: for there is a very certain opinion amongſt them, that thoſe nails being put upon the yard of either Horſe or Beaſt whoſe urine is kept back or reſtrained, will in very ſhort ſpace cauſe them to void it without any grief at all. He reporteth alſo that their nails do there wax white, and that they include them all in ſilver, and do commend them for an excellent remedy againſt the Cramp, if they be worn (peradventure becauſe they are bending and crooked) by which perſwaſion there are ſome ſuperſtitious men which hang certain roots which are crooked and knotty about them againſt the Cramp. There are ſome which do aſcertain that theſe nails are good and ready helps for the ſoreneſs of the Uvula which is in the Horſes mouthes: and for that cauſe there are many Horſemen which carry them continually about them.

Arnoldus.

The Linx or Wolf, which is begotten of a Wolf and a Hinde, the Musk-cat, the Weaſill and all ſuch other like Beaſts, do more hurt men by their biting teeth-wounds then by poiſon. There was a certain Hunter, as *Collinus* reporteth, which told him that the fleſh of a Linx being ſod in ſome hot pottage or broath, and afterwards eaten, would be a very good and wholeſome medicine for the expelling of the Ague, or Quartan Fever; and that the bones of the ſame Beaſt being burnt and pounded into powder, would be a very excellent remedy for the curing of wounds which are old and ſtale, and full of putrifaction, as alſo the Fiſtulaes which grow in the thighes or hips of men.

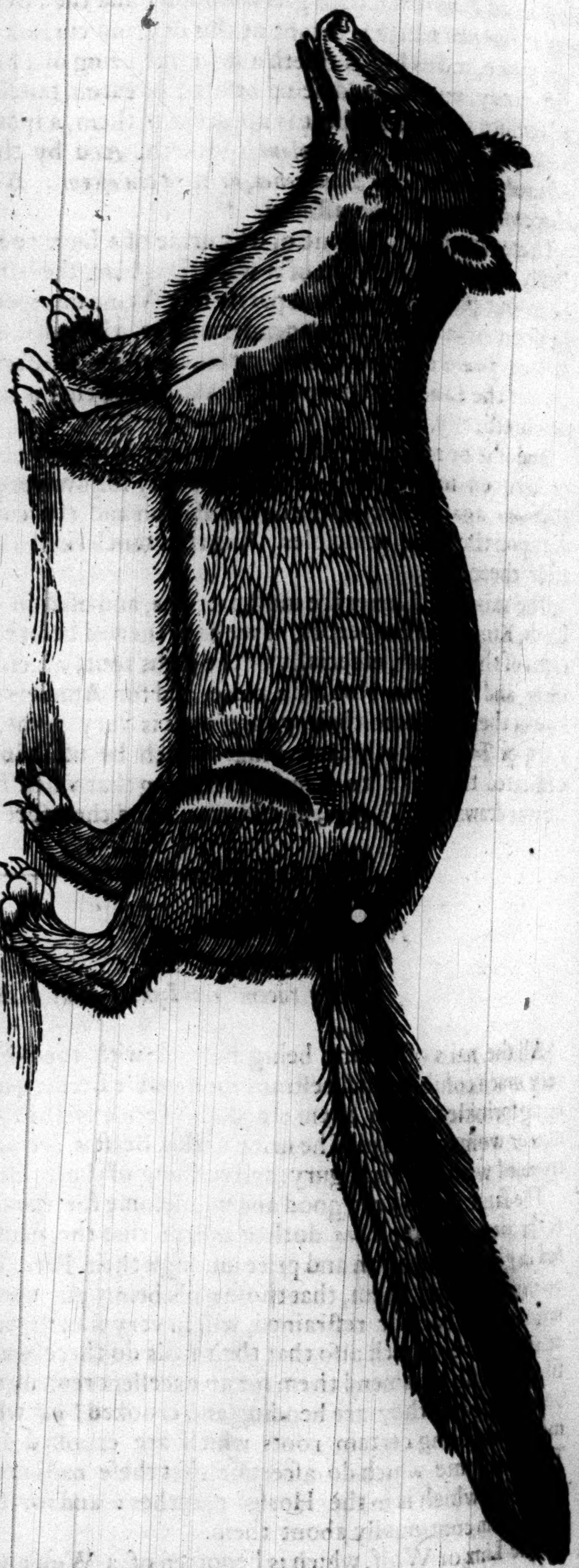
Of the *Marder*, *Martel*, or *Marten*.

The ſeveral names.

Two kindes of Martins.

Places of their abode.

THis beaſt is called in the *Hebrew*, *Oach*, or as ſome ſay *Ziim*; amongſt the *Arabians*, Eaſtoz, or rather *Kacheobeon*, or *Kachineon*; in *Latine*, *Martes*; the *Germans*, *Marder*, or *Marter*, like the *Engliſh*; the *Italians*, *Marta*, *Martore*, or *Martorello*; the *French*, *Mardre*, or *Foyne*; the *Spaniards*, *Marta*; the *Illyrians* and *Polonians*, *Kuna*; and ſome latter *Latines* uſe the words *Marta*, *Martarus*, *Marturus*, and *Marturellus*; and the reaſon, or etymology of this *Latine* word is taken from *Martia*, which ſignifieth *Martial*, becauſe this beaſt in warlike and hoſtile manner, deſtroyeth her adverſaries, and liveth upon the prey of Hens, Birds, and Mice. The *Germans* divide theſe into two kindes, which they call by the names of *Tachmarder*, *Huſſmarder*, *Steinmarder*, *Buechmarder*, *Feldmarder*, *Wildmarder*, *Thanmarder*, *Fiechtmarder*, that is to ſay, the Fir-martin, the Rock-martin, the Tame-martin, the Beech-martin, the Field-martin, the Wilde-martin, and the Wall-martin. For they live either in houſes, wals, and Temples, or elſe in rocks, fields, and woods: And yet is not their diſtinction taken only from the places of their aboad, but alſo from the goodneſs of their skins.



The uſe of thier skins, and how to chuſe the beſt.

Difference betwixt Foins and Martins.

And therefore the *French* call the word Martin by the name of *Foines*: And the skins of the Fir-martin, or Houſe-martin, are far more beautiful to look upon, then thoſe that live wilde in the trees or Woods. *Agricola* calleth the Wood-martin *Baummarder*, becauſe it liveth for the moſt part in trees, and ſaith that it never forſaketh the Woods, or very ſeldom, and therefore in that thing differeth from the Fir-martin. But herein he ſeemeth to be deceived, that he aſcribeth to the Beech-martin, a loamy or red throat, and alſo a continual abode among the Woods. For they come ſometimes to houſes, and to Rocks; for which, as we have ſaid already, it is called a Houſe-marder, and Rock-marder. And all theſe multitude of names, do but expreſs the two kindes afore-named, whereof the Fir-Martin is moſt excellent; for Princes and great Nobles are clothed therewith, every skin being worth a *French* crown, or four ſhillings at the leaſt. And they are ſo much the better, when there are more white hairs aſperſed among the yellow. For their ordinary colour is a deep brown yellow, and theſe that are clean white, are four times worſe then the former; and therefore are not ſold for above three or four groats a piece, howſoever the ſaying of *Martial*, *Venator capta Marte ſuperbus adeſt*. Here cometh the proud Hunter that hath killed a Martin, may very well be applyed unto them which take any of theſe beaſts, for they cannot chuſe but be very joyful, which get a good ſum of money for a little labour, as they have for a Martins skin. By inſpection of the *Foins*, that is, the Martins of the beech; for the *French* men called a Beech, *Fau*, from whence cometh the word *Foines*, you may ſee, that their skins are more duſky, having a tail both greater and blacker then the Martins of the Firs. And therefore you muſt underſtand, that they of the Firs are by way of excellency called Martins, and the other of the woods called *Foines*. There is no great difference betwixt their bigneſs: and if by their skins at any time there ſeem any inequality, in breadth, or length, it muſt be attributed to their age and difference of years, and not to any proportion in nature or diſtinction of kinde. And as we have ſaid that the Fir-Martins are abſolutely the beſt, yet that is not to be underſtood generally. For the Martins of *Polonia* are ſo brown, that they are altogether diſliked, and are accounted no better then the common Beech-Martins. Wherefore the bright-brown aſperſed with white hairs, is ever accounted more pretious without all exception, and by that colour upon the back of the skin, the skinner judgeth of the worth, and not by the yellowneſs of the throat.

Regions breeding Martins.

Of theſe Beech-Martins there are great plenty in the *Alpes*, eſpecially on the South-ſide, which look towards *Italy*, but very few of the Wal-martins. But on thoſe parts of the *Alpes* which look towards *Germany* and the *North*, there are aboundance of Fir-Martins with yellow throats, for you muſt remember that the wilde Martin hath a white throat, and the Fir-Martin a yellow throat.

Eraſ Stella.

There are alſo of both kinds in *Helvetia*, and the moſt excellent are in the vales towards the *Alpes*. In *France* there are no Martins of the wall, but the Beech-Martins live in hollow beeches. There are alſo woods full of the Beaſts in *Bruſſia*, which the people there call *Gayni*. *Lanzarucca* a wood of *Scandenavia* fourſcore miles long, is full of Martins. Alſo *Muſcovy*, and *Lituania* have ſtore of theſe Beaſts, and *Sabels*. But they of *Lituania*, are the whiteſt in the world.

Olaus Mag.

Jo Bohemus.

The people of *Sarmatia* in *Europe*, wear garments of theſe in Sables; and the inhabitants of *Scythia*, *Hungaria*, neer *Tanais*, do pay yearly unto the Emperor of *Ruſſia*, once called the Duke of *Muſcovia*, a certain number of *Sabels* and Martins skins. There are alſo ſtore of Martins neer *Braganſa*, and generally in all parts of *Europe* except in *England*.

Their quantity and ſeveral parts.

They are in quantity about the bigneſs of a Cat, having longer bodies, but ſhorter legs, with heads and tails like a Fox, their skins ordinarily brown, white on the throat, and more yellow on the back.

Their teeth are exceeding white, and unequal, one longer then another, being above meaſure ſharp, and the canine teeth both above and beneath hang out very long. Amongſt which on the neather chap, ſtand ſix ſmall cutting teeth in a right line over againſt one another, which I think happeneth not in any other Beaſt of the world. The grinding teeth are like a ſaw, being triangular in faſhion, eight above and eight beneath. Whereof the furthermoſt upon the uppermoſt ſide of the mouth, are more deep and inward in the palat, then all the reſidue, the whole number is thirty two. The long hairs upon their upward lip doe bend clean backwards.

Their copulation.

Notwithſtanding that there be two kindes of this Beaſt, as already we have ſaid, yet do the Wood-Martins, or Beech-Martins, greatly deſire copulation with the other, wherefore *Albertus* ſaith, *Miſcentur inter ſe hæc genera, & Martes phagi, fere ſequitur, Martem abietum, tanquam nobiliorem, ut fœtum ex ea nobiliorem acquirat*. The Beech-Martin followeth the Fir-Martin, and deſireth her copulation as the nobler kind, that he may thereby dignifie his own iſſue. It ſhould ſeem that they breed in *March*, and make their neſts like the draies of Squirrels, and bring forth many at a time; For it was conſtantly affirmed by a Countrey-man of *Germany*, that he found a neſt of theſe Martins builded like a Squirrels, having four young ones in it, in the beginning of *April*.

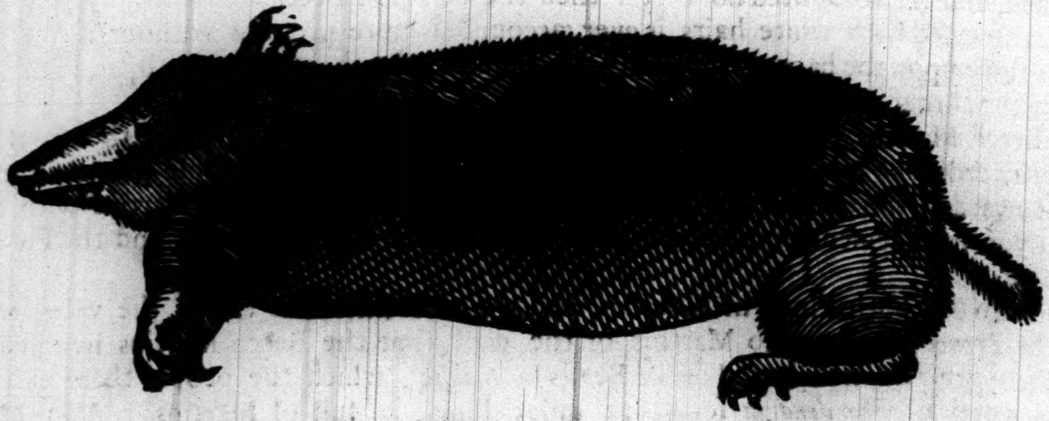
The taming of Martins.

If they be taken when they are young, both one and other kind grow wonderful tame and familiar with Men and Dogs. And *Geſner* had one of theſe, which loved a little Dog wonderfully, and would follow him abroad whitherſoever he went, far or neer. It would alſo play with Dogs and Men, with teeth and nails, lying flat upon the back like a Cat, and never give any little hurt. But looſened from his chain it would wander abroad into the neighbours houſes, and many times far off, but alwayes returne home again. They which tame them, becauſe that they are eaſily exaſperated, and bite deeply when they are angry, do break off the tops of their canine teeth, with a pair of pinſons for the preventing of that miſchief. *Radlius* affirmeth, that the excrement of this Beaſt ſmelleth like a Musk-cat, and ſaith the reaſon [illegible] is becauſe they feed upon ſweet fruits; but we have heard that they eat Pullen-birds, Egs, and Mice; but that they eat of fruits it cannot be proved. I rather attribute it unto their own nature. For as the Martin-ape ſmelleth ſweetly after her meat, ſo may this Martin-weaſel render a ſweet excrement. To conclude, the skins of theſe beaſts is applyed to gowty legs, and the white hairs of the throat made into a cap, is very ſoverain for the head-ach. They may be taken with Dogs, or in traps, but commonly they are taken in ditches or pitfals, according to this Verſe of *Calentius*, wherewithal I will conclude;

Their food,

Et laqueo vulpes, & decipe caſſe fuinas.

Of the MOLE or WANT.



The ſeveral names.

I Do utterly diſſent from all them that hold opinion that the Mole or Want is of the kind of Mice, for that all of them in general, both one and other, have two long crooked foreteeth which is not in Moles, and therefore wanting thoſe as the inſeparable propriety of kinde, we will take it for granted that it pertaineth not to that rank or order of four-footed Beaſts. But concerning the *Hebrew* name thereof, there is much variance, and little certainty amongſt writers. Some of them calling it *Tinſchemet*, which word is found Deut. 14. which is alſo tranſlated by the *Chaldees*, *Bote* or *Baveta*, a Swan, and the *Septuagints* and *Jerom*, *Ibis*, and *Rabbi Solomon* in another place of the ſame Chapter tranſlateth it a Bat, which the *French* call *Chaulve-ſouris*. But in that place of Levit. 11. where the *Stellio*, the *Lizard*, and *Tinſchemet*, are reckoned unclean Beaſts; *Rabbi Solomon* interprets it *Talpam*, the Mole. The *Septuagints*, *Aſpalax*; the *Caldee*, *Aſchuta*; the *Arabian*, *Lambarez*; the *Perſian*, *Angurbah-dedach*. There is a ſentence, Iſa. 2. in *Hebrew* thus, *Lachepor perot vehatalephim*: which by *Munſter* is thus tranſlated, *In die projiciet homo aureos & argenteos deos, in foſſuras talparum & veſpertilionum.* *In that day ſhall a man caſt away his goods of ſilver and gold into the holes of Moles and Bats.* By S. *Jerom* it is tranſlated thus, *Projiciet homo Idola, uſque ut adoraret talpas & veſpertiliones. A man ſhall caſt away his Idols to worſhip Moles and Bats.* Some again make but one word of *Lacheporperot*, and tranſlate it a Beaſt digging ditches; and the *Septuagints*, Idols or abominations, and think that they were ſo called, becauſe their outward forme repreſenteth ſome ſuch reptile creature, and *Symmachus*, unprofitable things; but *Aquila*, *Orugas*, digging Beaſts: and therefore at this day all the learned take *Perot* for Moles, ſo called by reaſon of their digging. *Avicen* calleth it *Pelagon*, a blinde Mouſe. In *Greek* it is called ſometimes *Spalax*, but more often *Aſpalax*: yet *Albertus* calleth it by a ſtrange *Grecian* name *Colti* and *Koky*, which he took from *Avicen*. The *Italians* retain the *Latin* word *Talpa*; the *Spaniards*, *Topo*, by which word the *Italians* at this day call a Mouſe. The *French* call it *Taulpe*; the *Germans*, *Mulwurff*, and in *Saxon*, *Molwurffe*, from whence is derived the *Engliſh* Mole, and Molewarp. The *Helvetians*, *Scher* and *Schærmouſe*, and the Molehil they call *Schærufen* of digging. The *Hollanders* and the *Flemmings* call it *Mol* and *Molmuis*, in imitation of the *German* word: the *Illyrians*, *Krtice*. And generally the name is taken from digging and turning up the earth with her noſe and back, according to the ſaying of *Virgil*;

Aut oculis capti fodere cubilia Talpæ.

Some are of opinion, that it is called *Talpa*, becauſe it is appointed to an everlaſting darkneſs in the earth; of which ſort *Iſidorus* writeth thus, *Talpa dicta eſt eo quod perpetua cæcitate tenebris damnata, eſt enim abſque oculis.*

It is called alſo in *Greek*, *Indouros*, and *Siphneus*, of *Siphnon* the earth, becauſe it liveth in the earth, and turneth it upward to make it hollow for paſſage. The like I might ſay of his other names, *Ixliocha*, and *Orthopenticos*; But this ſhall ſuffice for his name.

Countries of Moles.
Ariſtotle.
Ælianus.
Pliny.
Generation of Moles.

In *Bœotia* about the *Champaignes* called *Orchomenium ager*, there are the greateſt ſtore of Moles in the world: for by digging they undermine all the fields, and yet in *Lebadia* another Countrey of *Bœotia*, there are none at all, and if they be brought thither from any other place they will never dig but die. *Rodolphus*, *Oppianus*, and *Albertus* affirm, that they are created of themſelves of wet earth and rain water, for when the earth beginneth to putrifie, the Mole beginneth to take life.

They are all for the moſt part of a black duskie colour, with rough, ſhort and ſmooth ſoft hair as wooll, and thoſe hairs which were whiteſt when they are yong, are moſt gliſtering and perfect black when they are old: and *Geſner* affirmeth that he ſaw in the end of *October*, a Mole taken which was very white, mixed with a little red, and the red was moſt of all upon her belly, betwixt her foreleggs and the neck, and that it could not be a young one, becauſe it was two palms in length betwixt his head and tail.

Blindneſs of Moles.

Theſe Beaſts are all blinde and want eyes, and therefore came the proverb *Talpa cæcior, Tu bloteros aſpalacos*, blinder then a Mole; to ſignifie a man without all judgement, wit or foreſight; for it is moſt elegantly applyed to the minde. Yet if any man look earneſtly upon the places where they ſhould grow, he ſhall perceive a little paſſage, by drawing up the membrane or little skin which is black, and therefore *Ariſtotle* ſaith of them in this manner probably;

All kindes of Moles want their ſight, becauſe they have not their eyes open and naked as other Beaſts, but if a man pull up the skin of their browes about the place of their eyes, which is thick and ſhadoweth their ſight, he ſhall perceive in them inward covered eyes, for they have the black circle, and the apple which is contained therein, and another part of the white circle or skin, but not apparently eminent; neither indeed can they, becauſe nature at the time of generation is hindered, for from the brains there belong to the eyes two ſtrong nervie paſſages, which are ended at the upper teeth, and therefore their nature being hindered, it leaveth an imperfect work of ſight behinde her.

Yet there is in this Beaſt a plain and bald place of the skin where the eyes ſhould ſtand, having outwardly a little black ſpot like a Millet or Poppey-ſeed, faſtened to a nerve inwardly, by preſſing it, there followeth a black humor or moiſtneſs, and by diſſection of a Mole great with young, it is apparent (as hath been proved) that the young ones before birth have eyes, but after birth, living continually in the dark earth without light, they ceaſe to grow to any perfection; for indeed they need them not, becauſe being out of the earth they cannot live above an hour or two.

Albertus.

Eſop hath a pretty fable of the Aſſe, Ape, and Mole, each once complaining of others natural wants; the Aſſe, that he had no horns, and was therefore unarmed; the Ape, that he had no tail like other Beaſts of his ſtature and quantity, and therefore was unhandſome; to both which the Mole maketh anſwer, that they may well be ſilent, for that ſhe wanteth eyes, and ſo inſinuateth, that they which complain ſhall finde by conſideration and compariſon of their own wants to others, that they are happy and want nothing that were profitable for them.

Oppianus ſaith, that there was one *Phineus* which was firſt deprived of his eye-ſight, and afterward turned into a Mole: It ſhould ſeem he was condemned firſt to looſe his eyes, and afterward his life.

Their ſeveral parts and members.

Theſe Moles have no ears, and yet they hear in the earth more nimbly and perfectly then men can above the ſame, for at every ſtep or ſmall noiſe and almoſt breathing, they are terrified and run away, and therfore (*Pliny* ſaith) that they underſtand all ſpeeches ſpoken of themſelves, and they hear much better under the earth then being above and out of the earth. And for this cauſe they dig about their lodging long paſſages, which bringeth noiſes and voices to them, being ſpoken never ſo low and ſoftly, like as the voice of a man carryed in a trunk, reed or hollow thing.

Their ſnout is not like a Weaſils, as *Suidas* ſaith, but rather like a Shrew-mouſes, or (if it be lawful to compare ſmall with great) like to a Hogs. Their teeth are like a Shrews and a Dogs; like a Shrews in the neather teeth and furthermoſt inner teeth, which are ſharp pointed and low inwardly; and like a Dogs, becauſe they are longer at the ſides, although only upon the upper jaw, and therefore they are worthily called by the *Grecians*, *Marootatous*; that is dangerous biting teeth, for as in Swine the under teeth ſtand out above the upper, and in Elephants and Moles, the upper hang over the neather, for which cauſe they are called *Hyperphereis*.

The tongue is no greater then the ſpace or hollow in the neather chap, and they have in a manner as little voice as ſight, and yet I marvel how the proverb came of *Loquax Talpa*, a pratling Mole, in a popular reproach againſt wordy and talkative perſons, which *Ammianus* ſaith, was firſt of all applyed to one *Julianus Capella*, after he had ſo behaved himſelf, that he had loſt the good opinion of all men.

The neck ſeemeth to be nothing, it is ſo ſhort, ſtanding equall with the forelegs. The lights are nothing elſe but diſtinguiſhed and ſeparated *Fibres*, and hang not together upon any common root or beginning, and they are placed or ſeated with the heart, which they encloſe, much lower toward the belly then in any other Beaſt. Their gall is yellowiſh, their feet like a Bears, and ſhort legs, wherefore they move and run but ſlowly; their fingers or toes wherewithal they dig the earth, are armed with ſharp nails, and when ſhe feeleth any harm upon her back, preſently ſhe turneth upward and defendeth her ſelf with her ſnowt and feet: with her feet ſhe diggeth, and with her noſe caſteth away the earth, and therefore ſuch earth is called in *Germany*, *Mal werff*, and in *England*, *Mole-hill*: and ſhe loveth the fields, eſpecially meddowes and Gardens, where the ground is ſoft, for it is admirable with what celerity ſhe caſteth up the earth.

Cardanus.

They have five toes with claws upon each forefoot, and four upon each foot behind, according to *Albertus*, but by diligent inſpection you ſhall finde five behind alſo, for there is one very little and recurved backward, which a man ſlightly and negligently looking upon, would take to be nothing. The palm of the fore-feet is broad like a mans hand, and hath a hollow in it if it be put together like a fiſt, and the toes or fingers with the nails are greater then any other beaſts of that quantity. And to the end that he might be well armed to dig, the forepart of her fore-legs conſiſt of two ſolid and ſound bones which are faſtened to her ſhoulders, and her claws ſpread abroad, not bending downward, and this is peculiar to this Beaſt not competible to any other, but in her hinder legs both before and behind they are like a Mouſes, except in the part beneath the knee, which conſiſteth but of one bone which is alſo forked and twiſted. The tail is ſhort and hairy. And thus much for the Anatomy and ſeveral parts.

The places of their abode.

They live as we have ſaid in the earth, and therefore *Cardan* ſaith, that there is no creature which hath blood and breath that liveth ſo long together under the earth, and that the earth doth not hinder their expiration and inſpiration; for which cauſe they keep it hollow above them, that at no time they may want breath, although they do not heave in two or three dayes; but I rather believe when they heave, they do it more for meat then for breath, for by digging and removing the earth they take Wormes, and hunt after victuals.

When the Wormes are followed by Moles, (for by digging and heaving, they foreknow their own perdition) they flie to the ſuperficies and very top of the earth, the ſilly beaſt knowing that the Mole their adverſary, dare not follow them into the light, ſo that their wit in flying their enemy is greater, then in turning again when they are troad upon. They love alſo to eat Toads and Frogs, for ***Albertus*** ſaith, he ſaw a great Toad whoſe leg a Mole held faſt in the earth, and that the Toad made an exceeding great noiſe, crying out for her life, during the time that the Mole did bite her. And therefore Toads and Frogs do eat dead Moles. They eat alſo the root of Herbs and Plants, for which cauſe they are called by ***Oppianus***, ***Poiophagi Herbivora***, herb-eaters.

Enemies to Moles.

In the month of *July* they come abroad out of the earth, I think to ſeek meat at that time when wormes be ſcanty. They are hunted by Weaſils, and wilde Cats, for they will follow them into their holes and take them, but the Cats do not eat them: whereas we have ſaid already, that they have an underſtanding of mens ſpeech when they hear them talk of them;

Underſtanding of Moles.

I may add thereunto a ſtory of their underſtanding, thus related by *Gillius* in his own experience and knowledge. When I had (ſaith he) put down into the earth an earthen pot made of purpoſe with a narrow mouth to take Moles, it fortuned that within ſhort ſpace as a blind Mole came along ſhe fell into it and could not get forth again, but lay therein whining; one of her fellowes which followed her ſeeing his mate taken, heaved up the earth above the pot, and with her noſe caſt in ſo much, till ſhe had raiſed up her companion to the brim and was ready to come forth: by which in that blind creature confined to darkneſs, doth not only appear a wonderful work of Almighty God, that endoweth them with skill to defend, and wiſely to provide for their own ſafety, but alſo planted in them ſuch a natural and mutual love one to another, which is ſo much the more admirable, conſidering their beginning or creation as we have ſhewed already. Becauſe by their continual hearing and laboring for meat, they do much harm to Gardens and other places of their aboad, and therefore in the husband-mans and houſe-wifes common-wealth, it is an acceptable labor to take and deſtroy them. For which cauſe it is good to obſerve their paſſages, and mark the times of their coming to labor, which being perceived, they are eaſily turned out of the earth with a ſpade, and this was the firſt and moſt common way.

Taking of Moles.

Some have placed a board full of pikes which they faſten upon a ſmall ſtick in the mole hil or paſſage, and when the mole cometh to heave up the earth, by touching the ſtick ſhe bringeth down the pikes and ſharp nailed boards upon her own body and back. Other take a Wyar of Iron, and make it to have a very ſharp point, which being faſtened to a ſtaffe and put into the earth where the Moles paſſage is, they bend and ſo ſet up, that when the Mole cometh along, the pike runneth into her and killeth her.

The *Grecians* (ſaith ***Palladius***) did deſtroy and drive away their Moles by this invention, they took a great Nut, or any other kind of fruit of that quantity, receipt and ſolidity, wherein they included Chaffe, Brimſtone and Wax; then did they ſtop all the breathing places of the Moles, except one at the mouth, wherein they ſet this deviſe on fire, ſo as the ſmoak was driven inward, wherewithal they filled the hole and the place of their walks, and ſo ſtopping it, the moles were either killed or driven away.

Paramus.

Alſo *Paramus* ſheweth another means to drive away and take Moles: If you take white Hellebor, and the rindes of wilde Mercury in ſtead of Hemlock, and dry them and beat them to powder, afterward ſift them and mix them with meal and with milk beaten with the white of an Egge, and ſo make it into little morſels or bals, and lay them in the Mole-hole and paſſages, it will kill them if they eat thereof, as they will certainly do.

Many uſe to kill both Moles and Emmets with the froath of new Oyl. And to conclude, by ſetting an earthen pot in the earth and Brimſtone burning therein, it will certainly drive them for ever from that place. Unto which I may add a ſuperſtitious conceit of an obſcure Author, who writeth, that if you whet a mowing ſythe in a field or meddow upon the feaſt day of Chriſts Nativity (commonly called Chriſtmas day) all the Moles that are within the hearing thereof, will certainly for ever forſake that field, meddow or Garden.

Uſe of their ſeveral parts.

With the skins of Moles are purſes made, for the rough and ſoft hair, and alſo black ruſſet colour is very delectable. *Pliny* hath a ſtrange ſaying, which is this; ***Ex pellibus talparum cubicularia vidimus ſtragula; adeo ne religio quidem a portentis ſummovet delicias***; that is, We have ſeen the hanging of Chambers made of mole skins, ſo that no conſcience of religion cannot avert the monſtrous love of delights from the affectation of men.

For all the ancient Wiſe-men and Magicians did hold, that this beaſt was capeable of Religion, ***Nullis æque credunt extis, nullum Religionis capacius judicant animal, ut ſi quis cor ejus recens palpitans devorarit, divinationis & rerum efficiendarum eventus promittat***; they give not ſo much credit to any intrails as to theirs; for they judge that no beaſt is ſo capable of Religion, becauſe if a man eat the heart of a Mole newly taken out of her belly and panting, he ſhall be able to divine and foretel infallible events. Another ſaith, *Veteribus monumentis traditur Gallinaceorum fibras maximè diis gratas videri: ſicut Talparum viſcera Magi veriſſima dicunt, illiſq; haud ſecus quam ſolenni victima litari, hæc enim ſunt exta argutiſſima, in quibus divina mens ineſſe creditur*: that is, the fibres of Cocks were wont among ancient Monuments to be accounted moſt acceptable to the Gods, even as the bowels of Moles (as the wiſe men ſay) and to offer theſe as a moſt ſolemn ſacrifice grateful to the Gods, and that in thoſe intrails it was believed that the minde and pleaſure of God was ſeated and engraven; and a little after he ſaith, that the bowels of Moles and frogs do foretel many great and fortunate events. *Alex. ab Al.*

But I will leave this paganiſm, and let it never enter into the heart of a reaſonable man, that ſuch beaſts can love Religion, or that God hath planted in their bowels and corrupt parts, ſuch letters of his wiſdom and fore-knowledge, which he hath not granted to the immortal and incorruptible ſoul of man. Only this I finde by experience, that before any rain and change of weather, theſe ſilly beaſts heave up the earth more abundantly then at other times; and that in *Theſſaly* (as *Varro* ſaith) a whole Town was once undermined by Moles. They were wont to ſacrifice this beaſt to *Neptune*, becauſe of the affinity betwixt their names, for in *Greek Aſphaloos*, ſignifieth *Neptune*, and *Aſphalax*, a Mole. *Aiunnus* alſo writeth, that they were ſacred and dedicated to Hell, becauſe they kept continually within the boſom and bowels of the earth; and to conclude, becauſe that Moles would not live in *Coronea* a part of *Bœotia*, before ſpoken of, and thereof came the common proverb, *Aſphalaca eis Coronean*, a Mole is brought to *Coronea*, to ſignifie the hatred of a gift or gheſt to him that is forced to receive him. Thus much for his natural and moral ſtory; now followeth his medicinal.

The Medicines of the Mole.

There is nothing which is more profitable or medicinable for the curing of the bites of a Shrew, then a Mole being flead and clapped thereunto. The ſame doth alſo very effectually cure and heal the blows or bitings of a Scorpion. *Pliny.* Pills being made with that which proceedeth from Moles with Hony, eaten nine days together, doth preſerve the body of any one from ſwellings or bunches in the fleſh, who ſhall ſo eat them. For the avoiding or driving away the hairs which grow in any part of mans body, that they may never return or be renewed again; *Arnoldus.* Take a Mole and lay her in water to be ſteeped or ſoaked, ſo long as ſhe ſhall not have any hairs left upon her, with this water anoint the place which is full of hairs, and afterwards waſh it with lie made of aſhes, and then rub it with a linnen cloth; then if you ſhall ſee the hairs to return again, waſh it twice or thrice in the aforeſaid manner, and they will be quite expelled away, and by no means can be made either to renew or come again. For the renewing, and bringing again of thoſe hairs which are fallen or decayed, *Furnerius.* take a Mole, and burn her whole in the skin, and mingle the duſt or powder which cometh from the ſame with Hony unto the thickneſs or faſhion of an Ointment, and this being rubbed or anointed upon the bare or bald place will without doubt in ſome ſhort time or ſpace procure the hair to grow thick. For the renewing of hairs which fall from Horſes; *Ruſſus.* Take a Mole and boil her in Oyl, until all the fleſh be conſumed and quite diſſolved into a liquid juyce, with this Oyl anoint the place which is bare or deſtitute of hairs twice every day for ſome ſhort ſpace, and it will make the hairs to grow in great abundance.

For the changing of the hairs of Horſes from black to white, take a Mole and boil her in Salt water, or lye made of aſhes three days together, and when the water or lie ſhall be quite conſumed, put new water or lie thereunto: this being done, waſh or bathe the place with the water or lie ſomewhat hot; preſently the black hairs will fall and ſlide away, and in ſome ſhort time there will come white. Whoſoever ſhall take a Mole and hold her in his right hand until ſhe die, ſhall have ſuch an excellent vertue therein, that ſhe ſhall eaſe the pain of a womans breaſts only by touching them.

The duſt of a Mole being burnt, mingled with the white of an Egge, and anointed upon a Sheep, is an excellent and medicinable remedy againſt the Leprie, which cometh oftentimes upon them. *Pliny.* The duſt of a Mole mixed with Oyl or Hony, and anointed upon the skin of either man or woman which is full of Lepry, will very ſpeedily and effectually cure and heal the ſame. The ſame being uſed in the aforeſaid manner, is very good for the curing of thoſe which are troubled with the diſeaſe called the Kings Evil, as alſo for thoſe which have hard bunches or kernels ariſing in their arm-holes, and in other parts of their body. *Marcellus.*

The whole body of a mole being taken and burned in the skin into dry duſt, or powder, is an excellent remedy againſt the diſeaſe called the Fiſtula, as alſo for the purging of the corruption in them and healing of them, being once taken by any man. The ſame being alſo mixed with Hony, and rub'd upon the teeth of any one who hath pain in them, doth not only eaſe the pain and grief thereof, but alſo doth ſtrengthen and make them faſt. *Vincentius.* The bloud of a Mole being killed, ſpread or anointed upon the head of any one which is bald, will very ſpeedily renew and bring the hairs again. The head of a mole being cut off and beaten together with the earth which is ſtirred up by Moles, and wrought into a paſte, and rowled together like a little loaf, is very much uſed for the healing of all ſwellings, and for thoſe things which they call Impoſtumes; as alſo for all ſwellings or kernels *Sextus.*

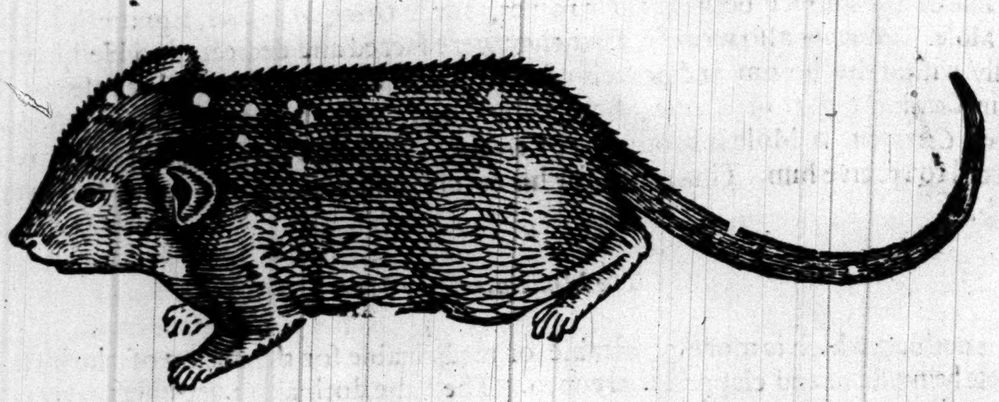
which ariſe in the neck; ſo that in the time of the curing of theſe things, the party which is pained and grieved, be not ſuffered to eat any Swines fleſh.

Obſcurvi.

Pliny.
Arnoldus.

The tooth of a living Mole taken out and tyed or bound to the teeth of any who is grieved therein, is commended by the *Magi*, or Wiſe-men to be an excellent remedy and cure for the ſame. The heart of a Mole being eaten nine days together, doth very ſpeedily and effectually cure either him or her which ſhall ſo eat it, of that peſtiferous diſeaſe call'd the Kings Evil, if it be ſo that it hath not been of too long continuance with them. The ſame is alſo very good and profitable for the aſſwaging of Wens, being uſed in the aforeſaid manner. The liver of a Mole being beaten between the hands of him that is troubled with bunches or ſwellings in his back, and afterwards put upon the ſame, is a preſent help and cure. The ſame effect hath the right foot of a Mole for the aſſwaging of bunches and ſwellings ariſing in the fleſh.

Of the vulgar little MOUSE.



Definition of a Mouſe.

The ſeveral names.

AS we have handled the natures, and delivered the figures of the great beaſts, ſo alſo muſt we not diſdain in a perfect Hiſtory to touch the ſmalleſt: For Almighty God which hath made them all, hath diſſeminated in every kinde both of great and ſmall beaſts, ſeeds of his Wiſdom, Majeſty, and glory. The little Mouſe therefore is juſtly tearmed, *Incola domus noſtræ*, an inhabitant in our own houſes, *Et roſor omnium rerum*, and a gnawer of all things. And therefore from the ſound of her teeth which ſhe maketh in gnawing, ſhe is called *Sorex*. Although we ſhall ſhew you afterwards, that *Sorex* is a ſpecial kinde, and not the name of the general. Wherefore ſeeing there be many kindes of Miſe, and every one of them deſireth a particular tractate, I thought good to begin with the Vulgar little Mouſe, and ſo to deſcend to the ſeveral ſpecies and kindes of all, according to the method of the Philoſopher, *A notioribus ad minus nota*, from things that are moſt known to them that are leſs known. In *Hebrew* it is called *Achar*, Levit. 11. where the *Septuagints* tranſlate it *Muys*; the *Chaldee*, *Acbera*; the *Arabians*, *Fer*, or *Phar*; from whence cometh the *Saracen* word *Fara*. The *Perſians*, *An Mus*; the *Latines*, *Mus*; the *Italians*, *Topo*, or *Sorice*, *Alſorgio*, *O Rato*, *Di caſa*, although *Rato* ſignifieth a Rat, both among the *Germans*, *French*, and *Engliſh*. The Spaniards cal the little Mouſe, *Ratt*; and the great Rat, *Ratz*; the *French* the little Mouſe, *Souris*; which word ſeems to be derived from the *Latine*, *Sorex*, and the great Mouſe they call *Ratt*. The *Germans* the great ones *Ratz*, and the little one *Muſs*; the *Illyrians* and *Poloniaus*, *Myſs*, which is the *Greek* word; and the great one they call *Sczurcz*; the *Venetians* call the Rat *Pantegana*, of *Pontis* the vulgar *Greek* name, and the *Romans*, *Sourco*.

Denomination of ſundry creatures from the Mouſe.

Now the dignity of this little beaſt, may appear by the name, which hath ſpread it ſelf both to beaſts, fiſhes, men, herbs, and Cities. To beaſts as we have ſhewed before in the Ichneumon, which is vulgarly called the *Indian* Mouſe, or *Pharaobs* Mouſe. And to fiſhes, for there is a little fiſh called *Muſculus*, and in *Greek*, *Myſtocetos*, the Whale-mouſe, becauſe it leadeth the way, and ſheweth the Whale whither ſoever ſhe ſwimmeth, for the avoiding of Rocks, (according to *Pliny*) although *Rondoletius* affirmeth otherwiſe, namely, that that guide of the Whale is called *Egemon*, and *Egetur*, and *Myſtocetus* (he ſaith) is a ſhell-fiſh. Generally moſt kinde of Oyſters are alſo called *Myſs*, becauſe ſometimes they gape and make a noiſe like a Mouſe, and cloſe their ſhels again. The purple fiſhes be alſo called *Myſs*; there is likewiſe a kinde of pretious ſtone called *Mya*, about *Boſphorus Thracius*, and many other ſuch dignities, hath the the name of this beaſt attained.

Pauſanias.

There was one *Mys*, the ſervant of that famous Philoſopher *Epicurus*; likewiſe the name of a Champion or Challenger, in *Suidas* and *Varinus*, and there was another called *Mus*, of excelcellent skill for ingraving in Silver, and therefore did draw upon the ſhield of *Minerva*, the fight betwixt the *Lapithæ*, and the *Centaurs*, and many other things. Whereupon *Martial* made this verſe;

Quis labor in Phiala? docti Myos? anne Myronis?

There was a Conſul of *Rome*, whoſe name was *Mus*, and therefore *Camerarius* made this Riddle of the Mouſe; *Parva mihi domus eſt, ſed janua ſemper aperta. Acciduo ſumptu, furtiva vivo ſagina, Quod mihi nomen ineſt, Roma quoq; Conſul habebat.* The *Thracians* call'd *Argilus* a Mouſe, and the City which he builded *Argelus*. *Myes* was a City of *Ionia*, and a Citizen of that City was called *Myetus*. *Myon* a City of *Locri* in *Epirus*, and the people thereof are called *Myones*. *Myon-ſus*, a little Region betwixt *Teon* and *Lebedon*, and according to *Stephanus*, an Iſland near *Epheſus*; the firſt Port or Haven of *Egypt*, opening to the Red Sea, is called *Muos armos*, the Mouſes haven, and *Myſia* alſo ſeemeth to be derived from their ſtem. There is an Iſland under the Equinoctial line, called *Inſula Murium*, the Mouſe Iſland, becauſe of the abundance of Mice therein: and to conclude, even the herbs and plants of the earth, have received names from this little beaſt, as *Hordeum, Murinum Myacantha, Sperage, Myopteron, Myuoos, Myortocon*, Mouſe-ear, Mouſe-foot, and ſuch like. There have been alſo Comedies made of *Myſs*, as that of *Carſinus*, called *Myes*, wherein the Weaſil ſtrangleth the night-wandering *Myſs*. And another *Greek*, called *Galeomyomachia*, that is a fight betwixt Cats and Mice; wherein the Poet doth moſt pleaſantly faign names of Mice, as their King he calleth *Creillus*, that is, a fleſh-eater, and his eldeſt ſon *Pſicarpax*, a corn-eater; and his ſecond ſon *Pſitodarpes*, bread-eater, and his eldeſt daughter, *Lycnogluphe*, candle-eater; and all his Anceſtors *Carpodaptai*, that is, fruit-eaters. And then he bringeth other Mice in, as *Turolicos, Pſicolices, Cholecoclephos Homer* in his *Batrachomyomachia*, that is, a fight betwixt Frogs and Mice, doth very elegantly deſcribe divers proper names of Mice. As *Piſcarpax*, whoſe father was *Tuoxartes*, and his mother *Lychomile*, daughter of *Pternotrocta* the King, and then other Mice, as *Lychopinax, Terogliphus, Embaſchitrus, Lychenor, Troglodites, Artophagus, Pternogliphus, Pternophagus, Cniſſodioctes, Sitophagus, Artophilus, Meridarpax*, and *Thulacotrox*, all which are not only out of the abundance of the Authors wit, but invented for the expreſſing of the Mouſes nature.

Theucius.

Fictions learned and witty of the proper names of Mice.

The Epithets of Mice are theſe; ſhort, ſmall, fearful, peaceable, ridiculous, ruſtick, or Country Mouſe, urbane, or City Mouſe, greedy, wary, unhappy, harmful, black, obſcene, little, whiner, biter, and earthly. And the *Greek* ones are expreſſed before in the proper names, and thus much may ſuffice for the names of Mice. Now to come to their ſeveral nature and ſignifications. Firſt of all concerning their colour. It is divers, for although *Color murinus* be a common tearm for a Mouſe colour of Aſſes, yet notwithſtanding Mice are ſometimes blackiſh, ſometimes white, ſometimes yellow, ſometimes brown, and ſometime aſh colour. There are white Mice among the people of *Savoy*, and *Dauphin* in *France* called *Allobroges*, which the Inhabitants of the Countrey do believe that they feed upon ſnow. But the white Mouſe is above all other moſt laſcivious and leacherous, and therefore it came into a proverb, *Mys Leucos, Mys Cacos*, the white Mouſe is an ill Mouſe, of whoſe luſt *Alciatus* made this Emblem;

The colour of Mice.

Scaliger.
Albertus.

The quantity and ſeveral parts of Mice.
Mathaolus.

Delitias & mollitiem, Mus creditur albus,
Arguere; at ratio non ſat aperta mihi eſt.
An quod ei natura ſalax, & multa libido eſt?

Ornat Romanas an quia pelle nurus?
Sarmaticum Murem vocitant pleriq; zibellum,
Et celebris ſuavi eſt unguine Muſcus Arabs.

Ariſtotle.
Cicero.

Of all which conjectures of the Poets, the firſt is moſt probable; for the Ancients were wont to call wanton and effeminate men *Pygargoi*, and *Leucopygoi*, from their beauty and whiteneſs. And as there is a difference in their colours, ſo alſo there is in their quantity: For ſome are very great, ſome meanly great, and ſome very ſmall. Their heart is very great, and their liver and lights increaſe in the Winter time. Alſo the fibres that are in them, do increaſe and decreaſe with the waxing and waning of the Moon. For every day of the Moons age, there is a fibre increaſed in their liver. And therefore *Lucilius* ſaid well, *Luna alit oſtrea, & implet echinos, & Muribus fibras auget*: that is to ſay, The Moon feedeth Oyſters, filleth Hedgehogs, and encreaſeth fibres in Mice. Some of theſe Mice have a gall, and ſome have none, as *Ariſtotle* and *Pliny* ſhew in many places.

The Mouſes place of conception have many holes in it, during the time ſhe beareth her young ones. There is no creature that heareth more perfectly then a Mouſe, they dwell in houſes of men, eſpecially near ſupping and dining rooms, kitchins, or larders, where any meat is ſtirring. And they make themſelves places of abode by gnawing with their teeth, if they finde not convenient lodgings prepared to their hand, and they love the hollow places of wals, or the roofs of houſes; and therefore the Waſps which in *Ariſtophanes* are called *Dropbæ*, that is gnawers of roofs, are to be underſtood to be Mice, becauſe *Mys Drophia* is a Mouſe in the houſe top. In the day time they lie ſtill, ſo long as they either ſee or hear a man, or any other beaſt harmful unto them, for they diſcern their enemies; not fearing an Ox, though they run away from a Cat.

Albertus.
Orus.
Ælianus.

They are very deſirous of bread, and delight in all thoſe meats which are made of fruit, for the nouriſhment of men. It is a creature very diligent and exquiſite, both to compaſs, ſeek out and chuſe the ſame, ſo that therefore it doth often endanger and loſe his own life: and finding any cubboards, wood, or ſuch like hard matter, to withſtand his purpoſe, and hinder his paſſage, it ceaſeth not to weary it ſelf with gnawing, until it obtain the purpoſe. All kindes of Mice love grain and corn, and prefer the hard before the ſoft; they love alſo Cheeſe, and if they come to many Cheeſes together, they taſt all, but they eat of the beſt. And therefore the *Egyptians* in their Hieroglyphicks do picture a Mouſe, to ſignifie a ſound judgement and good choice. Buckmaſt is very acceptable to Mice, and the Mice in the Iſle *Parus*, in *Tenedos*, in the Iſland *Gyaros*, which is one of the Iſlands of the *Sporads* in *Cyprus*, and in *Chalcis*, they did eat Iron, as appeareth by *Ariſtotle*, *Ælianus*, and *Heraclides*. And it was alſo found, that in a certain Iſland near *Chalybes*, Mice eat and devour gold, and therefore the Gold-ſmiths did cut them in pieces among their metals. *Plutarch*, in the life of *Marcellus* ſaith, that there were many prodigies and fearful ſignes that did precede the war of *Marius*, amongſt other, he ſaith that Mice did eat the Gold hanging in the Temple, and that one of the Temple-keepers in a certain trap took a female Mouſe alive, who littered five little Mice in that place, and devoured three of them. *Anthologius* rehearſeth a witty Hexaſtichon of *Antiphilus*, upon a Mouſe which was ſlit aſunder alive, for certain Gold-duſt, which ſhe had devoured, whereby was ſignified how men procure unto themſelves exquiſite torments, and unavoidable mortal harms by ſtealing, and increaſing of riches ſignified by Gold. Vulgar Mice do ruminate or chew the cud as well as the Pontick, and they drink by licking or lapping, although their teeth be not ſawed. It is reported that the Mice of *Africk*, and eſpecially of *Lybia*, die aſſoon as they drink. And the reaſon thereof we will ſhew afterwards in the taking of Mice, when we come to diſcourſe of their poyſons. And for the preſent it ſhould ſeem their temperament, or conſtitution is ſo moiſt, that nature can endure no addition. Yet in the plains of *Arcadia*, there are Mice which drink of a certain Fountain without any harm.

Pliny.
Albertus.
Mice cannot drink without danger.

Theophraſtus.
Generation of Mice, and their carnal copulation.

The generation and procreation of Mice, is not only by copulation, but alſo nature worketh wonderfully in ingendering them by earth and ſmall ſhowers, as we will ſhew in the diſcourſe of wilde Mice.

But the houſe Mouſe whereof we now intreat, is engendered by copulation betwixt male and female, and they are in general moſt libidinous, as may appear by that ſaying of *Cratinus* againſt *Xenophon*, *Phere nun ex aithrias Katapupoſunen muos aſtrapſo Xenophontos*, go to now, for from the skies I will ſtrike by lightning the *Murin* wantonneſs of *Xenophon*: and the female is much more venereous then the male, as appeareth by that fable of *Ipicrates* deſcribing the rage of a luſtful woman. *Poſtremo ſubiit me deteſtabilis lena, dejerans per Dianam, per puellam, per Perſephattam, ſe eſſe vitulam, eſſe virginem, eſſe pullam indomitam, at illa myonia erat.* Then followed me that deteſtable baud, ſwearing by *Diana*, and *Perſephatta*, that ſhe was a Heifer never touched, a Virgin never ſtained, and a Colt never covered, but the truth is, ſhe was as good a Maid as a Mouſe. *Politianus* in ſtead of *at illa myonia erat*, hath *at illa cavus erat Murinus*, that ſhe was a Mouſes hole, ſignifying that her virginity was loſt, and that ſhe ſuffered any lovers, as a Mouſe-hole doth any Mice. And from hence came that verſe of *Martial*, deſcribing the ſpeech of a lover to his love, calling him her Mouſe and her Joy;

Nam cum me Murem tu, cum mea lumina dicis.

Albertus.
Copulation of Mice.

So that in general all Mice, and not only the white Mouſe, are moſt deſirous of copulation. And when they are in copulation, they embrace with their tails, filling one another without all delay. By taſting of Salt, they are made very fruitful, and therefore *Ariſtotle*, and the Souldiers of *Alexander* the Great, do report, that Mice by licking one another, and by the licking of Salt, do ingender & conceive with young without any other copulation. But what reaſons they have to lead them to that opinion, I know not; beſide that wonder reported by *Pliny* and *Ariſtotle*, that in a certain part of *Perſia*, a female Mouſe being ſlit aſunder alive, all the young females within her belly are alſo found pregnant conceived with young.

Two miracles in their procreation and multiplication.

It is very certain, that for the time they go with young, and for the number they bring forth, they exceed all other beaſts, conceiving every fourteen or ſixteen days, ſo that it hath been found by good experience, that a female Mouſe having free liberty to litter in a veſſel of millet-ſeed, within leſs compaſs then half a year ſhe hath brought forth one hundred and twenty young ones.

Volaterranus.
Gillius.
Whether Mice be docible.

They live very long, if they be not prevented of their natural courſe, and dying naturally, they periſh not all at once, but by little, and little, firſt one member, and then another, (*Pliny* ſaith) *E volucribus hirundines ſunt indociles, è terreſtribus Mures*, among the Fowls of the air, the Swallows are undocible, and among the creatures of the earth, a Mouſe; as *Albertus* writeth, that he ſaw in upper *Germany*, a Mouſe hold a burning Candle in her feet, at the commandment of her Maſter all the time his gueſts were at Supper.

Now the only cauſe why they grow not tame, is, their natural fear, ſuch as is in Conies, Hares, and Deer. For how can any man or beaſt love or hearken unto him, who they are perſwaded lyeth in wait for their life, and ſuch is the perſwaſion of all them that fear, which perſwaſion being once removed by continual familiarity, there is no cauſe in nature, but that a Mouſe may be docible as well as a Hare or Cony, which we have ſhewed heretofore in their ſtories.

Preſages and fore-knowledg of Mice.

It is alſo very certain that Mice which live in a Houſe, if they perceive by the age of it, it be ready to fall down or ſubject to any other ruin, they foreknow it and depart out of it, as may appear by this notable ſtory which happened in a Town called *Helice* in *Greece*, wherein the Inhabitants committed this abominable act againſt their neighbours the *Greeks*. For they ſlew them, and ſacrificed them upon their Altars; Whereupon followed the ruine of the City, which was premonſtrated by this prodigious event. For five days before the deſtruction thereof, all the Mice, Weeſils, and Serpents, and other reptile creatures, went out of the ſame in the preſence of the Inhabitants, every one aſſembling to his own rank and company, whereat the people wondered much, for they could not conceive any true cauſe of their departure; and no marvail. For God which had appointed to take vengeance on them for their wickedneſs, did not give them ſo much knowledge, nor make them ſo wiſe as the beaſts to avoid his judgement, and their own deſtruction; and therefore mark what followed. For theſe beaſts were no ſooner out of the City, but ſuddenly in the night time, came ſuch a lamentable Earth-quake and ſtrong tempeſt, that all the houſes did not only fall down, and not one of them ſtood upright, to the ſlaughter of men, women, and children, contained in them; but leſt any of them ſhould eſcape the ſtrokes of the timber and houſe tops, God ſent alſo ſuch a great floud of waters, by reaſon of the tempeſtuous winde which drove the waters out of the Sea upon the Town, that ſwept them all away, leaving no more behinde then naked and bare ſignifications of former buildings. And not only the City and Citizens periſhed, but alſo there was ten ſhips of the *Lacedemonians* in their port all drowned at that inſtant.

Ælianus.

The wiſdom of the Mouſe appeareth in the preparation of her houſe; for conſidering ſhe hath many enemies, and therefore many means to be hunted from place to place, ſhe committeth not her ſelf to one lodging alone, but provideth many holes; ſo that when ſhe is hunted in one place ſhe may more ſafely repoſe her ſelf in another. Which thing *Plautus* expreſſeth in theſe words; *Sed tamen cogitato, Mus puſillus, quam ſapiens ſit beſtia, ætatem qui uni cubili nunquam committit ſuam: cum unum obſidetur, aliunde perfugium quærit*: that is to ſay, it is good to conſider the little Mouſe, how wiſe a beaſt ſhe is, for ſhe will not commit her life to one lodging, but provideth many harbors, that being moleſted in one place ſhe may have another refuge to flie unto.

Their natural wiſdom.

And as their wiſdom is admirable in this proviſion, ſo alſo is their love to be commended one to another, for falling into a veſſel of water or other deep thing, out of which they cannot aſcend again of themſelves, they help one another, by letting down their tails, and if their tails be too ſhort, then they lengthen them by this means: they take one anothers tail in their mouth, and ſo hang two or three in length, until the Mouſe which was fallen down take hold on the neathermoſt, which being performed, they all of them draw her out. Even ſo Wolves holding one another by their tails, do ſwim over great Rivers: and thus hath nature granted that to them which is denyed to many men, namely, to love, and to be wiſe together. But concerning their manners, they are evil, apt to ſteal, inſidious, and deceitful; and men alſo which are of the ſame diſpoſition with theſe beaſts, fearing to do any thing publickly, and yet privately enterpriſe many deceits, are juſtly reproved in imitation of ſuch beaſts. For this cauſe was it forbidden in Gods Law unto the *Jews*, not only to eat, but to touch Mice, and the Prophet Eſai. ch. 66. ſaith, *Comedentes carnem ſuillam, & abominationem, atq; murem, ſimul conſumentur, inquit Dominus*, that is, they which eat Swines fleſh, abomination, and the Mouſe, ſhall be deſtroyed together, ſaith the Lord: wherein the Prophet threatneth a curſe unto the people, that broke the firſt Law of God in eating fleſh forbidden; and the Phyſitians alſo ſay, that the eating of the fleſh of Mice engendereth forgetfulneſs, abomination, and corruption in the ſtomach.

Their natural love to one another.

Ælianus.

Their diſpoſition, and their fleſh.

Procopius.

Ariſteas.

Arnoldus.

The eating of bread or other meat which is bitten by Mice, doth encreaſe in men and children a certain diſeaſe in their face, and in the fleſh, at the roots of the nails of their fingers certain hard bunches, called by the *Venetians*, *Spelli*; and by the *Germans*, *Leidſpyſſen*; and by the *Latines*, *Dentes Muris*: yet it is affirmed, that the fleſh of Mice is good for Hawks, to by given them every day, or every each other day together with the skin; for it helpeth their intrails, purgeth fleam and choler; reſtraineth the fluxions of the belly; driveth out ſtones and gravel; ſtayeth the diſtillation of the head to the eyes; and finally corroborateth the ſtomach. Yet we have heard that in the Kingdom of *Calecut*, they do eat Mice and Fiſhes roaſted in the Sun. And it is ſaid by ſome Phyſitians and Magicians, that the fleſh is good againſt melancholy, and the pain of the teeth; but the medicinal vertues we reſerve it to its proper place.

Hurt by Mice to the body of mankinde.

Medicine of Hawks.

Demetrius.

Pliny affirmeth a ſtrange wonder, worthy to be remembred and recorded, that when *Hannibal* beſieged *Caſſelinum*, there was a man that ſold a Mouſe for two hundred pieces of coin, ſo great was the extremity of famine, that the man which ſold it, dyed for hunger, and as it ſhould ſeem through the want of it, but he which bought it lived by eating thereof; the which thing argueth, that neceſſity, hunger, and famin, maketh men for the ſafegard of life, to make more reckoning in extremity of the baſeſt creatures, then in proſperity they do of the beſt. For that perſon which gave ſo much money for a Mouſe, at another time would have ſcorned to have given ſo much for four Oxen.

Eating of Mice.

And on the other ſide, the wretched love of gain, which cauſeth a man to endanger his own life for love of ſilver. But I rather think that it was the hand of God himſelf taking vengeance of ſuch a covetous diſpoſition, which would not ſuffer him to live, that like *Midas* had gotten ſo much gold.

The enemies of Mice are many, not only men, which by ſundry artificial devices kill them, becauſe of harm, but alſo beaſts and wilde fowl do eat their fleſh, and live upon them. And firſt of all Cats and Weeſils do principally hunt to catch Mice, and have been therefore by the late Writers called *Murilegi*, for their taking of Mice. And the nature of the Weeſil is not only more inclined to hunt after them, then the Cat, but is more terrible alſo unto them; for if the brains of a Weeſil, the hair or rennet be ſprinkled upon Cheeſe, or any other meat whereto Mice reſort, they not only forbear to eat thereof, but alſo to come in that place. They are alſo driven away by the ſprinkling of the aſhes of Weeſils; and as all noiſes make them afraid, ſo none ſo much as the ſkreeching or crying of a Weeſil, for at the hearing thereof they all fall aſtoniſhed. And beſides, they have more opportunity to follow and take them then Cats, becauſe their bodies are leſſer, and their noſes and ſnowts longer, and therefore they follow them many times into their holes, and very

Enemies of Mice.

Pliny.

nimbly pull them forth when they think they are moſt ſecure. Foxes alſo kill Mice; and in *Italy* there is a black Snake called *Carbonario*, from his colour, reſembling coals, which I think to be the ſame that the *Græcians* call *Myagros*, from his hunting of Mice: This Snake doth alſo eat and devour Mice. Hawks eat Mice, and all the night-birds, eſpecially the night-crows and Owls. How hateful a Mouſe is to the Elephant, we have ſhewed already in that ſtory, how in the preſence thereof he will not touch his meat, nor eat any thing over which a Mouſe doth run. Nor yet eat in the cratch or manger wherein a Mouſe hath been. *Porzettus* affirmeth, that there is great love between Mice and Serpents, for ſometimes they play together.

There is a hatred betwixt Bats, Frogs and Mice, as may appear by *Anthologius*, *Muſeus*, and others. It is ſaid alſo that they are hateful to Oyſters, whereof I know no reaſon, except it be becauſe they love their fiſh. And *Alciatus* hath a pretty embleme, which he entituleth *Captivus ob gulam*, wherein he ſheweth, that a Mouſe watcheth an Oyſter when he gapeth, and ſeeing it open, thruſts in his head to eat the fiſh; aſſoon as ever the Oyſter ſelt his teeth, preſently he cloſeth his ſhell again, and ſo cruſheth the Mouſes head in pieces, whereby he deciphereth the condition of thoſe men which deſtroy themſelves to ſerve their bellies. And thus much for the love and enmity betwixt Mice and other Beaſts.

Now concerning the actions of men, they hunt Mice to be rid from their annoyances, becauſe they do not only deſtroy the things they eat, and live upon other mens coſt; and therefore Paraſites are compared unto unto them whom the *Germans* call *Schmotozer*, and *Tellerlecker*, that is, ſmell-feaſts, and lick-ſpickets, are compared to Mice, becauſe they live at other mens tables. But alſo Mice do defile and corrupt, and make unprofitable whatſoever they taſte; and therefore the *Egyptians* when they would deſcribe corruption, do picture a Mouſe.

For theſe cauſes have men invented many devices, ſnares, and gins, the general whereof is called by the *Latines*, *Muſcipula*; and by the *Græcians*, *Muſpala*, and *Myagra*, the divers and ſeveral forms whereof I will not diſdain to ſet down. For the wiſe Reader muſt conſider, that it is as neceſſary, or rather more neceſſary for moſt men to know how to take Mice, then how to take Elephants.

And although every woman, and ſilly Rat-catcher can give inſtruction enough therein, yet their knowledge cannot excuſe my negligence, if I ſhould omit the inventions and devices of the Ancients, whereby they delivered themſelves from the annoyances of theſe beaſts. And therefore firſt of all to declare the manner of catching them in places where corn is kept: Let your Mouſe-trap be placed to catch Mice, right againſt the door, but let them have room to come in, and in ſhort time it will ſo fear them, that they will trouble you no more. But if Mice breed in the ground under crevices, except you fill all the crevices with Mouſe-traps, you will never catch them, which the Inhabitants of the Iſland *Pandataria* are fain to do.

Varrus. There are other kinde of Mouſe-traps which do catch Mice alive: and otherſome which do kill them, either being preſſed down with the weight of it, or ſtifled with water, or otherwiſe, as with a ſtrong piece of Iron being ſmall, and hung right againſt the button of the trap, on the which piece of Iron they hang meat, and ſo by that means the Mouſe is catched by putting her head through the hole to ſnatch at the meat; for ſhe by ſtirring the Iron doth looſen the button, and ſo her head is ſhut faſt in the hole. And there are other kinde of Mouſe-traps which are covered all over, into the which the Mouſe may run; and if you have put any water therein they are preſently ſtifled. Of all which kinde of traps ſhall be ſeverally tracted: And firſt of all thoſe which do catch Mice alive.

The common kinde of this Mouſe-trap is made of wood, long, and four-cornerwiſe, and is framed of four boards, but the hinder part is ſtrengthened with ſtrong wiers of Iron, that ſhe may without danger look in to ſee what ſhe may get there; and that the ſmell of that which ſhe findeth there, may allure her to come to it. And the former part hath a hole in the top, through which there is put a ſmall piece of Iron; and alſo there is made a trap-door in form of a Percullis, to the which the Iron is very ſlightly hung, that when the Mouſe cometh to catch at the meat, ſhe is ſuddenly taken by falling of the ſame; but the meat which you faſten to the neather end of this Iron hook muſt be fat, or the cruſt of cheeſe or bread; which if it be a little toaſted at the fire, it will not be amiſs, that the Mouſe may ſmell it far off. Some do make theſe kinde of traps double, with one door at one end, and another door at another end. Theſe kinde of Mouſe-traps *Petrus Creſcent.* doth call traps belonging to houſes, which ſhall be ſpoken of hereafter.

The other kinde of Mouſe-trap is made with Iron hooks hung in the round circle; in the midſt of the which brim is put a great many of the ſame wiers, which being made ſharp at every end, are after the form of the top of a creſt, or helmet, or as it is made in a bow-net to catch fiſhes; and upon the hook let there be hung meat, by which means the Mouſe coming to the meat, ſticketh herſelf upon the hooks. The manner of making leſſer Mouſe-traps is with Walnut-tree, and that the middle part of it be not covered, and that there be put to the mouth or brim thereof ſome kinde of mettle, ſo that the open part may bend inward, and that the Mouſe may not gnaw that which is within, except ſhe creepeth under: which if ſhe ſhall do, ſhe ſhall preſently be ſhut in by ſtirring the trap.

Creſcentien. Alſo there is another kinde of Mouſe-trap which is covered with the bark of a tree, which is cut into equal pieces, and laid croſs one over another; but there is tied a Swines skin in the middle, and alſo an earthen pot covered with the ſame bark, being firſt ſprinkled with corn, that the Mice may cuſtom to come to it, and being dryed with lying, they break in pieces, but you muſt lay them together again, and fill your pot with water, by the which means aſſoon as ever they are upon the ſame, they fall into the pit, and ſo are ſtifled.

And alſo it is reported of thoſe which have tryed the ſame, that if Mice fall into a veſſel without water, and remain there a long time without meat, that then they devour one another, but if they remain there ſo long until one among them all be left alone, that is to ſay, the ſtrongeſt of them all, and that he be ſuffered to go out, whereſoever he ſhall finde any Mice he will eat them up, and they ſhall have much ado to eſcape him, becauſe he hath been ſo long accuſtomed unto them. I was told alſo of a certain friend of mine, that a man of *Senenſis* did ſet a purſe in a hollow place, and made it to open and ſhut by ſome deviſe, ſo that at length he took a Mouſe, which Mouſe he fed only with the fleſh of Mice, and after he had fed it ſo a long time, he let it go, who killed all the Mice he did meet, and was not ſatisfied with them, but went into every hole that he could finde, and eat them up alſo. Alſo Mice are taken in veſſels, from whence they cannot eſcape, upon the which veſſel let there be put a ſmall ſtaffe, which is ſo cut in the middle, that ſhe may only hold her ſelf by the meat, and when you have ſo done, put the kernel of a Nut upon the middle of the ſtaffe, to the which the Mouſe coming, doth fall into the veſſel with the ſtaffe, and they will be ſtifled if there be any water: but if there be none ſhe will be killed.

Creſcentien.

And again, he telleth of another manner of catching of Mice, which is as great as the firſt, and it is after this manner: Take two ſmooth boards about the length of thy arm, and in breadth half thy arm, but joyn it ſo together, that they may be diſtant from the lower part in length ſome four fingers or little leſs, with two ſmall ſpindles or clefts, which muſt be at every end one, and faſten Paper under them, and put a piece of paſte therein, being cut overthwart in the middle, but you muſt not faſten it nigh the middle, and let it be ſo bound, that it may eaſily be lifted up betwixt the ſpindles, that if by ſlipping it ſhould be altered, it might be brought again to the ſame form. But the two ſpindles ſpoken of before, ought to be joyned together in the ends above, and beyond them another ſmall ſpindle to be made, which may hold in the middle a crooked wedge or butten, upon the which may be hanged a piece of Hogs skin, ſo that one of them may eaſily be turned upſidedown with the skin, and put thereunto a little piece of earth or ſtick, that the Mice may eaſily come to it: So that how many Mice ſoever ſhall come thereto, and to the meat, ſhall be taken, always by rowling the Paper into his wonted place.

There is another manner alſo, which is to make a round piece of wood faſtened on both ſides with Needles, and made ſo that the hinder part of it weigh heavier then the former, and that it ſtand an inch higher then the other, and then when you have ſo placed it, throw ſome corn thereon, that the Mice may be allured thereto, and tie alſo a piece of fleſh upon the former end of it; and ſo the Mouſe going into the middle, by the rowling off the ſame, ſlippeth into the kettle which ſtandeth under it, which muſt be half full of water, the circle preſently being as it was before, that very often many Mice are catched in one night by this work, all falling into the kettle. Alſo there are many kindes of Mice-traps, where Mice do periſh by the weight thereof, and they are made of a ſmall piece of wood made hollow, into the which ſhall fall down another ſmall piece of wood; but it muſt be made ſo, that it may fall weighty to preſs down the Mice going to the meat, and let the meat be tied to another little ſmall piece of wood, which being touched, the heavy piece doth preſently fall down, and ſo by that means the Mouſe is taken.

Creſcentien.

Our Country men do make a trap which is ſomewhat like to this, let two pieces of boards be joyned together one foot broad, & two foot long, and afterwards let there be put in them a wooden pin, which you muſt faſten to the lower board, ſo that it may not touch the uppermoſt; and you muſt ſet it ſo, that the former part may eaſily move backward and forward; but moreover, the former board muſt be faſtened to the hinder, like the faſhion of a Gibbet or Gallows, with two pieces of wood ſtanding upright, one being put overthwart, or after the faſhion of the *Greek* letter Π, and it muſt ſtand ſome nine inches high, and as broad as the board will ſuffer you, and let the meat be hung in the middle of it, but that board which is uppermoſt, muſt touch both the ends of the other, and notched according to the breadth, the notch being made after the form of a wedge divided into two parts; and another ſmall piece of wood muſt be put to that which is uppermoſt, almoſt two fingers long, and one finger broad, and let there be put into the lower notch a piece of wood with meat at it, ſo that it may be ſlightly faſtened to the brim of the uppermoſt, that the meat being preſently touched, the other may the eaſilier fall.

And you may lay a ſtone upon the uppermoſt board, that it may fall the heavier. And there are ſome alſo which to the lower board do faſten iron pins, made very ſharp; againſt the which the Mice are driven by the weight of the fall. Furthermore, there is another kinde of trap made to cover them alive, one part of it cut out of a ſmall piece of wood, the length of the palm of thy hand, and the breadth of one finger, and let the other part of it be cut after the form of a wedge: and let this piece of wood be erected like a little pillar, and let the wedge be put into the notch of another piece of wood, which muſt be made equal with the other, or very little ſhorter: and this pillar muſt be ſo made, that the Mouſe may not periſh before ſhe come to the meat: the wood where the meat muſt ſtand, ought to be a ſpan long, and you muſt faſten the meat about the middle of it, but the former part of it muſt have a cleft, which muſt begin a little from the brim, and ſhall be made almoſt the length of two fingers, and you muſt make it with two ſtraight corners, and take away half the breadth of the wood. Theſe three pieces of wood being thus made ready, thou ſhall erect a little pillar, ſo that the wedge may be downward, whereby the Mouſe may ſee the meat every where: and let the meat be hung in the former corner of the pillar, ſo if the Mouſe ſhall touch the meat, he ſhall be preſſed down with the fall of the board. Mice alſo by the fall of a cleft board are taken, which is held up with a pillar, and having a little ſpattular of wood, whereon the meat ſhall lye, ſo made that the pillar doth not open being parted, except when the Mouſe cometh to touch the meat, and ſo by that means ſhe is taken.

There is alſo another manner of Mouſe-trap uſed among us, which is, let there be a hole made and compaſſed about with a board of a foot long, and five or ſix fingers broad, the compaſs whereof muſt be four fingers; into this hole let there be put a veſſel made of wood the length of ones fiſt, but round and very deep; and in the middle of each ſide of this veſſel let there be made a hole, wherein there is put in a thread made of Iron with meat, and let it be compaſſed about with a ſmall thread which muſt be faſtened overthwart the hole: and the part of the thread which hangeth down muſt be crooked, that the meat may be faſtened thereto, and there muſt be a piece of the thread without, to the which may be tied a ſtronger piece of wood, which is the thread whereon the meat is hanged, by the which the Mouſe is taken, by putting her head into the veſſel to catch at the meat.

And alſo Mice are taken otherwiſe, with a great Cane wherein there is a knot, and in the top of it let there be made a little bow with a Lute ſtring, and there ſtick a great needle in the middle of the pole of the Cane, and let the pole be made juſt in the middle, and let there be bound a piece of fleſh beneath, ſo prepared, that when the Mouſe ſhall bite, and move the skin, that then the ſtring ſlippeth down, and ſo the needle pierceth through his head, and holdeth him that he cannot run away. But among all the reſt, there is an excellent piece of workmanſhip to catch Mice; which I will here ſet down: Take a piece of wood, the length of both thy fiſts, one fiſt broad, and two fingers thick, and let there be cut off about ſome two fingers, a little beyond the middle of half the breadth. And that breadth where it was cut, ought to be more declining and lower, after the manner of this letter A. And you muſt put to the ſide of this a piece of wood, half a circle long, bending, and in the middle part of each ſide holes pierced through, ſo that the half circle may be ſtrait, and plainly placed to the foundation of the wood, that the trap being made, it may reſt upon the ſame half circle, and upon this half circle let there be placed Iron nails very ſharp, ſo that the inſtrument by falling down may cover the Irons of the half circle aſſoon as ever they touch the ſame.

Furthermore, there is another manner of trap, when a veſſel out of which they cannot eſcape, is filled half up with water, and upon the top thereof Oatmeal is put, which will ſwim, and not ſink, making the uppermoſt face of the water to ſeem white, and ſolid, whereunto when the Mouſe cometh, ſhe leapeth into the Oatmeal, and ſo is drowned: And the like may be done with chaffe mingled with Oatmeal: and this in all traps muſt be obſerved, wherein Mice are taken alive, that they be preſently taken forth, for if they make water in the place, their fellows will for ever ſuſpect the trap, and never come near it, till the ſavour of the urine be aboliſhed.

Palladius ſaith, that the thick froth of Oyl, being infuſed into a diſh or braſen Caldron, and ſet in the middle of the houſe in the night time, will draw all the Mice unto it, wherein they ſhall ſtick faſt, and not be able to eſcape.

Anatolius.

Pliny ſaith, that if a Mouſe be gelded alive, and ſo let go, ſhe will drive away all the reſidue; but this is to be underſtood of the Sorex. If the head of a Mouſe be flead; or if a male Mouſe be flead all over, or her tail cut off; or if her leg be bound to a poſt in the houſe, or a bell be hung about her neck, and ſo turned going, ſhe will drive away all her fellows. And (*Pliny* ſaith) that the ſmoke of the leaves of the Ewe tree, becauſe they are a poyſon, will kill Mice, ſo alſo will Libbards-bane, and Henbane-ſeed, and Wolf-bane, for which cauſe they are ſeverally called *Myoctonos*, and the roots of Wolf-bane, are commonly ſold in *Savoy* unto the Country people for that purpoſe.

In *Germany* they mingle it with Oatmeal, and ſo lay it in balls to kill Mice. The fume of Wallwort, Calcauth, Parſely, Origanum, and Deaths-herb do alſo kill Mice: you may alſo drive them away with the fume of the ſtone Hæmatites, and with green Tamarisk, with the hoof of a Mule, or of Nitre, or the aſhes of a Weeſil, or a Cat in water, or the gall of an Ox put into bread.

The ſeed of Cowcumbers being ſod, and ſprinkled upon any thing, Mice will never touch it, likewiſe wilde Cowcumber and Coloquintida, kill Mice. To keep Mice from Corn, make morter of the froth of Oyl mingled together with chaff, and let them well dry, and afterwards be wrought throughly, then plaiſter the walls of your garnery therewith, and when they are dry caſt more froth of Oyl upon them, and afterwards carry in your corn, and the Mice will never annoy it.

Cato.

Wormwood laid among clothes, and skins, defend them from Mice: And alſo the water of Wormwood ſod, ſprinkled upon clothes hath the ſame operation.

Tragus.

Ink tempered with water, wherein Wormwood hath been waſhed, or ſod, cauſeth that the Parchment and Paper written therewith, ſhall never be eaten, or touched with Mice.

Avicen.

Paxamus.

Anatolius and *Tarentinus*, in the diſcourſe of the granery or barn, do write, that Milk-thiſtle mingled with Hony, Water, and fine Flower, or Mil-duſt, made into little balls, and laid where Mice may eat of it, doth make them blinde if they taſt thereof. White Hellebore mixed with pottage, or the ſeeds of wilde Cowcumber, Coloquintida, and Meal, mingled with black Hellebore, and

Put into Cheeſe or Bread, or any other kinde of fat meat, killeth both Rats and Mice. So likewiſe a white Camelion ſod in broth, mingled with water and Oyl, killeth Dogs, Swine and Mice.

The juyce of the root of the herb Camelion, mixed with Water and Oyl, draweth Mice unto it, and killeth them by taſting thereof, if they drink not preſently: ſo alſo doth Henbane. The roots of the bramble Tree, mingled with Butter, Bread, or Hony, Elecampane, and Sea Onions, Scammony, wilde Sparage, Arſenick, Mug-wort, otherwiſe called Mouſe-wort', mingled with Lard in ſmall pieces, with Auripigment, killeth Wolfs and Mice; and in ſome Countries, for the better diſperſing of the poyſon, ſet drink beſide the ſame, whereof aſſoon as they taſt, they ſwell and die; but I have ſeen them die without drinking at all. Mice and Wolfs, if they taſt of the wilde Roſe, and drink after it, do not only die, but alſo fall into madneſs and bite their fellows, communicating the quality of the diſeaſe to every one they bite. Fleſh cut into little pieces, and fryed with Butter in a frying pan, and afterwards when it is cold, adde half ſo much ſoft pitch thereto, and mingle it together, rowling up the fleſh in the Pitch; then diſtribute it upon little bords, and ſet it in the place, and places whereunto the Mice do much reſort, and water beſide it, and when that they have taſted of it a little, they are ſo eagerly a thirſt, that they drink and die.

Creſcentienſis.

Cardan.

The like I may ſay of Rats-bane, Quick-ſilver, Sublimate, and Precipitate, and divers other things; and thus much may ſuffice for the catching, taking, and killing of Mice, whereunto I may adde the uſe of their members and parts, not medicinal, but natural, although I have touched it heretofore in part.

The *Scythians* were wont to be clad with the ſkins of Mice and Woolfs, and it is obſerved, that when Mice cry and ſcreeketh above their ordinary cuſtom, it preſageth an alteration and change of the weather; and thus much ſhall ſuffice for their natural diſcourſe.

Having thus diſcourſed of the nature of the vulgar Mouſe, I may alſo add the moral uſe thereof, as I finde it recorded among learned Writers, delivered either in Hiſtory, or in Proverb. It is reported of *Glaucus* the ſon of *Minos* and *Paſiphae*, that while he followed a Mouſe to take her, he fell into a veſſel of Hony; but after *Polyades* the Prophet, by laying an herb on him, raiſed him again to life. *Hatto* an Archbiſhop of *Metz* in the frontiers of *Germany*, was deſtroyed by Mice, or as other ſay by Rats; but the words of *Textor* are;

The moral ſtory of Mice.

Tzetzes.

Hatto Archiepiſcopus Moguntinus à muribus fertur devoratus.

And the error may proceed, becauſe that *Mus* is a general word for the Rat and Mouſe; and therefore they which have thought it an unreaſonable thing, that ſo ſmall beaſts ſhould deſtroy ſo mighty a Prince, have rather attributed it to the Rats then to the Mice; but they ought to have remembred, that it was an extraordinary judgement of God to puniſh a cruel covetous wretch, and that therefore it was as eaſie for him to make the little Mouſe his inſtrument, as the great Rat: for we read, that *Herod* was devoured by Worms; and other have been eaten up with Lice. *Adrian* the Pope was ſtrangled by a Fly; and therefore *Hatto* an Archbiſhop might aſwell periſh through the afflicting hand of God by a multitude of Mice.

Heliogabalus that wretch, amongſt other his monſtrous deſires, and Tyrannical commands, *Lampridius* affirmeth, that upon a time he commanded, that there ſhould be brought unto him ten thouſand Mice alive, a thouſand Weeſils, and a thouſand *Sorices*, or wilde Field-mice, ſo baſe were his thoughts, that while he ſhould have attended his Emperial calling, and hearkened to the ſuits and complaints of poor diſtreſſed ſubjects, he was buſied in killing of Mice, and therefore in ancient time, a Mouſe-killer was taken for an opprobrious ſpeech, for a baſe, ſluggiſh, and idle companion.

The like is reported of a *Muſcovian* Emperour, who to afflict his people, and to gather mony from them, commanded the Citizens of *Muſco*, to bring him a peck full of Fleas: whereunto the people anſwered, that if they could take ſo many, yet could not they keep them together from leaping away. And Mice have been brought into publick ſpectacle, becauſe at *Lavinium* they gnawed aſunder the ſhields of ſilver; and it was afterward judged a prodigy; for there followed the *Marſick* war. When the *Scythians* underſtood that *Darius* with his great Army, ſtood in need of victuals, they ſent unto him a Provant-maſter with theſe preſents or gifts, a Bird, a Mouſe, a Frog, and five darts. At the receit whereof the *Perſians* wondered what ſhould be meant thereby; and demanded of the meſſenger the meaning of the myſtery. But the Ambaſſador anſwered, he knew not any ſignification of his preſents, but only received charge to deliver them, and make haſt back again, and to bid the *Perſians*, if they were wiſe, to lay their wits together, to know and underſtand the meaning thereof. When the *Perſians* heard him ſay ſo, they fell to conſultation. *Darius* gave his opinion, that the Mouſe, ſignified the earth; the Frog, the waters; the Bird, Horſes; and the Darts, warlike furniture and ſtrength of forces; and that the *Scythians* by ſending all theſe unto them, yeelded that the *Perſians* ſhould be Lords of their Land, Sea, Horſes, and themſelves, and that therefore they ought to be of good courage.

Herodotus.

But one *Gobrias*, a grave Counſellor, who was one of the ſeven that ſlew the *Magi*, or Wizards, anſwered otherwiſe, for his conjecture was more true: for ſaid he; *O Perſæ, niſi effecti ut aves ſubvoletis in Cœlum, aut ut Mures ſubeatis terram, aut ut ranæ inſiliatis in paludes, non remeabitis unde veniſtis his ſagittis confecti:* O ye *Perſians*, except ye become like Birds, to flie up into heaven; or like Mice, to creep into the earth; or like Frogs, to leap into the waters, you ſhall not return back again unto the place from whence you came, and ſo indeed it came to paſs. We read 1 Sam. 5. that when the Ark of God was taken by the *Philiſtines*, and they kept it in their Temple at *Hazzah*, the hand of the Lord fell upon their Princes, and he ſmote them with Emrods, in the bottom of their belly, that is, God puniſhed them with Mice, for he afflicted their bodies, and the fruits of the earth, for which cauſe *cap. 6* they advice with themſelves, to ſend back again the Ark of the Lord with a preſent of Golden Mice. *Ovid*, *Homer*, and *Orpheus*, call *Apollo Smyntheus*, for the *Cretians* in ancient time called Mice *Smynthæ*: Now the faigned cauſe thereof is thus related by *Ælianus*:

There was one *Crinis* which was a Prieſt of *Apollo*; who neglected his daily ſacrifice, for the which through abundance of Mice he was deprived of the fruits of the earth, for they devoured all. At which loſs *Apollo* himſelf was moved; and taking pity of the miſery, appeared to one *Horda* a Neat-heard, commanding him to tell *Crinis*, that all the cauſe of that penury was, for that he had omitted his accuſtomed ſacrifice, and that it was his duty to offer them again diligently, or elſe it would be far worſe afterward. *Crinis* upon the admonition amended the fault, and immediately *Apollo* killed all the devouring Mice with his darts, whereupon he was called *Smyntheus*. Others again ſay, that among the *Æolians*, at *Troas* and *Hamaxitus*, they worſhipped Mice and *Apollo* both together, and that under his Altar they had meat and nouriſhment, and alſo holes to live in ſafety: and the reaſon was; becauſe once many thouſand of Mice invaded the corn fields of *Æolia* and *Troy*, cutting down the ſame before it was ripe, and alſo fruſtrating the husbandman of fruit and hope: this evil cauſed them to go to *Delphos*, to ask counſel at the Oracle what they ſhould do to be delivered from that extremity; where the Oracle gave anſwer that they ſhould go ſacrifice to *Apollo Smyntheus*; and afterward they had ſacrificed, they were delivered from the Mice, and that therefore they placed a ſtatue or figure of a Mouſe in the Temple of *Apollo*.

When the *Trojans* came out of *Creet*, to ſeek a habitation for themſelves, they received an Oracle, that they ſhould there dwell, where the Inhabitants that were born of the earth ſhould ſet upon them; the accompliſhing whereof fell out about *Hamaxitus*; for in the night time a great company of wilde Mice ſet upon their bows, quivers, and ſtrings, leathers of their bucklers, and all ſuch ſoft inſtruments, whereby the people knew, that that was the place, wherein the Oracle had aſſigned them to build the City; and therefore there they builded *Ida*, ſo called after the name of *Ida* in *Creet*: and to conclude, we do read that Mice have been ſacrificed, for the *Arcadians* are ſaid firſt of all to have ſacrificed to their Gods a Mouſe; and ſecondly a white Horſe; and laſtly the leaves of an Oak.

Sacrificing of Mice.
Scholiaſt. Lic.

And to conclude, *Ælianus* telleth one ſtrange ſtory of Mice in *Heraclea*, that there is not one of them which toucheth any thing that is conſecrated to Religion, or to the ſervice of their Gods. Inſomuch, that they touch not their Vines which are ſacred to religious uſes, but ſuffer them to come to their natural maturity, but depart out of the Iſland, to the intent that neither hunger nor folly cauſe them to touch that which is dedicated to divine uſes. And thus much for the natural and moral hory of Mice; now followeth the medicinal.

The Medicines of the Mouſe.

Albertus.
Marcellus.
Dioſcorides.

The fleſh of a Mouſe is hot and ſoft, and very little or nothing fat, and doth expel black and melancholy choler. A Mouſe being flead or having his skin pulled off, and afterwards cut through the middle, and put unto a wound or ſore wherein there is the head of a Dart or Arrow, or any other thing whatſoever within the wound, will preſently and very eaſily exhale and draw them out of the ſame. Mice being cut and placed unto wounds which have been bitten by Serpents, or put to places which are ſtinged by them, do very effectually, and in ſhort ſpace of time cure and perfectly heal them. Mice which do lurk and inhabit in Houſes, being cut in twain, and put unto the wounds which are new made by Scorpions, doth very ſpeedily heal them.

Pliny.

A young Mouſe being mingled with Salt is an excellent remedy againſt the biting of the Mouſe called a Shrew, which biting Horſes and labouring Cattel, it doth venome until it come unto the heart, and then they die, except the aforeſaid remedy be uſed. The Shrew alſo himſelf being bruiſed and laid unto the place which was bitten, is an excellent and very profitable remedy againſt the ſame.

Marcellus.
Pliny.
Dioſcorides.

A Mouſe being divided and put or laid upon Warts, will heal them and quite aboliſh them, of what kinde ſoever they ſhall be. The fat which is diſtilled from Mice, being mixed with a little Gooſe-greaſe and boyled together, is an excellent and medicinable cure for the aſſwaging and mollifying of ſwellings and hard lumps or knots which do uſually ariſe in the fleſh. Young Mice being beaten into ſmall bits or pieces, and mixed with old Wine, and ſo boyled or baked, until they come unto a temperate and mollifying medicine; if it be anointed upon the eye-lids, it will very eaſily procure hair to grow thereon. The ſame being unbeaten and roaſted, and ſo given to little children to eat, will quickly dry up the froath or ſpittle which aboundeth in their mouth. There are certain of the wiſe men or *Magi*, who think it good that a Mouſe ſhould be flead, and given to thoſe which are troubled with the Tooth-ach, twice in a month to be eaten. The water wherein a Mouſe hath been ſod or boyled, is very wholeſome and profitable for thoſe to drink who are troubled with the inflammation of the jaws or the diſeaſe called the Squincy. Mice, but eſpecially thoſe of *Africk*, having their skin pull'd off, and well ſteeped in Oyl, and rubbed with Salt, and ſo boiled, and afterwards taken in drink, are very medicinable for thoſe which have any pain or trouble in their lights and lungs The ſame medicine uſed in the aforeſaid manner is very profitable for thoſe which are troubled with a filthy, mattery, and bloudy ſpitting out with retching. *Pliny.*

Sodden Mice are exceeding good to reſtrain and hold in the urine of Infants or children being too abundant, if they be given in ſome pleaſant or delightſome drink. Mice alſo being cut in twain, and laid unto the feet or legs of thoſe which are gowty is an excellent remedy and cure for them. Mice being dryed and beaten to powder, doe very effectually heal and cure thoſe which are ſcalded or burned with hot water, or fire. Cypres nuts being burned and pounded, or beaten into duſt, and mixed with the duſt of the hoof of a male or female Mule, being dryed or ſtamped ſmall, and the Oyl of Myrtle added unto the ſame, with the dirt or dung of Mice being alſo beaten; and with the dung of a Hedge-hog new made, and with red Arſenick: and all mingled together with Vinegar, and moiſt or liquid Pitch and put unto the head of any one who is troubled with the abundance and looſe hanging down or over-growning of his hair, it will very ſpeedily and without any difficulty eaſe him of the ſame. *Marcellus.*

The duſt of a Mouſe pounded and beaten to powder, and mingled with a certain Oyl, is very good and wholeſome, for thoſe which are grieved with a Tetter, or ſcab, which may over-run their whole body. The brains or tail of a Mouſe being dryed and beaten to powder, is very medicinable for thoſe which are troubled with the caſting and ſhedding of their hair; as alſo for the diſeaſe called the Foxes evill; but this operation will work more effectually, if the ſhedding of the hair doth happen by any venom or poyſon. The ſame in operation hath the whole body of the Mouſe being uſed in the aforeſaid manner. *Pliny.*

There is alſo another excellent remedy to cure and heal the aforeſaid diſeaſe, which is this; To take Mice which inhabit in houſes, and to burn or dry them in a pot, and then beat them; and being ſo uſed, to mix them with Oyl of Lawrel, and to rub the hairs which are like to fall or ſhed with Garlick; and to put them all together into a Frontlet or fore-head cloth, and daily to keep the ſame medicine or plaiſter unto them, until the hair do grow faſt, and they be rid of that diſeaſe. *Galen.* There is alſo another remedy for the ſame diſeaſe, which is this: To burn a Mouſe, and beat him into powder, and then to mingle the ſame with Hony, and the greaſe of a Bear, and ſo to anoint the head, and this is accounted for a very ſpeedy and effectual cure. *Galen.*

The duſt or powder of Mice being mixed with Hony and Oyl of Roſes, and ſo baked, or boiled together, and afterward diſtilled into a clear water, and ſo poured into the ears of any one which is deaf, or troubled with any pain in his ears, and it will quickly bring him help and remedy. *Pliny.* The duſt of a dryed Mouſe being alſo mingled with Hony, and rubbed upon the teeth of any one which is troubled with a ſtinking breath, will preſently take away the ſavour thereof. *Marcellus.* If the urine of a man or woman be too fluent and abundant, let them take the duſt or powder of a dryed Mouſe, being beaten and ſtamped, and mix it with Wine or with Goats milk, and ſo drink it up, and he ſhall ſpeedily have remedy. The grievous and violent inflammation or turning of the eye-lids, is cured after this manner: Firſt, they take the fleſh of the Mice, aſſoon as ever it is beaten ſmall, and mingle it with the yolk of an Egge, and mollifie it into a ſalve or plaiſter like unto wax, and then put it into a linnen cloth, and ſo wrap it upon the eye-lids in the time of ſleep, and it will eaſily bring help and remedy. *Galen.*

There is an excellent remedy for the over-ſpreading of the eyes, or to cure the diſeaſe in them, called the Pin and the Web; or to help them which are altogether blinde, which is this: To take the bloud of a Mouſe, the gall of a Cock, and ſome part or quantity of womans milk, and to take of each of them alike, and then to mingle or mix them together, and being well wrought or kneaded until it come to an ointment, to rub or ſpread it upon the eyes: and this will in very ſhort ſpace help them unto their ſight; for it hath been tryed, and hath helped many.

The skin of a Mouſe being burned or dryed, and beaten into powder, and ſo mingled with Vinegar, and then anointed upon the head of any one who is pained or troubled with the Head-ach, it will preſently eaſe and help him. *Galenus. Paral. 3.16.* The head of a Mouſe being alſo born or carryed in a linnen cloth, doth cure the ſame diſeaſe. *Pliny.* The heads of Mice being burned, and beaten into ſmall powder, and then mixed or mingled with Hony, and ſo anointed upon the legs or feet of them which are troubled with the Gowt, are excellent good and wholeſome for the curing of that grievous diſeaſe. *Galenus.* The ſame vertue hath the tails or bodies of Mice, being uſed in the aforeſaid manner in them. Some do think, that the aforeſaid diſeaſe is more ſpeedily and effectually cured after this manner: *Pliny.* Firſt, to take a Beetle or Horſe-fly, and ſtamp it all to pieces, and then to mingle it with ſoft and liquid Pitch, the skin being prepared or made ready with Nitre: but there muſt be great care taken, that it eat not too far in the fleſh: then to take the head of a Mouſe, and the gall and dung of a Mouſe, and mingle them together with Ling-wort and Pepper, and ſo to anoint them, and ſpread them upon the aforeſaid eaten or lanced wounds: and this is very much commended for a very good and medicinable cure for the aforeſaid diſeaſe.

The heads of Mice dryed and beaten into powder or duſt, and then mixed with Hony, and ſo anointed upon the eyes for the ſpace of ten days together, will clarifie the eyes, and expel all pain or blemiſhes from them. *Sextus.* Of the heads of Mice being burned, is made that excellent powder, for the ſcowring and clenſing of the teeth called Tooth-ſoap: unto which if Spikenard be *Pliny.*

added or mingled, it will take away any filthy ſent or ſtrong ſavour in the mouth. The brains of a Mouſe being taken and put or ſteeped in Wine, and ſtamped, and beaten ſmall, and anointed upon the brow or fore-head of any one who is troubled with a pain or ach in the head, and he ſhall ſoon finde eaſe and remedy. *Marcellus.* If any man ſhall but touch or kiſs with his mouth the ſnowt or noſtrils of a Mouſe, and be troubled with the diſeaſe called the Rhume, which falleth down and ſtuffeth the noſtrils, he ſhall in very ſhort ſpace be eaſed of the ſame. The *Magi* or wiſe men do very much commend this medicine for the expelling of a quartain Ague or Fever, which is thus; To take the noſe or ſnowt of a Mouſe, as alſo the very tops of the ears, and bruiſe them together, and afterward tie them in a linnen cloth, which hath had Roſes or Roſe-leaves in the ſame, and then binde them unto the arms or wriſts of him which is ſo troubled, and they will very effectually and ſpeedily cure and heal him. *Myrepſus.* For the rottenneſs and deminiſhing of the teeth, the beſt remedy is to take a living Mouſe, and to take out one of her teeth, whether the greateſt or the leaſt it is no great matter, and hang it by the teeth of the party grieved: but firſt kill the Mouſe from whom you had the tooth, and he ſhall preſently have eaſe and help of his pain. *Sextus.* The heart of a living Mouſe being taken out, and hanged upon the left arm of any woman, is of ſuch force and power, as it will cauſe her never to conceive. The laps or fillets of the liver of a Mouſe, being beaten ſmall and mingled with four drams of ſowre and unpleaſant Wine, is an excellent remedy for thoſe which are troubled with quakings in their joynts; as alſo for Fevers and ſhaking Agues. *Galen.* A Mouſe being cut or parted in the conjunction of the Sun and the Moon, and the liver pulled out and roaſted or boiled, and given to one which is troubled with the aforeſaid diſeaſe to eat, will very ſpeedily and without any difficulty or pain cure and heal him of the ſame. *Pliny.* The gall of a Mouſe being beaten very ſmall, and ſteeped or waſhed in Vinegar, and ſo poured or diſtilled into the ears of any one who is deaf or thick of hearing, or hath any ach or pain in the ſame, is counted for the chiefeſt, and moſt ſingular and chiefeſt remedy or cure which is uſed for the ſame.

Varro. The dung or dirt of a Mouſe being new made, is very profitable for thoſe which are troubled with the diſeaſe called the *Sciatica*, or Hip-gowt, anointed or rubbed upon the ſame. Mouſe-dung being alſo mingled with Vinegar and Oyl of Roſes, and ſo anointed or ſpread upon the fore-head or temples of any one who is troubled with the head-ach, will preſently eaſe and help him of the ſame. *Archigenes.* The gum called Benzoin being mixed with Wine and Safron, and Pepper; as alſo with the dirt or dung of Mice being new made, and mixed with Vinegar, and mingled all in one medicine, and ſo ſtrained and given to one to drink, which is ſpare and lean, in ſome ſhort ſpace or time it will make him grow very fat.

Pliny. The dung or dirt of a Mouſe being mingled with certain other medicines, is very good and wholeſome for thoſe which are troubled with Tetters, and dry ſcabs which over-run the whole Body.

The dung of Mice being mingled with the duſt or powder of Frankincenſe, with a little red Arſenick added thereunto, is a very profitable and wholeſome medicine for thoſe to uſe which are troubled with little hard red bunches and ſwellings ariſing in divers and ſeveral parts of the body. *Marcellus.* Seven pills being taken out of the dung of a Mouſe, and mingled with Vinegar, and anointed upon the fore-head and temples, of thoſe which are grieved therein, will very ſpeedily help and cure him.

The inward parts of earth mixed with Mouſe-dung, white Pepper, and Myrrhe, being of each of them half an ounce, and afterwards mingled with Vinegar all together; and ſo anointed upon the head of any one which is troubled with the Megrim, will very effectually and ſpeedily eaſe and rid him of the ſame. *Myrepſus.* The herb called *Strumus* beaten together with Mouſe-dung, and afterwards mixed with Vinegar, is an excellent remedy againſt the ſwellings in the head, or little bunches which ariſing therein become ſores, and are full of matter and filthy corruption. The dung or dirt of Mice being melted, diſſolved, and mingled with Vinegar, and then rubbed upon the head of any one who is troubled with the ſcurf or ſkaules thereon in a bathe or ſtove, will preſently expell and drive them quite away.

Galenus. The dung of Mice being mingled with Frankincenſe, and ſo beaten or tempered together until they come unto the likeneſs or thickneſs of Hony, and then anointed upon the legs or feet of any one that is troubled with the Gowt, he ſhall finde preſent help and remedy. The ſame diſeaſe alſo is very effectually cured by the dung of a Mouſe, and burned or ſcorched Barley mingled together, of each being the ſame weight or quantity, and afterwards mixed with Vinegar all together, and ſo ſpread or anointed upon the diſeaſed parts. *Pliny.* There is alſo another excellent remedy for curing of the aforeſaid diſeaſe, which is thus: To take Cantharides, and bruiſe them all to pieces, and mingle them with ſoft or liquid Pitch, and alſo with Nitre, and ſo anoint or rub them upon the skin being prepared for the purpoſe; but there muſt be great care had, that the skin be not rubbed or lanced too far. Afterwards unto the wound ſo made, there muſt be taken the heads, galls, and dung of Mice, being mixed with the herb Lingwort, and Pepper; and ſo beaten all together until they come unto a temperate ſalve or medicine, and then anointed upon the ſaid wounds, and they will in very ſhort ſpace cure the ſame.

The hairs and dung of a Mouſe, parched or dryed by the fire, and anointed upon the eye-lids of any one which are pield or bare, will preſently procure hair to grow thereon.

Alexius Pedemontanus. Mouſe-dung being dryed in the ſhade is an excellent remedy againſt the voiding or ſpitting of bloud which floweth from ſome parts of the body, but eſpecially from the belly. The ſame is alſo very good to ſtanch the bloud which iſſueth from wounds being new made. White Sceny-ſeed, and the dung of a Mouſe or Hare being put into broth, with the ſtem or ſtalk of Fennil, and ſo boyled together, and afterwards given unto a woman to drink who is deſtitute of milk in her breaſts, will preſently and very ſpeedily procure her milk in great abundance.

Serenus. The dung of Mice being ſteeped or waſhed in rain water, doth eaſe and refreſh the ſwelling of womens dugs in their time of delivery. The dung of a Mouſe being given in any drink or liquor to one that is troubled with the diſeaſe called the Colick and ſtone to drink, will in very ſhort ſpace or time cure him of the ſame. Mouſe-dung being alſo taken in drink, doth looſe the body of either man or woman, how faſt ſoever they be bound. There is an excellent remedy ariſing from Mouſe-dung againſt the *Sciatica*, or Hip-gowt, which is this: To take nine grains of a Mouſes dung mixed or mingled with half a pinte of Wine, and given to the party grieved upon a bench or foot-ſtool to drink, ſo that he drink it ſtanding upon that foot only which paineth him, even at the Sun riſing; and having ſo drunk it, let him leap down, and afterwards let him leap three times, and let him do this but three days together, and he ſhall have preſent help and remedy of his diſeaſe. *Marcellus.* *Dioſcorides.*

Avicen. Mouſe-dung mixed with Frankincenſe and ſweet Wine, and ſo drunk by any one which is troubled with the Colick and Stone, will preſently eaſe him of the ſame. But the dung of Mice mingled with Frankincenſe, Water, and Hony, and ſo boyled together, and drunk, doth not only drive away the pain of the aforeſaid diſeaſe, but alſo doth break and quite diſſolve the Stone. Mouſe-dung alſo being taken in drink by it ſelf alone, doth diſſolve and melt the Stone in the Bladder. The ſame being alſo boyled in water, is very good and profitable for thoſe which cannot make water. The ſame being new made and anointed upon the belly of any one who is troubled with the Colick or Stone, ſhall finde preſent eaſe and remedy thereby. *Pliny.*

There is yet moreover another excellent medicine proceeding from this dung, whereby the fruit in a womans womb may be brought forth either dead or putrified, without any hurt or prejudice unto the woman, which is thus; First to take *Egyptian* Salt, Mouſe-dung, and Gourds which are ſowen in Woods; and afterwards to pour in half a pinte of Hony, being half boyled, and to caſt one dram of Rozen into the Hony, the Gourds, and the Mouſe-dung, and beat them well and throughly together, and then rowl them up, and faſhion them in the manner of Acorns, and put them to the belly of the party ſo grieved as often as you ſhall think it meet and convenient, and in uſing this ſome ſhort ſpace or time, you ſhall ſee the aforeſaid putrified fruit to proceed and iſſue forth. *Hippocrates.*

Avicen. Mouſe-dung being parched or burned, and mingled with Hony, is very good and medicinable aſwell for thoſe which are troubled with the ſwellings in their legs and feet; as alſo for thoſe whoſe eye-lids are pilled and bald, to make hair to grow again upon them, being ſpread or anointed thereupon. The dung of Mice being dryed and beaten into ſmall duſt or powder, and put into the teeth of any one which are hollow, will preſently expel away all pain from them, and alſo confirm and make the teeth ſtrong. The duſt or powder which proceedeth from Mouſe-dung, is alſo very good to cure any diſeaſe in the fundament of either man or woman. *Marcellus.*

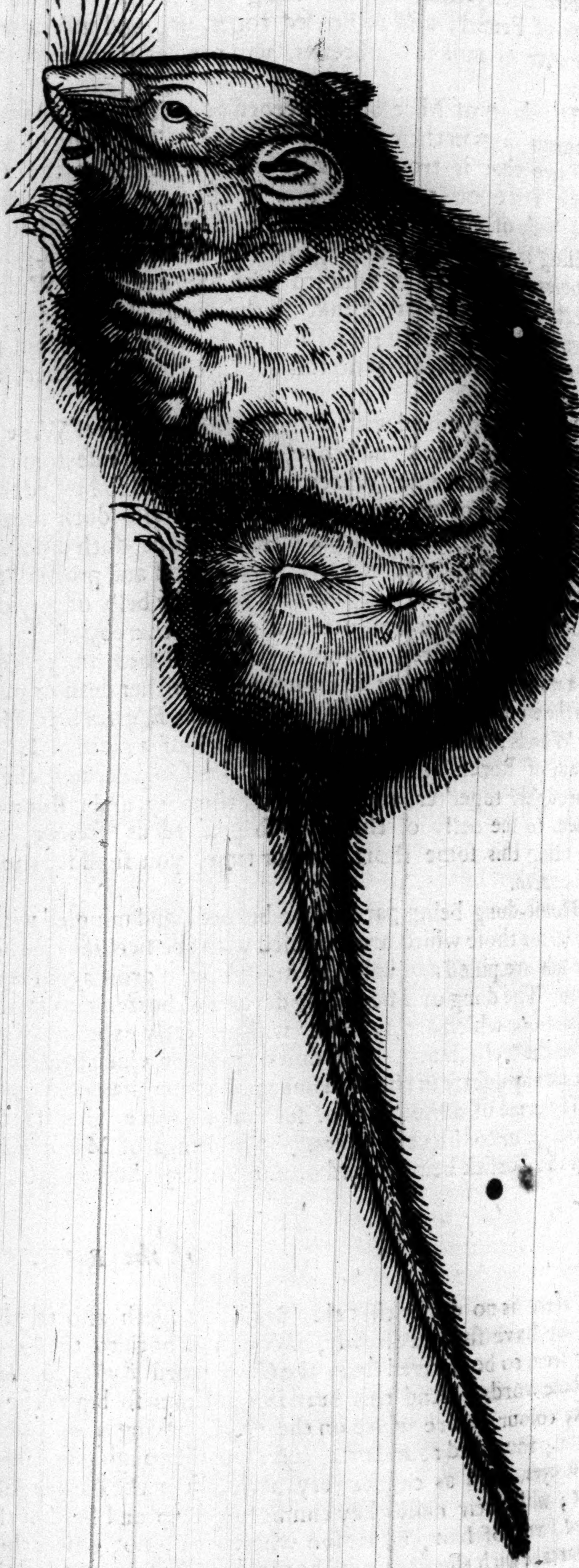
The urine of a Mouſe is of ſuch ſtrong force, that if it ſhall but touch any part of a mans body, it will eat unto the very bones. The bitings of Mice are healed by no other means but by green Figs and Garlick being mixed or mingled together, and ſo anointed thereupon.

Of the RAT.

The vulgar Rat, or great domeſtical Mouſe.

The quantity of Rats and their parts.

THere is no doubt that this Beaſt belongeth alſo to the rank of Mice, and the name thereof we have ſhewed already, is common both to the *French*, *Spaniſh*, *Italian*, and *Engliſh*, and it may ſeem to be derived from the *Greek* word *Raſtes*, or *Heurex*, or *Riſcos*, for the *Grecians* uſe all thoſe words. And this beaſt is four times ſo big as the common Mouſe, being of a blackiſh dusky colour, more white on the belly, having a long head, not much unlike the head of the Martin; ſhort and round ears, a reaſonable rough skin, ſhort legs, and long claws, and exceeding great eyes, ſuch as can ſee very perfectly in the dark night, and more perfectly then by candle light; with their nails they climbe up ſteep and hard walls, their tail is very long, and almoſt naked, void of hair, by reaſon whereof it is not unworthily counted venomous; for it ſeemeth to partake with the nature of Serpents. The quantity of their body is much like a Weeſils; and ſometime you ſhall ſee a Rat exceeeding the common ſtature, which the *Germans* call *Ratzen Kunig*, the King of Rats, becauſe of his larger and greater body; and they ſay that the leſſer bring him meat, and he lyeth idle. But my opinion is, that as we read of the Dor-mouſe, ſhe nouriſheth her parent when ſhe is old; ſo likewiſe the younger Rats bring food unto the elder, becauſe through their age, they are not able to hunt for themſelves, and are alſo grown to a great and unweeldy ſtature of body. Sometimes you ſhall ſee white Rats, as was once ſeen in *Germany*, taken in the middle of *April*; having very red eyes ſtanding forth of their head, and a rough and long beard. And at *Auſpurg* in *Germany*, about the Temple called the Church of S. *Huldric*, they abound in greater number then in other places. They do not lie in the earth like Mice, except in the vally of *Ioachim*, where for the Summer time they forſake houſes, and go into Cony holes, but in the Winter time they return to the houſes again. They are more noyſome then the little Mouſe, for they live by ſtealth, and feed upon the ſame meat that they feed upon, and therefore as they exceed in quantity, ſo they devour more, and do far more harm. They are killed by the ſame poyſons and meats that the common Mice are killed, except Wolf-bane; for if they eat thereof, they vomit it up again, and are ſafe. They are alſo taken in the ſame traps, but three or four times ſo big: Their fleſh is far more hot and ſharp then the fleſh of the vulgar Mouſe, as we have gathered by the diſſection of it, and therefore in operation it is very like that it expelleth and dryeth more then the other.



Medicines by Rats.

Poyſon of Rats.

The excrements are alſo of the ſame vertue; and with the dung of Rats the Phyſitians cure the falling off the hair. And it is ſaid alſo that when they rage in luſt, and follow their copulation, they are more venemous and dangerous then at other times. For if the urine do fall upon the bare place of a man, it maketh the fleſh rot unto the bones, neither will it ſuffer any ſcar to be made upon the ulcer; and thus much of the vulgar Rat.

Of the WATER-RAT.

Names of Water-rats.

Meat of Water-rats.

Places of Water-rats abode.

A wonder in the parts of a female Rat.

SEeing there are two kindes of Rats, one of the earth called *Rattus terreſtris*, and the other of the water called *Rattus Fluviatilis*, of which we are now to entreat, being alſo called of the *Latines*, *Mus aquaticus*; by the *Germans*, *Twaſſermaus*, and *Waſſerrat*; by the *Italians*, *Sorgomogange*; by the *French*, *Rat d'eau*. This beaſt hunteth fiſhes in the Winter, and have certain caves in the water ſides, and banks of the Rivers or Ponds: For which occaſion it being ſeen in the waters, deceiveth their expectation which look for the return of it to the land. And this beaſt hath been forgotten by the Ancients, for they have left of it no deſcription nor ſtory, becauſe it liveth partly in the water, and partly on the land, and therefore he ſaid true, that ſpake of the habitation and place of abode of this beaſt, in this ſort; *Ego non in fluviis, nec aliis aquis magnis, ſed parvis tantum rivis atq; herboſis omnium ripis, hoc animal frequentiſſimum verſari audio.* That is to ſay; That this beaſt doth not keep in great Waters or Rivers, but in ſmall and little currents and Ponds, where abundance of graſs and other weeds do grow on the ſides and banks: *Pliny* attributeth that to the Water-rat, which is proper to the Tortoiſe; for indeed there is ſome ſimilitude of natures bewixt theſe beaſts, with this exception, that the females in this kinde have three viſible paſſages for their excrements, one for their urine, another for the dung, and the third for the young ones, that is a peculiar place for the littering of their young ones; and this Water-rat over and beſide her common nature with other Rats, doth ſwim over Rivers, and feed upon herbs; and if at any time ſhe be hunted from her native biding and accuſtomed lodging, then alſo ſhe goeth among vulgar and common Rats and Mice, and feedeth upon ſuch as they eat: and (*Bellonius* ſaith) that there are great ſtore of theſe in *Nilus* and *Strymon*, and that in calm nights when there are no windes, they walk to the ſhores, & get up upon the banks, eating and gnawing ſuch plants as grow near the waters; and if they hear any noiſe, they ſuddenly leap into the waters again. He expreſſeth alſo the figure of this Rat, which we have omitted becauſe it reſembleth in all parts the common Rat, excepting the ſnowt or beak which is rounder or blunter. Among ſome of the Ancients alſo, there is mention made of this beaſt, and no more. Therefore *Ariſtotle* ſaith in the *Arcadian Luſe*, which is a City ſo called, (as *Stephanus* writeth,) where *Malampus* did waſh the daughters of *Prœtus*, and delivered them from their madneſs: There is a certain Fountain, wherein do live Rats of the Earth, (they ſhould ſay Rats of the Water.) for hereunto agree both *Pliny* and *Theophraſtus*. Likewiſe in a River of *Caſſinus*, the ancient Wiſe-men, which were followers of *Zoroaſtres*, made great account of the Hedgehog, but hated deadly the Water-rats, and ſaid, that he that could kill moſt of them, was moſt dear and acceptable to God. And furthermore they ſaid, that Dogs, Hens, and Hedgehogs, did proceed, and were attended from and by good Angels, and Water-rats by evill. And thus much ſhall ſuffice for the diſcourſe of the Rat. The ſtory which enſueth is of ſtrange and leſs known Mice; and therefore I will diſtribute them after an alphabetical order, according to their ſeveral names.

Of the *ALPINE MOVSE.*

THe *Alpine* Mouſe taketh her name from the *Alpes*, wherein ſhe is bred, and although there be many other kindes of Mice bred in the *Alpes*, yet this being the principal thereof, receiveth denomination from the Mountains, becauſe they are bred in the very tops of the Mountains, and ſeldom or never come down to the roots. The *Italians* call it *Marmota*, and *Murmont*, and according to *Matheolus*, *Marmontana*; the *Rhætians*, *Montanella*; and in ſome part of *Italy*, *Varroſa*; in *France*, *Marmote*; although *Marmot* be alſo a word among them for a Munkey. The *Germans*, and eſpecially the *Helvetians*, by a corrupt word drawn from a Mouſe of the Mountain, *Murmelthier*, and *Murmentle*, and ſome *Miſtbellerle*, by reaſon of his ſharp whining voyce like a little Dogs. In *Latine* it is called alſo *Emptra*, which ſeemeth to be compounded of *Embdor*, and this is the leaſt kinde of *Alpine* Mice, which is found in all the *German* Regions; of which we will ſpeak in the end of this ſtory. Some take this to be called *Taxus*, amongſt, whom *Braſſavolus* is one; yet it hath no property with the *Alpine* Mouſe, except lying in a Cave; for it doth not ſleep in the Winter, nor hath no outward reſemblance with Mice, neither can have any affinity in diſpoſition or manner of living, and therefore I cannot aſſent thereto. *Grapaldus* & *Alunnus*, both learned *Italians*, ſay, that the *Armelins* are called *Alpine* Mice, whereunto they are led, becauſe they ſleep all the Winter long, like the *Alpine* Mouſe; but we ſhall ſhew in their due place, that theſe belong to the Weeſils, and not to the Mice, which living in cold Countries, grow white in the Winter time: the *Hebrew* word is *Saphan*, according to ſome Authors, and is tranſlated *Arcktonim*, but we will ſhew in due place, that the *Arktomys* is the *Crycetus*, or *Grycet* Mouſe, and the *Saphan* we have ſhewed already to be the Cony.

Theſe *Alpine* Mice are in the tops of the *Apennine* hills, and none of the Ancients except *Pliny* make mention thereof, and it is doubtful whether he doth deſcribe it or no. For his words are, *Sunt his Muribus Alpinis pares & in Ægypto, ſimiliterq; reſidunt in clunibus & binis pedibus gradiuntur, prioribuſq; ut manibus utuntur*, that is to ſay, there are Mice in Egypt like to the *Alpine* Mice; for they ſit upon their buttocks, and go with their fore-moſt two feet, which alſo they uſe inſtead of hands, by which we collect, that they are not the ſame, but like the *Alpine* Mice.

The quantity of this beaſt, and the ſeveral parts.
Mathæolus.

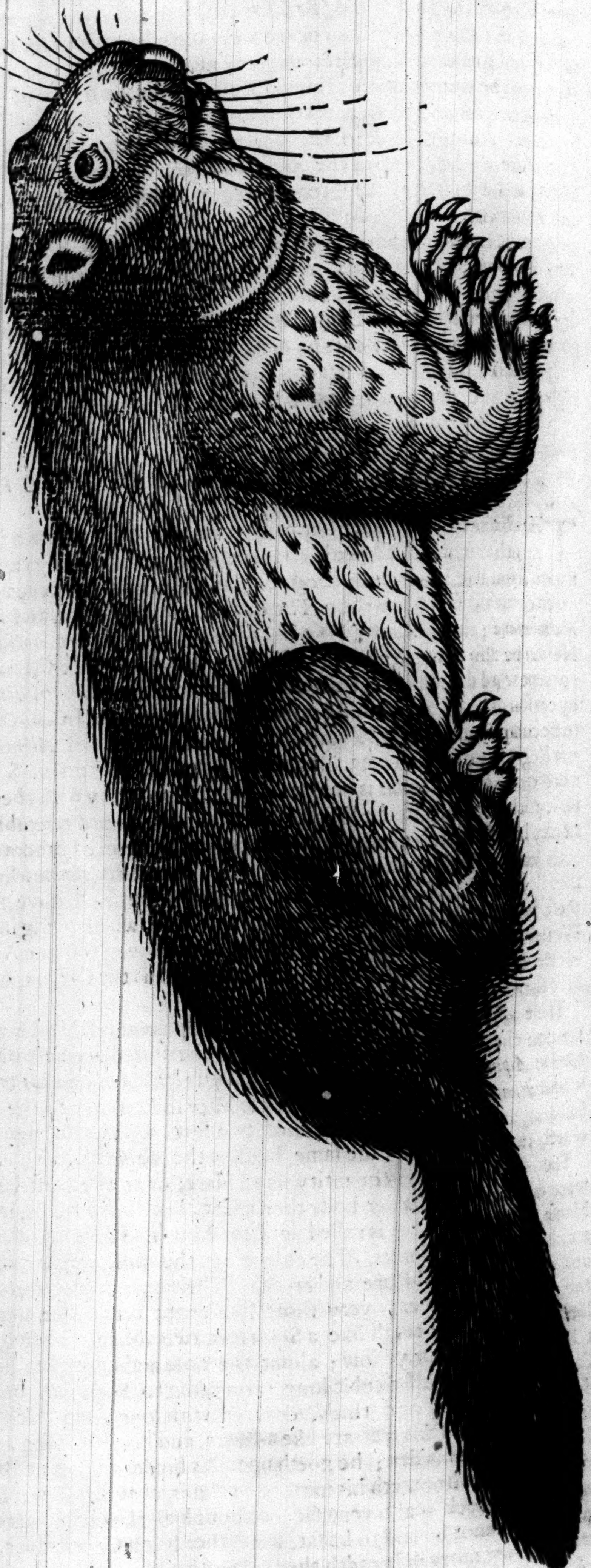
The *Alpine* Mouſe is in quantity like a Hare, or at the leaſt betwixt a Hare and a Cony, being more fat, and of a thicker body then a Cat, but ſhorter legs, in outward appearance moſt like a Mouſe, and therefore it is called an *Alpine* Mouſe. The back of it is very broad, and the hair harder and harſher then a Conies. The colour for the moſt part is yellow, which in ſome is more clear, and in others more obſcure and brown. Their eyes of a reaſonable quantity, ſtanding far out of their heads. Their ears very ſhort like cropt ears. The head like a Hares, and their feet with long nails; his fore-teeth like a Squirrels, two above, and two beneath, but long and ſharp like a Beavers, in colour yellow; about the noſe and upper lips he hath long black briſtle hairs like a Cat. The tail is half a cubit long, according to *Stumpſius*, but two palms according to *Agricola*. His legs very ſhort and thick, covered with long deep thick hair, like to the bottom of his belly. The toes of his feet are like a Bears, and his claws long and black, wherewithall he diggeth the earth to make his den; he goeth upon his hinder-feet like a Bear, or like an Ape, by jumps, and with his fore-feet he taketh his meat like a Squirrel and an Ape, ſitting in the mean time upon his buttocks. His back is alſo very fat, although all the other parts of his body be lean, and yet that on his back cannot be ſaid to be fat, but rather like a Cows udder, neither fat nor fleſh, and they encreaſe or grow more in breadth then in length.

The deſcription of the great *Alpine* Mouſe.

Scaliger deſcribeth them in this manner, a *Marmot* (ſaith he, for ſo he tearmeth an *Alpine* Mouſe in *French*) is a Beaſt about the bigneſs of a Badger, having hair and tail much like it; and after

The places of their abode, and their ſingular art in making their cave.

the ſame manner ſhort legs, and little or no ears, long, ſharp, firm, crooked, ſtrong and black claws, which is numbred amongſt the kindes of Mice, with whom it holdeth little correſpondence, except that like a Squirel it taketh his meat in the fore-feet as with hands, and eateth ſitting upon his tail. They agree alſo with the Dor-mouſe in their ſleep, for they paſs over Winter ſleeping. Their teeth are like to the teeth of Hares and Mice; after that they are made tame, they are not hurtful to men or children, except they be provoked. Being kept in houſes, they will eat and gnaw all linnen and woollen cloth; thus far *Scaliger*. But we have ſhewed already, that the outward appearance of it is like a Mouſe, and that therefore it is ſafer to follow *Pliny*, *Albertus*, *Mathæolus*, *Stumpſius*, and others, then his ſole and ſingular opinion; they keep as we have ſaid already, in the tops of the Mountains, wherein they make their cave with wonderful art and circumſpection, making two different paſſages into their Den, one above another a poles length, which meet in the middle like a fork, or the conjunction of two Rivers or Path-ways, making the ſeat of their reſt to be very deep in the Mountain, and therein they remain five, ſeven, nine, or eleven of them together.



Their obſervation of watch.

They play many times before the mouth of their Den together, and in their ſport or paſtime, bark like little Dogs. When they go out of their cave into the Mountains to gather food, or to play, or to fetch in graſs; always one of them remaineth like a Watchman near the mouth of the cave upon ſome high place, looking moſt diligently and vigilantly, both far and near; and if he ſee either a man or wilde beaſt coming towards them, then he ſuddenly cryeth out, and with his voyce giveth the warning word, whining like the whiſling of a pipe, if his fellows be far off; or elſe barking like a Dog, if they be near at hand. When the reſidue hear it, they preſently repair home, and he which kept the watch, entereth into the Den laſt of all. And it is reported by a certain *Greek* Writer, that if their ſpeculator do not give them the watch-word, but that they are endangered by any man or beaſt through his negligence, they tear him in pieces with their teeth. There is no beaſt ſo ſtrong as this, conſidering the quantity; for it hath been ſeen, that when a luſty young man took one of them by the hinder-leg

Stumpſius. The ſtrength of this Beaſt.

leg as it ran into the Den, he could not with all his might pluck it back again. The claws of it are exceeding ſharp, and fit to dig; ſo that it is thought if a man finde them in the earth, and ſeek to take them by digging unto them, he ſhall labour in vain, becauſe the Beaſt diggeth faſter from him then he can follow her; they cannot run very faſt in the plain ground, but are eaſily killed by a man, except they get into the earth: with their teeth they bite deep, for they can ſheer aſunder wood with them like Beavers, they eat or live upon fruits, and eſpecially being tamed when they are young; they refuſe not bread, fleſh, fiſh, or pottage, and above all they deſire milk, butter, and cheeſe; for in the *Alpes* they will break into the little Cottages where milk is kept, and are oftentimes taken in the manner ſucking up the milk, for they make a noiſe in ſucking of milk like the pig In the moneth of *May* they are much delighted to eat Hornets, or Horſe-flies, alſo they feed upon wilde Sagapen of the meddow, and ſeeded Cabages, and while they are wilde in the Mountains, they never drink; the reaſon is, as I ſuppoſe, becauſe in the Summer time they eat moiſt green herbs, and in all the Winter time they ſleep.

Their ſeveral food.

Entrance into their caves.

Towards the feaſt of Saint *Michael* the Archangel, and of *Gallus*, they enter into their Caves; and as *Pliny* ſaith, they firſt of all carry proviſion of Hay, and green Herbs into their Den to reſt upon, wherein their wit and underſtanding is to be admired; for like Beavers one of them falleth on the back, and the reſidue load his belly with the carriage, and when they have laid upon him ſufficient, he girteth it faſt by taking his tail in his mouth, and ſo the reſidue draw him to the Cave; but I cannot affirm certainly, whether this be a truth or a falſehood. For there is no reaſon that leadeth the Author thereunto, but that ſome of them have been found bald on the back. But this is certain, when the Snow begins to cover the Mountains, then do they enter into their Dens, and ſhut up cloſe the paſſages, with ſticks, graſs, and earth, both ſo hard and ſo thick, that it is eaſier to break the ſolid ground, then the mouths of their Caves, and ſo being ſafely included, both from the fear of the Hunters, from rain, ſnow, and cold, there they live until the Spring, without all manner of meat and drink, gathered round together like a Hedgehog, ſleeping continually; and therefore the people inhabiting the *Alpes* have a common proverb, to expreſs a drowſie and ſleepy fellow in the *German* tongue thus; *Er muſſe ſyuzyt geſchlaffen haben wie ein murmelthier*: in *Latine* thus; *Neceſſe habet certum, dormiendo, tempus conſumere, inſtar muris Alpini.* He muſt needs ſleep a little, like the Mouſe of the *Alpes*. They ſleep alſo when they be tamed, but it hath been found by experience, that when a tame one hath been taken a ſleep, and laid in a warm barrel upon Hay, the mouth being ſhut and cloſed to keep out rain and ſnow, at the opening thereof it was found dead; and the reaſon was, becauſe it lacked breath, and therefore this is moſt wonderful, that in the Mountains, notwithſtanding the cloſe ſtopping of the mouth of their Caves, yet they ſhould not be deprived of refrigeration, that is, freſh air, for expiration, and reſpiration.

Their continual ſleep all the Winter time.

But this is to be conſidered, that after they have been long tamed, they ſleep not ſo much as when they are wilde; for I think that their continual eating of raw and green herbs, ingendereth in them ſo many humors as cannot be diſperſed without a long continuing ſleep; but afterwards when they are dieted with ſuch meat as is provided for the nouriſhment of man, they are eaſed of the cauſe, and ſo the effect ceaſeth. During the time that they ſleep, they grow very fat, and they are not awaked very eaſily, except with the heat of the Sun or fire, or a Hot-houſe. Now the manner of their taking while they are wilde, is thus;

Growing fat with ſleep.

The taking of theſe beaſts.

In the Summer time when they go in and out of their Caves, they are taken with ſnares ſet at the mouth thereof; but in the Winter time, when they go not abroad, then alſo are Inhabitants forced to another deviſe, for then in the Summer time, they ſet up certain pillars or perches near the mouth of their Den, whereby they may be directed, when the ſnow doth cover the Mountains. For the pillars or poles ſtand up above the ſnow, although the ſnow be very deep. Then come the Inhabitants upon round pieces of wood in the midſt of the Winter, faſtned to their ſhooe-ſoles over the deep ſnow with their pyoners and diggers, and caſt away the ſnow from the den, and ſo dig up the earth, and not only take the beaſts, but carry them away ſleeping, and while they dig, they diligently obſerve the frame and manner of the ſtopping of the Mouſes den. For if it be long and deep, if is a ſign of a long and a hard Winter, but if they be ſhallow and thin, of the contrary: ſo coming upon them as we have ſaid, they take them and carry them away aſleep, finding always an odd number among them; and they diligently obſerve, that whileſt they dig, there be no great noiſe, or that they bring not their fire too near them. For as *Stumpſius* ſaith, *Experrecti enim capi non poſſunt, nam utcunq; ſtrenue fodiat venator, ipſi fodiendo ſimul & retrocedunt & pedibus quam effoderint, terram rejiciendo foſſorem impediunt.* That is to ſay, If they be once awaked, they can never be taken, for howſoever the Hunter dig never ſo manfully, yet they together with him, dig inward into the Mountains, and caſt the earth backward with their feet to hinder his work.

Their taming and conditions in the honſe.

Being taken as we have ſaid, they grow very tame, and eſpecially in the preſence of their keepers, before whom they will play and ſport, and take lice out of their heads with their fore-feet like an Ape. Inſomuch as there is no beaſt that was ever wilde in this part of the world, that becometh ſo tame and familiar to man as they; yet do they always live in the hatred of Dogs, and oftentimes bite them deeply, having them at any advantage, eſpecially in the preſence of men, where the Dogs dare not reſiſt nor defend themſelves. When they are wilde, they are alſo killed aſleep, by putting of a knife into their throat, whereat their fore-feet ſtir a little, but they die before they can be awaked.

The ſaving and uſe of their fleſh.

Their bloud is ſaved in a veſſel, and afterwards the Mouſe it ſelf is dreſſed in hot ſcalding water like a Pig, and the hair thereof plucked off, and then do they appear bald and white; next to that they bowel them, and take out their intrails: afterwards put in the bloud again into their bellies, and ſo ſeethe them, or elſe ſalt them, and hang them up in ſmoke, and being dreſſed after they are dryed, they are commonly eaten in the *Alpine* Regions with Rapes and Cabbages, and their fleſh is very fat, not a fluxible or looſe fat like the fat of Lambs, but a ſolid fat, like the fat of Hogs and Oxen. And the fleſh hereof is commended to be profitable for Women with childe; and alſo for all windineſs and gripings in the belly, not only the fleſh to be eaten in meat, but alſo the fat to be anointed upon the belly or navil: And for this cauſe it is uſed to procure ſleep, and to ſtrengthen decayed and weak ſinews: the fleſh is always better ſalted then freſh, becauſe the ſalt drieth up the overmuch humidity, and alſo amendeth the gravity and ranckneſs of the ſavour: but whether it be ſalt, or whether freſh, it is always hard to be digeſted, oppreſſing the ſtomach, and heating the body overmuch.

The medicines of this beaſt.

The ventricle or maw of the Mouſe *Alpine*, is preſcribed to be laid upon the belly againſt the Colick. If the hands of a man be anointed with the fat of this beaſt, it is ſaid he ſhall be the better able to endure cold all that day after: Alſo the ſame fat being drunk up in warm broath by a woman in travail, are believed to accelerate and haſten her delivery.

Certain Horſe-leeches, in the cure of that diſeaſe which they call the Worms, which are certain ulcers riſing in the body, do mingle this fat with other medicines which are very drying or ſtiptick. And *Mathæolus* doth preſcribe it for the ſoftning and mollifying of contracted nerves and joynts in the body.

The deſcription of the *Emptra* or little *Alpine* Mouſe.

By the diſcourſe aforeſaid, it doth appear, that of theſe *Alpine* Mice there are two kindes, one great like a Badger, and the other in ſtature of a Hare or Cony: This leſſer ſeemeth to be proper to *Germany*, which there they call *Embdor*, of the *Latine* word *Emptra*, a Mouſe of the Mountain.

The ſtory whereof I thought good to expreſs, being ſhort, out of *Stumpſius* and *Agricola*. The males and females ſay they of this kinde, do gather together wilde corn which groweth among the Rocks in the Summer time againſt the Winter, and carry the ſame into the holes of the earth, where their lodging is.

Albertus.

Now the female in this kinde is crafty, and more apt to devour; the male on the other ſide more thrifty and ſparing, wherefore he driveth his female out of the Den in the Winter time, and ſtoppeth the mouth of his Cave, to forbid her entrance, but ſhe getteth behinde the ſame, and diggeth a ſecret hole, whileſt the male lyeth at the mouth aſleep, ſhe conſumeth the whole ſtore behinde him; wherefore in the Spring time ſhe cometh forth very fat and comely, and he very lean. And therefore in my opinion, the makers of emblems may very well deſcribe an unthrifty Wiſe, that conſumeth her Husbands wealth, by the picture of this female, as by the picture of the Aſs behinde *Ocnus*, biting aſunder the cord that he weaveth, as we have ſhewed before in the Hiſtory of the Aſs. Theſe beaſts give themſelves much to ſleep, and when they are awake they are never idle; but always carrying into their Den ſtraw, hay, ſticks, rags, or pieces of cloth, wherewith they fill their mouth ſo full, that it may receive no more, and if they meet with any thing which is too big for their mouth, by the help of their feet they draw and rowl it to their own Den.

Whereas they are nouriſhed tame in houſes, it is obſerved, that they are a neat and cleanly kinde of beaſt, for they never defile their lodgings with their excrements, but ſeek out ſome ſecret corner, wherein they both render urine, and empty their bellies. With their teeth the gnaw wood, and make holes in bords, ſo large as their bodies may paſs through; and while they live, they have a very ranck and ſtrong ſavour like a Mouſe, eſpecially in the Summer time while they are lean, and before they grow fat; for ſuch is the nature of this beaſt, that in the Summer time they labour and grow lean; but in the Winter time they ſleep and grow fat. And thus much for the *Alpine* Mouſe.

Of the DORMOUSE.

The names and reaſons thereof.

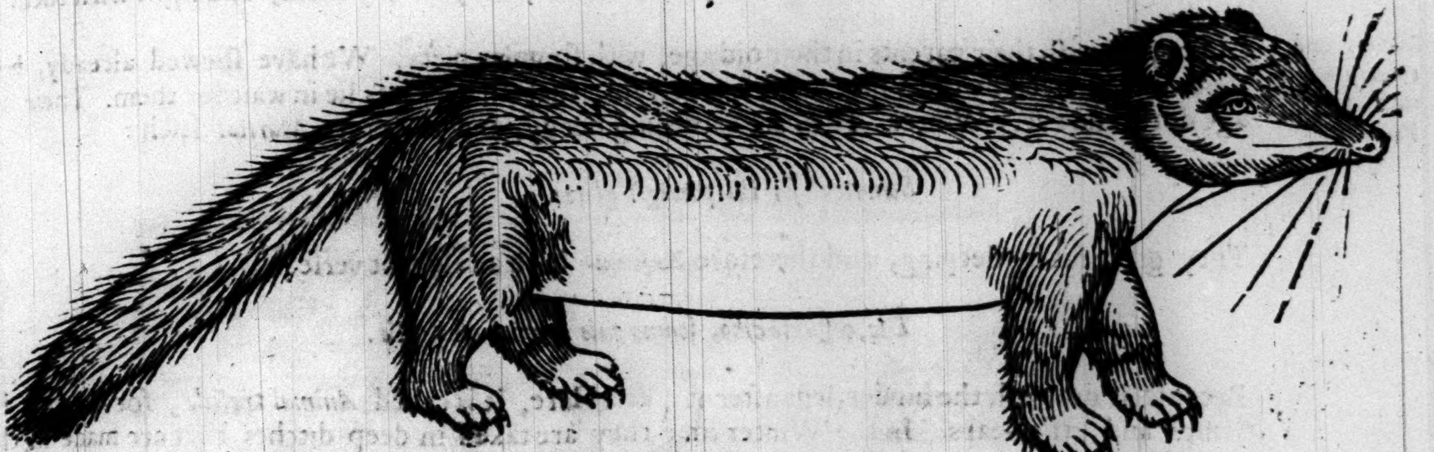
THe Dormouſe is called in *Latin*, *Glis*; and in *Greek*, *Myoxos*; the reaſon of the *Latine* name *Glis*, is taken from *gliſcere*, which ſignifieth to grow fat, according to the ſaying of *Columella*, *Paleis vero quibus fere omnes regiones abundant Aſinus gliſcit*; that is to ſay, an Aſs groweth fat by eating chaffe which aboundeth in all Countries. This word *Glis*, ſignifieth not only a beaſt, but a piece of fat earth, and alſo a Thiſtle; whereupon *Sylvaticus* made this verſe:

Glis animal, glis terra tenax, glis lappa vocatur.

The *Italians* call it *Lo Galero*, *Lo Gliero*, or *Giero*; the *Spaniards*, *Liron*; the *French* likewiſe *Liron*, and *Rat*, *Liron*, and *Vngloyer*, and *Vngratvel*; the *Germans*, *Ein greul*; the *Helvetians*, *Ein rell*, or *Rel mus*, or *Gros baſelmus*; but our *Engliſh*, Dormouſe, ſeemeth to be a compounded word of *Dormiens mus*, that is, a ſleeping Mouſe. The *Polonians* call him *Seurez*. But concerning his name *Myoxus*, there is ſome queſtion among the Authors. For Saint *Jerom* writing upon the eleventh chapter of Leviticus,

viticus, and the 66. Chapter of Eſay, tranſlateth *Akbar* the *Hebrew* word for a Mouſe, *Glirem*, a Dormouſe, and he giveth this reaſon, becauſe all the Countries of the Eaſt, meaning *Græcia*, do ſay, that *Myoxus* is a Dormouſe. And this *Myoxus* by *Epiphanius* in his Anchoret is alleadged to prove the reſurrection. *Myoxus*, ſaith he, *Animal ſemeſtre moritur, & rurſus poſt tempore ſuo reviviſcit.* The Dormouſe at half a year old dyeth, and after her full time reviveth again: And in his Book againſt Heresies, he ſpeaketh thus to *Origen*; *Tradunt naturæ rerum experti, Myoxum latitare, & fœtus ſuo ſimul in eodem loco multos parere; quinque, & amplius: Viperas autem hos venari, & ſi invenerit totum latibulum ipſa Vipera, quum non poſſet omnes devorare pro una vice ad ſacietatem edit unum aut duos, reliquorum vero oculos expungit, & cibos affert, excæcatoſque enutrit, donec voluerit unumquemq; eorum devorare. Si vero contigerit, ut aliqui inexperti in hos incidant, ipſoſq; in cibum ſumant, venenum ſibi ipſis ſumunt, eos qui à Viperæ veneno ſunt enutriti. Sic etiam ô tu Origenes à Græca doctrina mente excæcatus, venenum his qui tibi crediderunt, evomuiſti, & factus es ipſis in edulium venenatum, ita ut per quæ ipſe injuria affectus es, per ea plus injuria afficeris.*

The deſcription of the Dormouſe out of *Epiphanius.*



The Philoſophers which are cunning in the nature of things do write, that the Dormouſe doth lie hid, and bring forth many young ones in the ſame place where he lyeth, five or more at a time, and the Vipers do hunt theſe to deſtroy them: now if the Viper finde their neſt, becauſe ſhe cannot eat them all at one time at the firſt, ſhe filleth her ſelf with one or two, and putteth out the eyes of the reſidue, and afterwards bringeth them meat and nouriſheth them, being blinde, until the time that her ſtomach ſerveth her to eat them every one. But if it happen that in the mean time, any man chance to light upon theſe Viper-nouriſhed-blinde-Dormice, and to kill and eat them, they poyſon themſelves through the venom which the Viper hath left in them: ſo fareth it with thee O *Origen*, for thou art blinded with the *Grecians* doctrine, and doſt vomit out that poyſon into their hearts which do believe thee, that thou art made unto them a venemous meat, whereby thou doſt wrong others, as thou haſt been wronged thy ſelf.

Py which it is manifeſt, that *Myoxus* is neither a Toad nor a Frog, but the Dormouſe. And the charm which is made for the Aſſes urine, as we have ſhewed already in his ſtory, *Gallus bibit, & non meiit, Myoxus meiit, & non bibit.* The Cock drinketh, and maketh not water, the Dormouſe maketh water, and never drinketh. But whether it be true or no that ſhe never drinketh, I dare not affirm: But this is certain, that ſhe drinketh but very ſeldom; and it ought to be no wonder that ſhe ſhould make water, for tame Conies, as long as they can feed upon green herbs, do render abundance of urine, and yet never drink.

Whether they render urine and drink not.

The *Grecians* alſo do call this Beaſt *Elayos*, although that word do likewiſe ſignifie a Squirrel. In *Meſia* a Wood of *Italy*, there is never found Dormouſe, except at the time of their littering.

They are bigger in quantity then a Squirrel, the colour variable, ſometimes black, ſometimes griſled, ſometimes yellow on the back, but alwayes a white belly, having a ſhort hair, and a thinner skin then the Pontique Mouſe. They are alſo to be found in *Helvetia*, about *Clarona*. It is a biting and an angry Beaſt, and therefore ſeldom taken alive. The beak or ſnowt is long, the ears ſhort and pricked; the tail ſhort, and not very hairy at the end; the middle of the belly ſwelleth down betwixt the breaſt and the loins, which are more narrow and truſſed up together, they are always very fat, and for that cauſe they are called *Lardironi*.

The quantity colour, and ſeveral parts.

Buck-maſt is very acceptable meat unto them, and doth greatly fatten them, they are much delighted with Walnuts, they climbe trees, and eat Apples, according to ſome; but *Albertus* ſaith more truly, that they are more delighted with the juyce then with the Apple. For it hath been of-

Their food.

tentimes found, that under Appſe-trees, they have opened much fruit, and taken out of it nothing but the kernels, for ſuch is their wit and policy, that having gathered an Apple, they preſently put it in the twiſt of a tree betwixt boughs, and ſo by ſitting upon the uppermoſt bough preſs it aſunder. They alſo grow fat by this means.

Nouriſhers and nouriſhing of Dormice.

In ancient time they were wont to keep them in coops or tuns, and alſo in Gardens paled about with board, where there are Beeches or Walnut trees growing, and in ſome places they have a kinde of earthen pot, wherein they put them with Walnuts, Buckmaſt, and Cheſnuts. And furthermore it muſt be be obſerved, that they muſt be placed in rooms convenient for them to breed young ones; their water muſt be very thin, becauſe they uſe not to drink much, and they alſo love dry places.

Titus Pompeius (as *Varro* ſaith) did nouriſh a great many of them encloſed, and ſo alſo *Herpinus* in his Park in *Gallia*. It is a Beaſt well ſaid to be *Animal Semiferum*, a creature half wilde, for if you ſet for them hutches, and nouriſh them in Warrens together, it is obſerved, that they never aſſemble, but ſuch as are bred in thoſe places: And if ſtrangers come among them which are ſeparated from them, either by a Mountain, or by a River, they deſcry them, and fight with them to death.

Society and charity in them.
Pliny.

They nouriſh their parents in their old age, with ſingular piety. We have ſhewed already, how they are deſtroyed by the Viper, and it is certain, that all Serpents lie in wait for them. Their old age doth end every Winter. They are exceeding ſleepy, and therefore *Martial* ſaith:

Somniculoſos illi porrigit glires.

They grow fat by ſleeping, and therefore *Auſonius* hath an elegant verſe;

Dic, ceſſante cibo, ſomno quis opimior eſt? glis.

Becauſe it draweth the hinder-legs after it like a Hare, it is called *Animal tractile*, for it goeth by jumps and little leaps. In the Winter time they are taken in deep ditches that are made in the Woods, covered over with ſmall ſticks, ſtraw, and earth, which the Countreymen deviſe to take them when they are aſleep. At other times they leap from tree to tree like Squirrels, and that they are killed with Arrows as they go from bough to bough, eſpecially in hollow trees: for when the Hunters finde their haunt wherein they lodge, they ſtop the hole in the abſence of the Dormouſe, and watch her turn back again: the ſilly Beaſt finding her paſſage cloſed, is buſied hand and foot to open it for entrance, and in the mean ſeaſon cometh the Hunter behinde her, and killeth her. In *Telling* they are taken by this means: The Countrey men going into the fields, carry in their hands burning Torches in the night time, which when the ſilly Beaſt perceiveth, with admiration thereof flocketh to the lights, whereunto when they were come, they were ſo dazled with the brightneſs that they were ſtark blinde, and might ſo be taken with mens hands.

The means to take theſe Dormice.

The uſe of the fleſh of theſe Mice.

The uſe of them, being taken, was to eat their fleſh, for in *Rhetia* at this day they ſalt it and eat it, becauſe it is ſweet and fat like Swines fleſh. *Ammianus Marcellinus* wondereth at the delicacy of his age, becauſe when they were at their Tables, they called for ballances to weigh their fiſh, and the members of the Dormouſe, which was not done (ſaith he) without any diſlike of ſome preſent, and things not heretofore uſed, are now commended daily. *Apitius* alſo preſcribeth the muſcles and fleſh incloſed in them, taken out of every member of a Dormouſe, beaten with Pepper, Nut-kernels, Parſenips, and Butter, ſtuffed all together into the belly of a Dormouſe, and ſewed up with thread, and ſo baked in an Oven, or ſod in a Kettle, to be an excellent and delicate diſh. And in *Italy* at this day, they eat Dormice (ſaith *Cœlius*,) yet there were ancient laws among the *Romans*, called *Leges cenſoriæ*, whereby they were forbidden to eat Dormice, ſtrange birds, Shel-fiſh, the necks of Beaſts, and divers ſuch other things. And thus much ſhall ſuffice for the deſcription of the Dormouſe.

The Medicines of the Dormouſe.

Pliny.

Marcellus.

Dormice being taken in meat, do much profit againſt the Buſimon; The powder of Dormice mixed with Oyl, doth heal thoſe which are ſcalded with any hot liquor. A live Dormouſe doth preſently take away all Warts being bound thereupon. Dormice, and Field-mice being burnt, and their duſt mingled with Hony, will profit thoſe which deſire the clearneſs of the eyes, if they do take thereof ſome ſmall quantity every morning. The powder of a Dormouſe, or field Mouſe rubbed upon the eyes helpeth the aforeſaid diſeaſe. A Dormouſe being flead, roaſted and anointed with Oyl and Salt, being given in meat, is an excellent cure for thoſe that are ſhort winded. The ſame alſo doth very effectually heal thoſe that ſpit out filthy matter or corruption. Powder of Dormice or field Mice, or young Worms, being mixed with Oyl doth heal thoſe that have Kibes on their heels, or Chilblains on their hands. The fat of a Dormouſe, the fat of a Hen, and the marrow of an Ox melted together, and being hot, not infuſed into the Ears, doth very much profit both the pains and deafneſs thereof.

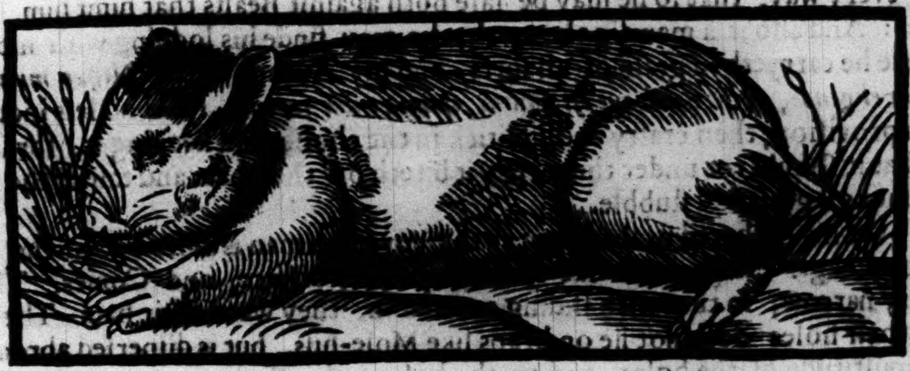
The fat of Dormice being boiled, as alſo of field-mice, are delivered to be moſt profitable for the eſchewing of the Palſie. The fat of a Dormouſe is alſo very excellent for thoſe which are troubled with a Palſie, or ſhaking of the joints. The skins and inward part of a Dormouſe being taken forth, and boiled with Hony in a new veſſel, and afterwards poured into another veſſel, will very effectually heal all diſeaſes which are incident to the ears, being anointed thereupon. The skin of a Dormouſe, or a Silkworm being pulled off, and the inward parts thereof being boiled in a new braſen veſſel with Hony, from the quantity of twenty ſeven ounces, even to three, and ſo kept, that when there is need of a certain bathing veſſel, the medicine being made warm and poured into the ears, doth help all pains, deafneſs, or inflammation of the ears. The fat of a Dormouſe is commended to be very medicinable for the aforenamed diſeaſes. The ſame is profitable for all pains, aches, or griefs in the belly. ;The urine of a Dormouſe is an excellent remedy againſt the Palſie. And thus much ſhall ſuffice concerning the medicinal vertues of the Dormouſe.

Sextus.

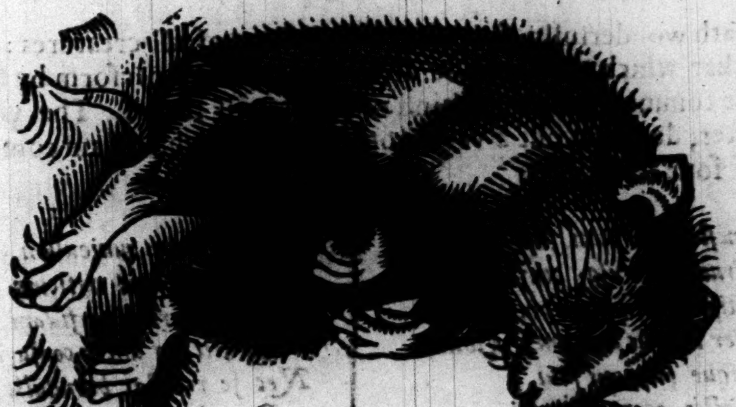
Pliny.

Marcellus.

Of the Hamſter *or* Cricetus, *the firſt figure taken by* Michael Horus.



The ſecond picture taken by John Kentmant, *and it is her faſhion and and protracture to lie thus when ſhe is angry, for ſo doth her colour appear both on the back and belly.*



This Beaſt is called in *Latine*, *Cricetus*; and in the *German* tongue *Hameſter*, *Traner*, and *Kornfaerle*, that is, Pigs of the corn. It is a little Beaſt, not much bigger then a Rat, dwelling in the earth of the roots of corn, ſhe is not drawn againſt her will out of her Cave at any time, but by pouring hot water or ſome other liquor. The head of it is of divers colour, the back red, the belly white, and the hair ſticketh ſo faſt to the skin, that it is eaſier to pull the skin from the fleſh, then any part of the hair from the skin. It is but a little Beaſt as we have ſaid, but very apt to bite and fight, and full of courage, and therefore hath received from nature this ornament and defence, that it hath a bony helmet, covering the head and the brain when it ſtandeth up upon the hinder-legs: It reſembleth both in colour and proportion a Bear. And for this cauſe ſome Writers have interpreted it

The names.

The deſcription.

Of the Arctomys.

to be the Beaſt called *Arctomys*, thus deſcribed by Saint *Jerom*. It is a creature (ſaith he) abounding in the Regions of *Paleſtina*, dwelling always in the holes of Rocks and Caves of the earth, not exceeding the quantity of a Hedgehog, and of a compounded faſhion, betwixt a Mouſe and a Bear.

But we have ſhewed already, that this is the *Alpine* Mouſe, and therefore we will not ſtand to confute it here. The name *Cricetus* ſeems to be derived from the *Illyrian* word, which we read in *Gelenius* to be *Skuzeczick*: this Beaſt, ſaith he, is common in the Northern parts of the world, and alſo in other places, in figure and ſhape it reſembleth a Bear, in quantity it never exceedeth a great Sorex. It hath a ſhort tail, almoſt like no tail, it goeth upon two legs, eſpecially when it is moved to wrath. It uſeth the fore-feet in ſtead of hands, and if it had as much ſtrength, as it hath courage, it would be as fierceful as any Bear. For this little Beaſt is not afraid to leap into the Hunters face, although it can do no great harm either with teeth or nails. It is an argument that it is exceeding hot, becauſe it is ſo bold and eager. In the uppermoſt chap it hath long and ſharp teeth, growing two by two. It hath large and wide cheeks, which they always fill, both carrying in, and carrying out, they eat with both, whereupon a devouring fellow, ſuch a one as *Stoſimus* a ſervant to *Plautus* was, is called *Cricetus*, a Hamſter, becauſe he filleth his mouth well, and is no pingler at his meat.

The voracity of the *Cricetus*.

The making of his den.

The fore-feet are like a Moulds, ſo ſhort, but not altogether ſo broad, with them he diggeth the earth, and maketh his holes to his den, but when he diggeth ſo far as he cannot caſt the earth out of the hole with them, then he carryeth it forth in his mouth. His Den within he maketh large, to receive corn, and proviſion of fruit for his ſuſtentation, whereinto he diggeth many holes, winding and turning every way, that ſo he may be ſafe both againſt Beaſts that hunt him, and never be killed in his Den: And alſo if a man dig the earth, he may finde his lodging with more difficulty. In the harveſt time he carryeth in grain of all ſorts, and my Author ſaith, *Neque minus in colligendo induſtrius, quam in eligendo, conſervandoque eſt aſtutus, optima enim reponit.* He is no leſs induſtrious in the gathering of his proviſion, then crafty and politick in the choiſe, and keeping it, for it lays up the beſt; and leſt that it ſhould rot under the earth, it biteth off the fibres and tail of the grain, laying up the reſidue amongſt graſs and ſtubble.

It lies gaping over his gathered grain, even as the covetous man is deſcribed in the Satyre ſleeping upon his mony bags. It groweth fat with ſleep like Dormice, and Conies. The holes into the Cave are very narrow, ſo that with ſliding out and in, they wear their hair. The earth which cometh out of their holes doth not lie on heaps like Mole-hils, but is diſperſed abroad, and that is fitteſt for the multitude of the holes, and all the holes and paſſages are covered with earth: but that hole which for the moſt part he goeth out at, is known by a foot path, and hath no hinderance in it, the other places at which ſhe goeth out are more obſcure and hid, and ſhe goeth out of them backwards. The male and female do both inhabit in one Cave, and their young ones being brought forth, they leave their old Den and ſeek them out ſome new habitation. In the male there is this perfidity, that when they have prepared all their ſuſtenance, and brought it in, he doth ſhut out the female, and ſuffereth her not to approach nigh it, who revengeth his perfidiouſneſs by deceit. For going into ſome adjoyning Cave, ſhe doth likewiſe partake of the fruits which were laid up in ſtore by ſome other ſecret hole in the Cave, the male never perceiving it.

So that nature hath wonderfully fore-ſeen the poverty of all creatures: neither is it otherwiſe amongſt men, for that which they cannot do by equity, they perform by fraud. This alſo cometh in the ſpeech of the common people, againſt one that will thrive. The young Country wenches concerning this matter, do chant out a verſe not unpleaſant, which I am contented to expreſs in Iambicks, conſiſting of four feet:

Hamſter ipſe cum ſuo,
Prudens catuſq; conjuge,
Stipat profundum pluribus
Per tempus antrum frugibus,
Poſſitque ſolus ut frui,
Lectis acervis hordei
Avarus antro credulam
Extrudit arte conjugem.
Serva, inquit, exiens foras,
Cœli ſerena & pluvias.
Sed fœminis quis inſitam,
Vincant dolis aſtutiam?

Novum parans cuniculum,
Furatur omne triticum.
Egens maritus perfidam
Quærit per antra conjugem,
Nec ſe repellat blandulis
Demulcet inventam ſonis,
Ille eſſe jam communia
Servata dum ſinit bona.
At perfidus multiplices
Opponit intus obices.
Rurſus fruuntur mutuis
Antris, cibis, amplexibus.

His meat and food.

This Beaſt doth devour all kinde of fruit, and if he be nouriſhed in a houſe he eateth bread and fleſh: he alſo hunteth the field Mice. When he taketh his meat, he raiſeth himſelf upon his fore-feet: he is alſo wont with his fore-feet to ſtroke his head, ears, and mouth, which thing the Squirrel and the Cat do alſo, and as the Beaver amongſt thoſe creatures which live as well by water as by land: but although in his body he ſeemeth but ſmall, notwithſtanding he is by nature apt to fight, and very furious being provoked, with his carriage in his mouth: he beateth away with both his feet that which reſiſteth him, directly invading his enemy: In the ſpirit and aſſaulting of his mouth he is wayward and threatning, from whence our Country men were accuſtomed to ſay of any one which was angry; he breatheth his wrath out of his mouth like a Hamſter: *Du ſprueſt vuie ein Hamſter*: neither is he eaſily affrighted, although he be far unequal unto thoſe in ſtrength with whom he is in combate.

The anger and fury of this beaſt.

Wherefore ſome do give it in the place of a Proverb, that our Countrymen do call a man which is madly raſh, ***Ein tollen Hamſter***, as *fool-hardy* as a *Hamſter*. He flieth from any one that doth ſharply reſiſt him, and doth greedily follow after them that flie from him. I my ſelf ſaw one of theſe, who by aſſaulting a Horſe gat him by the noſe, and would never leave his hold until he was killed with a ſword: He is taken by divers means, for he is expelled either by hot water poured into his den, or is choaked within; or being digged up with a mattock or ſpade he is killed; or by Dogs. He is ſometimes pulled out by the Fox, or hurt: or oppreſſed by ſome ſnare, a great weight being put about it: or to conclude, he is taken by Art alive, and that in the night time, when he goeth to ſeek his prey, for in the day time for the moſt part he lyeth hid.

Of the taking of this beaſt.

Before his uſual Cave (as I have ſaid) he is taken by the path which is worn, by a pot which is put into the earth, and afterward made plain about it like other places of the field; there is earth caſt into the bottom of the pot to the deepneſs of two fingers, above every where covering the pot there is placed a ſtone, which is held up by a piece of wood, to which there is bound below a fragment of bread: In the ſpace between the Cave and the pot there are crums of bread ſcattered, which he following and leaping into the pot, the wood falling, he is taken. Being taken after the manner of other beaſts, he toucheth no food. If a broad ſtone, ſuch an one with which they cover pavements, or of which they make roof tiles, ſhall be joyned unto the pot, and the beaſt be taken, he will be very hardly known in the morning; for the ſpirit of the beaſt being ſhut in, and waxing wroth, piercing for thinneſs doth moiſten the ſtone. The skins of Hamſters are very durable, of which there are certain long coats which come down unto the heels, and divers coloured cloaks made, which the women of *Miſena* and *Sileſia* do uſe, and account them very honorable, of a black and red colour, with broad guards or edges of the skins of Otters: the ſame coats are for the moſt part valued at the price of fifteen or twenty *Renenſian* crowns: for it doth out-wear in length three or four garments made either of linnen or woollen cloath.

The uſe of their skins.

In *Turingia* and *Miſena* this beaſt is frequent, notwithſtanding not in all places, for in *Turingia* his chiefeſt abode is about *Efurdanus*, and *Salcenſis* in *Miſena*, about *Lipſia*, and the field *Pegenſis*, the plentifulleſt and moſt fertileſt places of both thoſe Regions. In *Luſatia* about *Radeburge*, he is digged out of thoſe places where Painick groweth. At *Mulberge* and *Albis*, he is found in the Vineyards, for he is alſo fed with ripe Grapes. Our Country men are wont to burn a living Hamſter in a pot, being ſhut, for the medicines of Horſes. It hath been ſeen that one of theſe hath leaped up and caught a Horſe by the noſe, never letting go his hold until ſhe was cut off with a ſword. The skin is of three or four different colours, beſides the ſpotted ſides, and therefore the skin is very pretious. They abound in *Turingia* where the ſoil is good, and there is alſo great ſtore of grain.

Of the NORICIAN MOUSE.

THe *Norician* Mouſe is called in *Latine*, *Citellus*, and it keepeth like the wilde Mice in the caves and dens of the earth. The body is like to a domeſtical Weeſils, long and ſlender, the tail very ſhort, the colour of the hair like to a gray Conies, but more bright. It wanteth ears like a Mole, but it hath open paſſages in ſtead of ears, wherewithal it heareth the ſound, as you ſhall ſee in many birds. The teeth are like the teeth of Mice, and of their skins (although they be not very precious) they uſe to make garments. In *Germany* they call it *Pile* and *Ziſel*, and of this *German* word was the *Latine Citellus* feigned; and it appeareth by *Agricola*, that there are two kindes of theſe; one greater, which are call'd *Zyſell* and *Zeiſeile*, and another leſſer (called *Pile*) which may be the ſame that is alſo called *Bilchmuſs*, and differeth from other, becauſe it is uſed for meat. Theſe are bred in *Croatia*, and in the Country about *Venice*. They have a ſtrange ſmell or ſavour, which is ſaid to be hurtful to the head. They eat both ſalted and hung in the ſmoke, and alſo freſh and new killed. With their skins they edge the skirts of garments, for it is as ſoft as the skin of a Hare; and beſide the common nature of Mice they are tamed. They alſo have very large cheeks, whereinto they gather an innumerable quantity of grain, and carry it into their den, as it were in bags againſt the Winter. They live thirty and forty together in a Cave, and are not driven forth but by infuſion of hot water. They gather great ſtore of Nuts into their Caves, and therefore as well as for their fleſh do men hunt and ſeek after them.

The name, deſcription, and diſpoſition. *Agricola.*

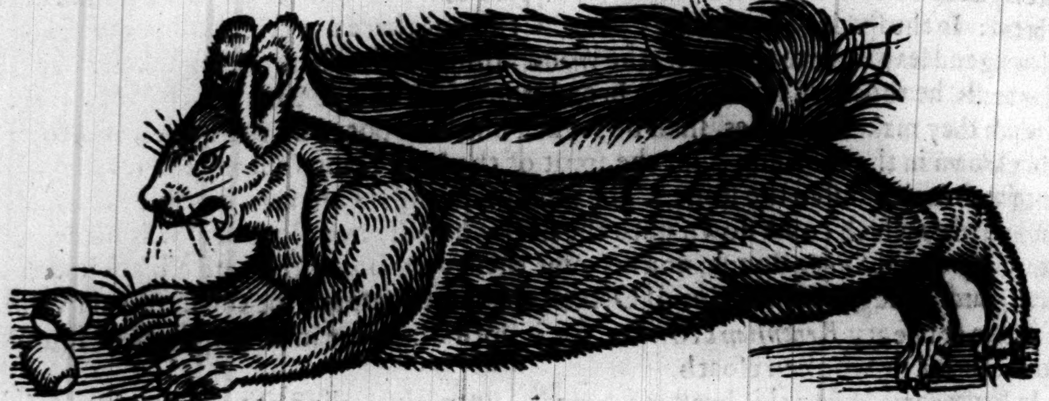
Genelius.

Of the MOUSE PONTIQVE.

THe name of this Mouſe is given unto it from the Iſland out of which it was firſt brought, named *Pontus*, and for this cauſe it is alſo called *Venetus*, becauſe it was firſt of all brought into *Germany* from *Venice*. It is called alſo *Varius* by *Idorus*, from whence cometh the *German*

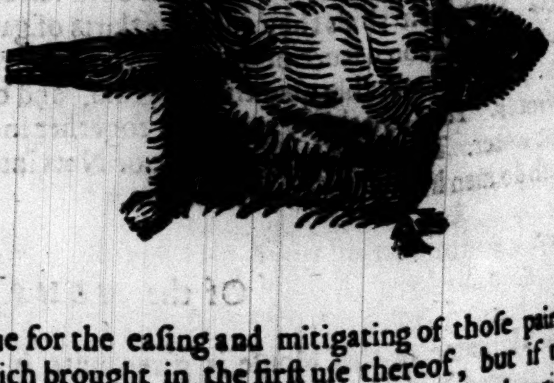
Olaus mag. *Agricola.*

word *Vutrck*, from the diverſity of the colour *Grau vuerck*. It is called alſo *Pundtmuſs*, as it were *Ponticus mus*, or rather of *Bundt*, becauſe they were wont to be brought in bundles to be ſold fifty together, and they were ſold for twenty groats, *Volaterranus*, and *Hermolaus* are of this opinion, that the white one in this kinde, be called of the *Italians*, *Armelline*, and the *Germans*, *Hermelin*, but we have promiſed already to prove that *Hermelin* is a kinde of Weeſil, which in the Winter time is white, by reaſon of extremity of cold, and in the Summer returneth into her colour again, like as do the Hares of the *Alpes*. This *Pontique* Mouſe differeth from others only in colour, for the white is mingled with aſh colour, or elſe it is ſandy and black, and in *Polonia* at this day they are found red and aſh coloured. Their two lowermoſt teeth before are very long, and when it goeth, it draweth the tail after it like Mice; when it eateth it uſeth the fore-feet in ſtead of hands, and feedeth upon Walnuts, Cheſnuts, Filbeards, ſmall Nuts, Apples, and ſuch like fruits. In the Winter time they take ſleep in ſtead of meat; And it is to be remembred, that the *Polonians* have four kindes of pretious skins of Mice which they uſe in their garments, diſtinguiſhed by four ſeveral names. The firſt of griſel colour, called *Popieliza*. The ſecond is called *Gronoſthaii*, a very white Beaſt all over, except the tip of the tail which is all black, and this is the *Hermelin*.



The third is called *Novogrodela*, from the name of a Town, and this is white mingled with griſel, and this is alſo a kinde of *Pontique* Mouſe. The fourth *Uvieuvorka*, of a bright Cheſnut colour, and this is the Squirrel, for they call Squirrels, Weeſils, and Hermelins all by the name of Mice. Theſe *Pontique* Mice have teeth on both ſides, and chew the cud. In the Winter time as we have ſaid they lie and ſleep, eſpecially the white ones, and their ſenſe of taſte doth excel all other, (as *Pliny* writeth) they build their neſts and breed like common Squirrels.

Their skins are ſold by ten together, the two beſt are called *Litzſcbna*; the third, a little worſe, are called *Craſna*, and the fourth next to them *Pocraſna*, and the laſt and vileſt of all *Moloiſcbna*: with theſe skins they hem and edge garments; and in ſome places they make Canonical garments of them for Prieſts, unto which they ſew their tails to hang down on the skirts of their garments; of which cuſtom *Hermolaus* writeth very excellently in theſe words. *Inſtruxit, & ex muribus, luxuriam ſuam vita, alios magnis frigoribus, alios medio anni tempore, a ſeptentrionibus petendo, armamus corpora, & debellamus animos.* That is to ſay; The life of man hath learned to be prodigal, even out of the skins of Mice, for ſome they uſe againſt extremity of cold, and they fetch others out of the fartheſt Northern parts, for the middle part of the year: Thus do we arm and adorn our bodies, but put down and ſpoil our mindes.



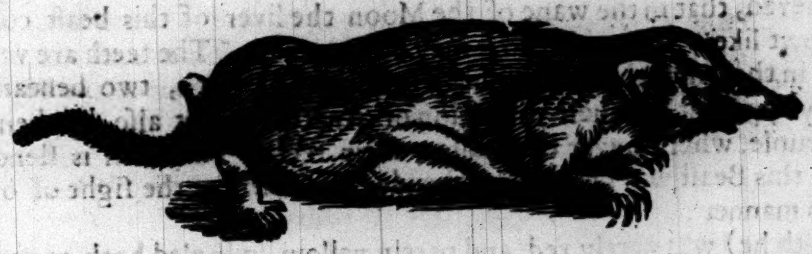
Beſide, there is a flying *Pontique* or *Scythian* Mouſe, which we may call the broad Squirrel Mouſe, whoſe skin is here expreſſed as you may ſee, and for the deſcription thereof, I have thought good to add an Epiſtle of *Antonius Schnebergerus* the *Lituanian* of *Vilna* unto *Geſner*, in theſe words following:

I ſend unto thee a little skin, the upper place of the hairs thereof being of a white aſh colour, but the root of the hair or inner part thereof is a black brown. They call it *Popyelycza Lataacza*, that is, a *Pontique* flying Mouſe: It is always ſo moiſt, that it can never be dreſſed by the Skinner, or Lether-dreſſer.

The people uſe it to wipe ſore running eyes, having a perſwaſion that there is in it a ſingular vertue for the eaſing and mitigating of thoſe pains: but I think that the ſoftneſs was the firſt cauſe which brought in the firſt uſe thereof, but if the hairs do not cleave hard to the skin, it cannot be done without danger. Alſo the hairs hanging as it were in a round circle againſt or above the two former feet, they call wings, wherewithal they are thought to flie from tree to tree. Thus far *Antonius*. *Geſner* after the receit of theſe skins, being willing to preſerve them from moths, becauſe they were raw, for experience ſake gave them to a leather dreſſer, who preſently dreſſed them with Vinegar, and the Lees of Wine, ſo that it appeareth the Skinners of *Lituania* had not the skill how to dreſs it.

After they were dreſſed they were ſo ſoft, that they ſtretched above meaſure, ſo that every one of them were ſquare, that is to ſay, their length and breadth were equal, for they were two palms or eight fingers broad: and no more in length, the head and tail excepted: wherefore it may well be called a ſquare Mouſe, or *Sciurus quadratus*, becauſe we are ſure of the former, but not of the flying; the tail was as long as four or five fingers are broad, being rough like the tail of other Squirrels, but beſet with black and white hairs, the whole colour both of the belly and upper part was whitiſh, as we have ſaid, but black underneath, the hair is ſo ſoft as any ſilk, and therefore fit for the uſe of the eyes. The ears ſhorter and rounder then a Squirrels, the feet did not appear by the skin: the neather part was diſtinguiſhed from the upper part, by a certain viſible line, wherein did hang certain long hairs, which by their roughneſs and ſolidity under the thin and broad frame of their body, might much help them to flie, even as broad fiſhes ſwim by the breadth of their bodies, rather then by the help of their fins. The *Helvetians* wear theſe skins in their garments. It is reported by *Ælianus*, that the Inhabitants of *Pontus*, by making ſupplication to their Gods, did avert and turn away the rage of Mice from their Corn-fields, as the *Egyptians* did, as we have ſaid before in the ſtory of the vulgar Mouſe.

Of the *Mouſe* called the *Shrew*, or the *Erd ſhrew*.



The word *Hanaka* of the *Hebrews* remembred in the 11. chapter of Leviticus, is diverſly interpreted by the tranſlators, ſome call it a reptile beaſt which always cryeth: ſome a reptile flying beaſt; ſome a Horſe-leach, or bloud-ſucker; ſome a Hedgehog; and ſome a Beaver, as we have ſhewed before in the Hedgehog. But the *Septuagints* tranſlate it *Mygale*; and S. *Jerom*, *Mus araneus*, that is, a Shrew. *Dioſcorides* calleth it *Miogale*; the *Germans* and *Helvetians*, call it *Mutzer*; in ſome parts of *Germany*, from the figure of the ſnowt it is called *Spitzmus*, by ſome *Ziſſmuſs*, from the fiction of his voice; and ſome *Groſs Ziſſmuſs*; the *Hollanders* call it *Moll Muſſe*, becauſe it reſembleth a Mole. *Mathaolus* for the *Italians* call it *Toporagno*; that is, a Mole-ſhrew. The *Helvetians* call it *Biſemmuſs*, that is, a Musk-mouſe, becauſe it being dryed in a furnace ſmelleth like Musk. The skin pulled from the fleſh, ſmelleth beſt by it ſelf, and yet the fleſh ſmelleth well alſo, and ſo do the excrements. But to return to the *Greek* name, why it ſhould be call'd *Mygale*, there is not one opinion amongſt the learned: but I do moſt willingly condeſcend to the opinion of *Aetius*, who writeth that it is called *Mygale*, becauſe in quantity it exceedeth not a Mouſe, and yet in colour it reſembleth a Weeſil, and therefore it is compounded of two words, *Mys*, a Mouſe, and *Galee*, a Weeſil.

Amyntas is of opinion, that it is ſo called, becauſe it is begot betwixt a Mouſe and a Weeſil, but this is neither true nor probable. For is it likely that Weeſils and Mice will couple together in carnal copulation, whoſe natures are ſo contrary, the one living upon the death of another, that is, the Weeſil upon the Mouſe? And beſide the difference of quantity betwixt them, maketh it impoſſible to have ſuch a generation. The other derivation of *Mygale*, which is made by *Rodolphus* writing upon Leviticus, fetching *Mygale* from *Mus guloſus*, that is, a devouring Mouſe, it is againſt the order of all good Linguiſts, to derive *Greek* words from *Latine*, but rather conſonant to learning, to fetch the *Latine* from the *Greek*.

There is no leſs inquiry about the *Latine* name, why it ſhould be called *Mus araneus*, ſeeing *Aranea* ſignifieth a Spider. This Mouſe ſaith *Albertus*, is a red kinde of Mouſe having a ſmall tail, a ſharp voice, and is full of poyſon, or venom: For which cauſe Cats do kill them, but do not eat them. *Sipontinus* writeth thus, of this Shrew; *Mus araneus*, *exiguum animal*, *atq; leviſſimum eſt*, *quod aranea modo tenuiſſimum filum*, *& gladii aciem conſcendit*. That is to ſay, this Shrew-mouſe is a little and light creature, which like a Spider climeth up upon any ſmall thread, or upon the edge of a ſword: and therefore you ſee, they derive the *Latine* name from his climing like a Spider.

But in my opinion it is more reaſonable, to derive it from the venom and poyſon which it containeth in it like a Spider. For which cauſe *Silvaticus* writeth thus; *Mugali id eſt*, *draco marinus*,

nus, & animal venenoſum, puſillum muri ſimile: nam & araneum piſcem, propter venenum pungentibus inſitum ſpinis, veteres ophim, id eſt, ſerpentem nominarunt, & hodie quam vulgo draconem vel dracenam. That is to ſay; There is a fiſh of the Sea, and a little Beaſt on the Earth like a Mouſe, which by a general word are called *Mugale*, and the Spider-fiſh called at this day a Dragon, or Dragoniſt, was in ancient time called a Serpent, becauſe by his prickly fins, he did poyſon thoſe which were ſtrucken by him. And concerning the deſcription of this beaſt, it may be taken from the words of an ancient *Engliſh* Phyſitian, called Doctor *William Turner*.

I have ſeen (ſaith he) in *England*, the Shrew-mouſe of colour black, having a tail very ſhort, and her ſnowt very long and ſharp, and from the venemous biting of this Beaſt, we have an *Engliſh* Proverb or Imprecation, I beſhrow thee, when we curſe or wiſh harm unto any man, that is, that ſome ſuch evil as the biting of this Mouſe may come unto him. The *Spaniards* call this Beaſt *Raton Pequenno*; the *Illyians*, *Viemedkamys*; and the *Polonians*, *Kerit*. They were wont to abound in *Britany*, as *Hermolaus* writeth.

Samonicus.
Vegetius.

They are alſo plentiful in *Italy* beyond the Mountains *Apennine*, but not on this ſide (as *Pliny* writeth) yet in the hither parts of *Italy* and *Germany*, there are many found, eſpecially in the Country neer *Trent*, in the Valley *Anania*, where this is admirable, that by reaſon of the coldneſs of that Country their bitings are not venemous. For the Scorpions there are not venemous, although in other places of *Italy* they poyſon deeply. This Beaſt is much leſs then a Weeſil, and of an aſh colour, in moſt places like a Mouſe, although the colour be not always conſtant.

Aetius.

The eyes are ſo ſmall, and beneath the proportion of her body, that it hath not been unjuſtly doubted of the Ancients, whether they were blinde or no, but in their beſt eſtate their ſight is very dull. And for this cauſe the ancient *Egyptians* did worſhip it: for as they held opinion, that darkneſs was before light, ſo they deemed that the blinde creatures were better then the ſeeing. And they alſo believed, that in the wane of the Moon the liver of this beaſt conſumed. It hath a long and ſharp ſnowt like a Mole, that ſo it may be apt to dig. The teeth are very ſmall, but ſo as they ſtand double in their mouth, for they have four rows of teeth, two beneath, and two above, which are not only apparent by their diſſection or Anatomy, but alſo by their bitings, for their wounds are Quadruple, whereſoever they faſten their teeth. Their tail is ſlender and ſhort. But the deſcription of this Beaſt was better apprehended by *Geſner*, at the ſight of one of them, which he relateth on this manner:

The colour (ſaith he) was partly red, and partly yellow, mingled both together, but the belly white. The hinder-feet ſeemeth to cleave to the body or loins. It ſmelleth ſtrongly, and the ſavour did bewray or ſignifie ſome ſecret poyſon. The tail about three fingers long, beſet with little ſhort hairs. The reſidue of the body was three fingers long. The eyes very ſmall and black, not much greater then Moles, ſo that next to the Mole they may juſtly be called, the leaſt ſighted creature among all four-footed Beaſts; ſo that in old age they are utterly blinde by the Providence of God, abridging their malice, that when their teeth are grown to be moſt ſharp, and they moſt full of poyſon, then they ſhould not ſee whom nor where to vent it.

They differ as we have ſaid in place and number, from all four-footed Beaſts, ſo that they ſeem to be compounded and framed of the teeth of Serpents and Mice. The two fore-teeth are very long, and they do not grow ſingle as in vulgar Mice; but have within them two other ſmal and ſharp teeth. And alſo thoſe two long teeth grow not by themſelves, as they do in other Mice, but are conjoyned in the reſidue, in one continued rank. They are ſharp like a ſaw, having ſharp points like needles, ſuch as could not be ſeen by man, except the tips of them were yellow. Of either ſide they have eight teeth, whereas the vulgar Mice have but four, beſide the two long fore-teeth, which alſo ſeem divided into two or three, which except one mark diligently, he would think them to be all one.

Arnoldus.
Ælianus.

It is a ravening Beaſt, feigning it ſelf gentle and tame, but being touched, it biteth deep, and poyſoneth deadly. It beareth a cruel minde, deſiring to hurt any thing, neither is there any creature that it loveth, or it loveth him, becauſe it is feared of all. The Cats, as we have ſaid, do hunt it and kill it, but they eat not them, for if they do, they conſume away in time. They annoy Vines, and are ſeldom taken, except in cold; they frequent Ox-dung, and in the Winter-time repair to houſes, gardens, and ſtables, where they are taken and killed.

If they fall into a Cart-road, they die and cannot get forth again, as *Marcellus*, *Nicander*, and *Pliny* affirm. And the reaſon is given by *Philes*, for being in the ſame, it is ſo amazed, and trembleth, as if it were in bands. And for this cauſe ſome of the Ancients have preſcribed the earth of a Cart-road, to be laid to the biting of this Mouſe for a remedy thereof. They go very ſlowly, they are fraudulent, and take their prey by deceit. Many times they gnaw the Oxes hoofs in the ſtable. They love the rotten fleſh of Ravens; and therefore in *France*, when they have killed a Raven, they keep it till it ſtinketh, and then caſt it in the places where the Shrew-mice haunt, whereunto they gather in ſo great number, that you may kill them with ſhovels. The *Egyptians* upon the former opinion of holineſs, do bury them when they die. And thus much for the deſcription of this Beaſt. The ſucceeding diſcourſe toucheth the medicines ariſing out of this Beaſt; alſo the cure of her venemous bitings.

The Medicines of the Shrew.

Marcellus. The Shrew, which falling by chance into a Cart-rode or track, doth die upon the ſame, being burned, and afterwards beaten or diſſolved into duſt, and mingled with Gooſe greaſe, being rubbed or anointed upon thoſe which are troubled with the ſwelling in the fundament coming by the cauſe of ſome inflammation, doth bring unto them a wonderful and moſt admirable cure and remedy. The *Pliny.* Shrew being ſlain or killed, hanging ſo that neither then nor afterwards ſhe may touch the ground, doth help thoſe which are grieved and pained in their bodies, with ſores called fellons, or biles, which doth pain them with a great inflammation, ſo that it be three times invironed or compaſſed about the party ſo troubled. *Pliny.* The Shrew which dyeth in the furrow of a Cart-wheel, being found and rowled in Potters clay or a linnen cloth, or in Crimſon, or Scarlet woollen cloth, and three times marked about the Impoſtumes, which will ſuddenly ſwell in any mans body, will very ſpeedily and effectually help and cure the ſame.

The tail of a Shrew being cut off and burned, and afterwards beaten into duſt, and applyed or anointed upon the ſore of any man, which came by the biting of a greedy and ravenous Dog, will in very ſhort ſpace make them both whole and ſound, ſo that the tail be cut from the Shrew when ſhe is alive, not when ſhe is dead, for then it hath neither good operation, nor efficacy in it. The *Hippocrates.* former hoofs of a Horſe being ſcraped, and the ſame fragments or ſcantlings thereof being beaten in the duſt or earth, which hath been digged up by a Shrew, in four meaſures of water, poured down the mouth of a Horſe which is troubled with any pain or wringing in his bowels, will ſoon give him both help and remedy. The Shrew being either applyed in drink, or put in the manner and form of a plaiſter, or hanged upon the ſore which he hath bitten, is the moſt excellenteſt, and moſt medicinable cure for the helping and healing thereof. A preſervative againſt poyſon, would be an excellent remedy, that neither man nor any other living creature, ſhould be bitten if they ſhould leave or would want that ſuperſtition called an enchantment againſt poyſon, being hanged about the neck, whereof we will ſpeak more in the curing of the bites of this Beaſt.

That the biting of a Shrew is venemous, and of the reaſon of healing in this kinde.

Pliny. In *Italy* the biting of a Shrew is accounted for a very ſtrong poyſon, and that except there be ſome medicine very ſpeedily applyed for the curing and healing thereof, the party ſo bitten will die. Theſe Shrews are truly ſo venemous and full of poyſon, that being ſlain or killed by Cats, whoſe nature is to kill whatſoever Mice they take, they will not offer to touch or eat the leaſt part of them.

Marcellus. But the biting of a female Shrew is moſt obnoxious and hurtful when ſhe is great with young, but moſt dangerous of all when ſhe biteth any one which is great with young, either a woman or any other Beaſt whatſoever, her ſelf being alſo with young, for then it will hardly be cured.

Dioſcorides. If a Shrew ſhall bite any creature while ſhe is great with young, the puſhes or biles will in time be broke which they make, and will come unto a very great and malignant wound and ſore. If the Shrew do alſo bite any creature during the time ſhe is with young, ſhe will preſently leap off, notwithſtanding ſhe biteth more dangerous. *Avicenna.* There is nothing which do more apparently explain and ſhew the biting of a Shrew then a certain vehement pain and grief in the creature which is ſo bitten, as alſo a pricking over the whole body, with an inflammation or burning heat going round about the place, and a fiery redneſs therein, in which a black puſh or like ſwelling with a watery matter, and filthy corruption doth ariſe, and all the parts of the body which do joyn unto it ſeem black and blew with the marvellous great pain, anguiſh, and grief, which ariſeth and proceedeth from the ſame.

When the puſh or bile which cometh by the occaſion of a Shrew cleaveth or is broken, there proceedeth and iſſueth forth a kinde of white fleſh, having a certain rinde or skin upon it, and ſometime there appeareth in them a certain burning, and ſometimes the ſame is eaten in and falleth out, but in the beginning there is a moſt filthy green corruption and matter which floweth in the ſame, afterward it is putrefied, and eaten in, and then the fleſh falleth forth; *Dioſcorides.* the wringings alſo of the inward parts, the difficulty of voiding the urine, and a corrupted ſweat doth follow and accompany the ſame.

But *Avicenna* affirmeth, that in what place ſoever this Beaſt ſhall bite, the ſores thereof with great anguiſh will pant or beat, and that in every hole wherein his venemous teeth have entred, there will a certain fiery redneſs appear, the skin whereof being broken, there will come a very white and mattery ſore, which will breed much pain and trouble in all the parts of the body for the moſt part. *Aegineta.* The ſores or wounds which are made alſo by this Beaſt are very manifeſtly known by the marks of the fore-teeth ſtanding all in a row together, as alſo by the bloud which iſſueth from the wound, being at the firſt pure, clear, and exceeding red, but afterwards corrupt, blackiſh, and full of putrefaction.

There do alſo divers bunches ariſe in the fleſh uſually after the biting of this Beaſt, which if any man ſhall break, he ſhall ſee the fleſh which lyeth under them corrupted, and divided with

Avicenna. certain clefts or rifts in the ſame. Moreover the nature of this Beaſt is ſuch, that for the moſt part he doth covet to bite thoſe whom he can come unto by the ſtones or genital, not only men, but alſo all other brute Beaſts whatſoever: and thus much ſhall ſuffice concerning the biting of this Beaſt.

Dioſcorides. Wormwood being beaten or bruiſed ſmall, ſtrained in a fine linnen cloth, and mingled in Wine, given to the party, either man or woman, in Wine to drink, who is bitten by a Shrew, will procure him preſent eaſe and remedy. The ſame alſo is an excellent remedy for the bitings or ſtingings of a Sea-dragon. *Pliny.* Vinegar is very medicinable for the bitings of the Shrew, and of Dogs, as alſo for the fiſh called by the *Latines*, *Scolopendra*, (which voideth all her bowels out until the hook come forth, wherewith ſhe is taken, and then ſucketh them up again) the Scorpion and all other venomous Serpents.

But the *Græcian* Phyſitians affirm, that the ſame ought to be mingled with other medicines for the helping of the aforeſaid diſeaſes, as to take the aſhes of the Shrew being burnt, the gum or liquor of the Herb called Fennil-giant, dryed Barly beaten into ſmall powder, Muſtard-ſeed pounded ſmall with the Herb called Purple, or Mothmullein, and mingle them all together with Vinegar, and being ſo applyed they will preſently cure the aforeſaid ſtings or bitings.

Avicenna. Garlick being bruiſed, and the juyce thereof anointed upon the place which was bitten by a Shrew, will preſently expel the pain, and wholly cure the ſore. For the expelling of the ſuperfluities of the parings of the dead fleſh, growing round about the ſore, being not caſt away but remaining thereon. *Aetius.* Take Cummin and cover the wound or biting therewith, then apply Garlick being beaten into Oyl thereunto, and anoint the places about the ſore, as alſo the ſore it ſelf very diligently, and in very ſhort ſpace of time it will cauſe the ſame to fall away of it own accord. *Dioſcorides.* For the healing alſo of the bites of this Beaſt: Take Garlick, the leaves of a Fig-tree, and Cummin, mingle them very well all together, till they come to a mollifying or temperate ſubſtance; then take the ſame, and faſhion it in the form or manner of a plaiſter, and it will very ſpeedily and effectually cure the ſore.

Geoponica. The ſeed or leaves of Coleworts, being beaten together with Vinegar, and the herb call'd *Aſſa fœtida*, is very good and profitable to be applyed either to the bites of this Beaſt, or a ravening Dog. The dung of a Dog being taken and anointed upon either Man or Horſe which hath been bitten by a Shrew, will be an excellent remedy both for the curing and healing them of the ſame. The hoof of a Ram being dryed, beaten into powder & afterwards mixed with Hony, will be likewiſe very good for thoſe which are bitten with the ſame Beaſt, ſo that they be firſt tempered and faſhioned in the manner of a plaiſter, and then applyed thereunto. The little white ſtalks which proceed from a black Fig, being beaten with the leaves of the herb called Moth-mullein, Wax, and Vinegar, until they come unto a mollifying juyce or ſalve, will be an excellent remedy againſt the biting of the Shrew, being anointed thereupon.

Pliny. The young or tender ſtalks of a wilde Fig-tree, be they never ſo few or ſmall, being firſt ſteeped in Wine, then lapped in a leaf of the ſame Tree, and ſo applyed unto the ſtings and bites of Scorpions, and the Shrew, will in very ſhort time cure and heal the ſame. Provided always that the wound be well and diligently bathed or waſhed, before any thing be put or applyed thereunto.

Dioſcorides, *Avicenna*, and *Actuarius*, do affirm, that the excellenteſt, and medicinableſt cure for the bites of a Shrew is this: To take the Spleen of the ſame Beaſt, and beat it together with Vinegar, and the Gum called *Galbanum*, then to anoint it or rub it upon the ſore, and it will preſently expel away all pain, and in ſome ſhort ſpace altogether heal it. *Aetius.* If the red bunches or ulcers which do uſually grow about the bites of a Shrew, do fortune to break; take very ſharp and ſtrong brine or pickle, and rub it both about, and within the ſore, and afterwards apply Barly being burned and beaten into ſmall duſt or powder thereunto, which medicine although it ſeem ſomewhat grievous and painful, yet it is very good and profitable for the expelling either of the ſtings of Scorpions, or the bites of the Shrew or ravenous Dog.

The genital of a Hare being beaten into powder mingled with Vinegar, and anointed upon the bites of a Shrew, doth ſpeedily cure them. Wilde Mallows being mingled with thoſe Mallows that grow in the Garden, have in them a very effectual force and power to cure all ſtings or venomous bitings, eſpecially of Scorpions, Shrews, Waſps, and ſuch like ſtinging creatures.

The Shrew being cut and applyed in the manner of a plaiſter, doth effectually cure her own bites. The Shrew being killed and anointed all over with Oyl, and dirt or mire, applyed unto the Ulcers or red ſwellings which come by her venomous teeth, will very ſpeedily procure them to break. The Shrew being cut or beaten into ſmall pieces, dryed into powder, mixed with Vinegar, and faſhioned in the form of a plaiſter, will very ſpeedily and effectually cure the bites of a Shrew, whether ſhe be great with young or not, ſo that they be well applyed thereunto.

But there are ſome which do think it nothing convenient to mingle the Shrew with any other thing whatſoever, but that it is only after this manner to be applyed by it ſelf, as to take it burned or dry it, and then to pound it in powder, and ſo to ſprinkle it in the wound or ſore, which in very ſhort time will eaſily heal it. *Ælianus.* The Shrew falling into the furrow of a Cart wheel doth preſently die: the duſt thereof in the paſſage by which ſhe went, being taken and ſprinkled into the wounds which were made by her poyſonſome teeth, is a very excellent and preſent remedy for

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Aetius. the curing of the ſame. *Mattheolus* alleadgeth out of *Nicander*, that the dirt which cleaveth unto the wheels of a Chariot being ſcraped off and ſprinkled into the bites of a Shrew, will be very medicinable for the healing of them, which thing he himſelf thinketh a meer fable, and not to be believed. If the pimples or bladders which ariſe in the bites of a Shrew ſhall be thought convenient to be broken, for the performing of the ſame, take the skin of a baked or roaſted Pomgranate, and ſpread it upon the aforeſaid red pimples, as hot as poſſible may be ſuffered for ſome ſmall time, and it will cauſe the ulcers to break, and all the corruption to iſſue forth.

Avicenna. If it grow unto an Impoſtume, take the little berries or pellets which are within the Pomgranate, being very well baked, and apply them unto the ſore ſome ſhort time, and they will very eaſily cure the ſame. *Aegineta.* Muſtard-ſeed being mingled with Vinegar, anointed upon the bites of a Shrew, doth very effectually heal them. A Moul being bruiſed into ſmall pieces, and applyed unto the bites of a Shrew in the form of a plaiſter, is a very excellent remedy for the curing of them. Pitch and Trifoly being baked, and rubbed very hot upon the bites of a Shrew, is accounted a very medicinable cure: but it is requiſite that this fomentation be given unto none but ſuch as are of a ſtrong and powerful body, and are alſo able to endure pain. *Dioſcorides.* The liquor of the Herb called Southernwood being given in Wine to drink doth very much profit thoſe which are troubled, and pained in their limbs with the bites of Shrews. Wormwood being uſed in the like manner, will cure thoſe which are bitten by a Shrew.

The genital of a Lamb or Kid being mingled with four drams of the Herb called *Ariſtolochia*, or Hart-wort, and ſix drams of the ſweeteſt Myrrh, is very good and medicinable for curing of thoſe which are bitten or ſtung with Shrews, Scorpions, and ſuch like venemous Beaſts. The leaves of Coleworts being dryed, mingled with flower, and tempered together, until they come into the form of a plaiſter, will very much help againſt the venemous bites of the Shrew. *Ruellius.* The ſeeds of Coleworts, and the leaves of the ſame herb being mingled with Vinegar, and the herb called *Aſſa fœtida* beat or pounded together, do very well and ſpeedily cure the bites of the Shrews, as alſo of a ravenous Dog, if the ſame in due time be applyed thereunto. The liquor alſo of the leaves of Coleworts being given in any kinde of drink, is good and wholeſome for the curing of the aforeſaid bites or wounds. *Dioſcorides.* The Nuts of a young Cypres tree being mixed with a certain ſyrup or potion made of Hony, Water, and Vinegar, and afterwards drunk, doth very ſpeedily procure eaſe and help for thoſe which are bitten by a Shrew.

The root of a white or black Thiſtle, being beaten or bruiſed and given in drink, doth very effectually help or cure thoſe which are bitten by a Shrew. The like vertue hath the herb called Rocket in it, and alſo the ſeed thereof being given in any kinde of drink. *Æginetta.* The gum or liquor which proceedeth from a kinde of Ferula, being given in Wine to drink, doth very much help and cure thoſe which are bitten by a Shrew. The ſame vertue alſo in it hath the root of the herb called Gentian or Bitterwort, being given in Wine to drink. One or two drams of the youngeſt or tendreſt leaves of the Laurel tree, being beaten ſmall and given in Wine to drink, doth ſpeedily cure the ſores or wounds which are bitten by a Shrew: *Aetius.* the ſame being alſo uſed in the ſaid manner, and given in ſome certain portion unto Horſes to drink, doth quickly help and heal them. *Avicenna.* But there are ſome which before all other medicines do commend this for the beſt, and chiefeſt; that is, to take the juyce which proceedeth from the leaves of the Lawrel tree, and the leaves themſelves, being moiſt and new growing, and to boil them in Wine, and being once cooled, to give it to any which is bitten by a Shrew, and this will in very ſhort ſpace altogether help them. *Pliny.* A young Weeſil being given in Wine to drink, is accounted very medicinable for thoſe which are bitten by a Shrew, or ſtung by a Scorpion or any other venemous creature. *Æginetta.* The herb called Baltſamint or Coſtmary, the herb called Bartram, or wilde Pellito, the herb called Betony, the herb called Water-mint, or Water-creſſes; the ſweet and delicious gum called Storax, as alſo the herb called Vervin, being each of them ſeverally by themſelves, either given in Wine to drink, or applyed in the manner of a plaiſter, or anointed upon the bites or wounds which come by the venemous teeth of a Shrew, will very effectually cure the pain thereof: *Avicenna.* The biting of a field Mouſe or Shrew, is very troubleſome or grievous to all labouring Beaſts; for inſtantly after her bitings there do little red Pimples ariſe, and there is moſt danger of death in thoſe Beaſts which ſhe biteth when ſhe is great with young; for the aforeſaid pimples will then preſently break, after which the Beaſt ſo bitten will inſtantly die. *Albertus.* The Shrew doth alſo kill ſome labouring Beaſts with poyſon, as chiefly Horſes and Mules; but eſpecially and for the moſt part Mares, which are great with young. There are ſome which do affirm, that if Horſes, or any other labouring creature do feed in that paſture or graſs in which a Shrew ſhall put forth her venome or poyſon in, they will preſently die. *Abſyrtus.* In what place ſoever a Shrew ſhall bite in any creature, it will be compaſſed with an exceeding hard ſwelling, the Beaſt alſo being ſo bitten, doth expreſs his grief or ſorrow with much pain, and ſtraining his body doth likewiſe ſwell all over, his eyes do in a manner weep, the ſwelling in his body doth ſquize out matter, or filthy putrifaction, he voideth poyſon out of his belly; and doth vomit all ſuſtenance up aſſoon as ever he receiveth it. *Hierocles.* If an Aſs being great with young be bitten by this Beaſt, it is a very great chance if ſhe ſcape death.

But if the Shrew do bite any Beaſt when ſhe is great with young, it is known by theſe ſignes, or marks, there will certain red pimples compaſs the ſore round about, and alſo ſpread themſelves over all the body of the bitten Beaſt, and will in ſhort ſpace deſtroy him, except there be procured

ſome

nus, & animal venenoſum, puſillum muri ſimile: nam & araneum piſcem, propter venenum pungentibus inſitum ſpinis, veteres ophim, id eſt, ſerpentem nominarunt, & hodie quam vulgo draconem vel dracænam. That is to ſay; There is a fiſh of the Sea, and a little Beaſt on the Earth like a Mouſe, which by a general word are called *Mugale*, and the Spider-fiſh called at this day a Dragon, or Dragoniſt, was in ancient time called a Serpent, becauſe by his prickly fins, he did poyſon thoſe which were ſtrucken by him. And concerning the deſcription of this beaſt, it may be taken from the words of an ancient *Engliſh* Phyſitian, called Doctor *William Turner*.

I have ſeen (ſaith he) in *England*, the Shrew-mouſe of colour black, having a tail very ſhort, and her ſnowt very long and ſharp, and from the venemous biting of this Beaſt, we have an *Engliſh* Proverb or Imprecation, I beſhrow thee, when we curſe or wiſh harm unto any man, that is, that ſome ſuch evil as the biting of this Mouſe may come unto him. The *Spaniards* call this Beaſt *Raton Pequenno*; the *Illyians*, *Viemedkamys*; and the *Polonians*, *Kerit*. They were wont to abound in *Britany*, as *Hermolaus* writeth.

Samonicus.
Vegetius.

They are alſo plentiful in *Italy* beyond the Mountains *Apennine*, but not on this ſide (as *Pliny* writeth) yet in the hither parts of *Italy* and *Germany*, there are many found, eſpecially in the Country neer *Trent*, in the Valley *Anania*, where this is admirable, that by reaſon of the coldneſs of that Country their bitings are not venemous. For the Scorpions there are not venemous, although in other places of *Italy* they poyſon deeply. This Beaſt is much leſs then a Weeſil, and of an aſh colour, in moſt places like a Mouſe, although the colour be not always conſtant.

Aetius.

The eyes are ſo ſmall, and beneath the proportion of her body, that it hath not been unjuſtly doubted of the Ancients, whether they were blinde or no, but in their beſt eſtate their ſight is very dull. And for this cauſe the ancient *Egyptians* did worſhip it: for as they held opinion, that darkneſs was before light, ſo they deemed that the blinde creatures were better then the ſeeing. And they alſo believed, that in the wane of the Moon the liver of this beaſt conſumed. It hath a long and ſharp ſnowt like a Mole, that ſo it may be apt to dig. The teeth are very ſmall, but ſo as they ſtand double in their mouth, for they have four rows of teeth, two beneath, and two above, which are not only apparent by their diſſection or Anatomy, but alſo by their bitings, for their wounds are Quadruple, whereſoever they faſten their teeth. Their tail is ſlender and ſhort. But the deſcription of this Beaſt was better apprehended by *Geſner*, at the ſight of one of them, which he relateth on this manner:

The colour (ſaith he) was partly red, and partly yellow, mingled both together, but the belly white. The hinder-feet ſeemeth to cleave to the body or loins. It ſmelleth ſtrongly, and the ſavour did bewray or ſigniſie ſome ſecret poyſon. The tail about three fingers long, beſet with little ſhort hairs. The reſidue of the body was three fingers long. The eyes very ſmall and black, not much greater then Moles, ſo that next to the Mole they may juſtly be called, the leaſt ſighted creature among all four-footed Beaſts; ſo that in old age they are utterly blinde by the Providence of God, abridging their malice, that when their teeth are grown to be moſt ſharp, and they moſt full of poyſon, then they ſhould not ſee whom nor where to vent it.

They differ as we have ſaid in place and number, from all four-footed Beaſts, ſo that they ſeem to be compounded and framed of the teeth of Serpents and Mice. The two fore-teeth are very long, and they do not grow ſingle as in vulgar Mice; but have within them two other ſmal and ſharp teeth. And alſo thoſe two long teeth grow not by themſelves, as they do in other Mice, but are conjoyned in the reſidue, in one continued rank. They are ſharp like a ſaw, having ſharp points like needles, ſuch as could not be ſeen by man, except the tips of them were yellow. Of either ſide they have eight teeth, whereas the vulgar Mice have but four, beſide the two long fore-teeth, which alſo ſeem divided into two or three, which except one mark diligently, he would think them to be all one.

Arnoldus.
Ælianus.

It is a ravening Beaſt, feigning it ſelf gentle and tame, but being touched, it biteth deep, and poyſoneth deadly. It beareth a cruel minde, deſiring to hurt any thing, neither is there any creature that it loveth, or it loveth him, becauſe it is feared of all. The Cats, as we have ſaid, do hunt it and kill it, but they eat not them, for if they do, they conſume away in time. They annoy Vines, and are ſeldom taken, except in cold; they frequent Ox-dung, and in the Winter-time repair to houſes, gardens, and ſtables, where they are taken and killed.

If they fall into a Cart-road, they die and cannot get forth again, as *Marcellus*, *Nicander*, and *Pliny* affirm. And the reaſon is given by *Philes*, for being in the ſame, it is ſo amazed, and trembleth, as if it were in bands. And for this cauſe ſome of the Ancients have preſcribed the earth of a Cart-road, to be laid to the biting of this Mouſe for a remedy thereof. They go very ſlowly, they are fraudulent, and take their prey by deceit. Many times they gnaw the Oxes hoofs in the ſtable. They love the rotten fleſh of Ravens; and therefore in *France*, when they have killed a Raven, they keep it till it ſtinketh, and then caſt it in the places where the Shrew-mice haunt, whereunto they gather in ſo great number, that you may kill them with ſhovels. The *Egyptians* upon the former opinion of holineſs, do bury them when they die. And thus much for the deſcription of this Beaſt. The ſucceeding diſcourſe toucheth the medicines ariſing out of this Beaſt; alſo the cure of her venemous bitings.

The Medicines of the Shrew.

Marcellus.

The Shrew, which falling by chance into a Cart-rode or track, doth die upon the ſame, being burned, and afterwards beaten or diſſolved into duſt, and mingled with Gooſe greaſe, being rubbed or anointed upon thoſe which are troubled with the ſwelling in the fundament coming by the cauſe of ſome inflammation, doth bring unto them a wonderful and moſt admirable cure and remedy. *Pliny.* The Shrew being ſlain or killed, hanging ſo that neither then nor afterwards ſhe may touch the ground, doth help thoſe which are grieved and pained in their bodies, with ſores called fellons, or biles, which doth pain them with a great inflammation, ſo that it be three times invironed or compaſſed about the party ſo troubled. *Pliny.* The Shrew which dyeth in the furrow of a Cart-wheel, being found and rowled in Potters clay or a linnen cloth, or in Crimſon, or Scarlet woollen cloth, and three times marked about the Impoſtumes, which will ſuddenly ſwell in any mans body, will very ſpeedily and effectually help and cure the ſame.

The tail of a Shrew being cut off and burned, and afterwards beaten into duſt, and applyed or anointed upon the ſore of any man, which came by the biting of a greedy and ravenous Dog, will in very ſhort ſpace make them both whole and ſound, ſo that the tail be cut from the Shrew when ſhe is alive, not when ſhe is dead, for then it hath neither good operation, nor efficacy in it. *Hippocrates.* The former hoofs of a Horſe being ſcraped, and the ſame fragments or ſcantlings thereof being beaten in the duſt or earth, which hath been digged up by a Shrew, in four meaſures of water, poured down the mouth of a Horſe which is troubled with any pain or wringing in his bowels, will ſoon give him both help and remedy. The Shrew being either applyed in drink, or put in the manner and form of a plaiſter, or hanged upon the ſore which he hath bitten, is the moſt excellenteſt, and moſt medicinable cure for the helping and healing thereof. A preſervative againſt poyſon, would be an excellent remedy, that neither man nor any other living creature, ſhould be bitten if they ſhould leave or would want that ſuperſtition called an enchantment againſt poyſon, being hanged about the neck, whereof we will ſpeak more in the curing of the bites of this Beaſt.

That the biting of a Shrew is venemous, and of the reaſon of healing in this kinde.

Pliny.

In *Italy* the biting of a Shrew is accounted for a very ſtrong poyſon, and that except there be ſome medicine very ſpeedily applyed for the curing and healing thereof, the party ſo bitten will die. Theſe Shrews are truly ſo venemous and full of poyſon, that being ſlain or killed by Cats, whoſe nature is to kill whatſoever Mice they take, they will not offer to touch or eat the leaſt part of them.

Marcellus.

But the biting of a female Shrew is moſt obnoxious and hurtful when ſhe is great with young, but moſt dangerous of all when ſhe biteth any one which is great with young, either a woman or any other Beaſt whatſoever, her ſelf being alſo with young, for then it will hardly be cured.

Dioſcorides.

If a Shrew ſhall bite any creature while ſhe is great with young, the puſhes or biles will in time be broke which they make, and will come unto a very great and malignant wound and ſore. If the Shrew do alſo bite any creature during the time ſhe is with young, ſhe will preſently leap off, notwithſtanding ſhe biteth more dangerous. *Avicenna.* There is nothing which do more apparently explain and ſhew the biting of a Shrew then a certain vehement pain and grief in the creature which is ſo bitten, as alſo a pricking over the whole body, with an inflammation or burning heat going round about the place, and a fiery redneſs therein, in which a black puſh or like ſwelling with a watery matter, and filthy corruption doth ariſe, and all the parts of the body which do joyn unto it ſeem black and blew with the marvellous great pain, anguiſh, and grief, which ariſeth and proceedeth from the ſame.

When the puſh or bile which cometh by the occaſion of a Shrew cleaveth or is broken, there proceedeth and iſſueth forth a kinde of white fleſh, having a certain rinde or skin upon it, and ſometime there appeareth in them a certain burning, and ſometimes the ſame is eaten in and falleth out, but in the beginning there is a moſt filthy green corruption and matter which floweth in the ſame, afterward it is putrefied, and eaten in, and then the fleſh falleth forth; *Dioſcorides.* the wringings alſo of the inward parts, the difficulty of voiding the urine, and a corrupted ſweat doth follow and accompany the ſame.

But *Avicenna* affirmeth, that in what place ſoever this Beaſt ſhall bite, the ſores thereof with great anguiſh will pant or beat, and that in every hole wherein his venemous teeth have entred, there will a certain fiery redneſs appear, the skin whereof being broken, there will come a very white and mattery ſore, which will breed much pain and trouble in all the parts of the body for the moſt part. *Aegineta.* The ſores or wounds which are made alſo by this Beaſt are very manifeſtly known by the marks of the fore-teeth ſtanding all in a row together, as alſo by the bloud which iſſueth from the wound, being at the firſt pure, clear, and exceeding red, but afterwards corrupt, blackiſh, and full of putrefaction.

There do alſo divers bunches ariſe in the fleſh uſually after the biting of this Beaſt, which if any man ſhall break, he ſhall ſee the fleſh which lyeth under them corrupted, and divided with

Vegetius. ſome preſent remedy. The *Normans* in *France*, do ſuppoſe the Shrew to be a Beaſt ſo full of venom, and poyſon, that if he ſhall but paſs over either an Ox, or a Horſe lying down along upon the ground, it will bring ſuch a dangerous diſeaſe upon them, that the Beaſt over which ſhe ſhall paſs, ſhall be lame about the loins, or ſhall ſeem as if he were immoveable, and that he can be cured by no other means but by the ſame Shrew, who either of his own accord, or by compulſion muſt paſs over the contrary ſide of the Beaſt, and that then he will be cured; which thing I do hold to be very vain and not to be believed.

Hippocrates. For the curing of Beaſts which are bitten by a Shrew, thou ſhalt boil the ſeed of Parſly together with Wine and Oyl, and thou ſhalt cut the place which ſwelleth with a Pen-knife, by which the poyſon may iſſue forth, and the wound being pointingly pulled or torn may wax raw: if by theſe the inflammation do wax more fervent and hot, thou ſhalt eat the ſore with Iron inſtruments burning with fire, taking away ſome part of that which is whole and ſound: then ſhalt thou renew the wound with the Iron inſtruments being governed rightly, by which the corruption may iſſue forth: but if that part do chance to ſwell by the exculceration, thou ſhalt ſprinkle Barley being burned and dryed therein; but before you do this, it is meet to joyn the old fat.

Hierocles. There is alſo another excellent medicine for the curing of the Shrew, which *Startonicus* himſelf doth much commend, which is this: To lance or ſcarifie the wound aſſoon as it is bitten, but eſpecially if it be compaſſed with an inflammation, afterwards to ſprinkle Salt and Vinegar upon it, then to encourage or provoke the Beaſt the next day following by ſome ſweet water or liquor to run or go ſome little journey, firſt having anointed the ſore with Fullers-earth, being beaten ſmall and mixed with Vinegar, and then daily to nouriſh or bathe it with water which cometh from bathes where ſome have waſhed themſelves, and this in very ſhort time being ſo uſed, will very well and altogether cure the Beaſt. Againſt the biting of a Shrew Garlick is accounted for an excellent remedy being mingled with Nitre; but if there ſhall be no Nitre to be had, mix it with Salt and Cumin, then to dry and beat them al together into powder, and with the ſame to rub the places which are infected with the biting: but if the venemous wounds do chance to break; then to take Barly being ſcorched or burned, and pound it into ſmall powder, and ſteep it in Vinegar, and afterwards to ſprinkle it into the wound: This medicine *Pelagon* affirmeth, will only heal the bites of a Shrew, and that the grief of the ſore, by the uſe of any other medicines doth rather encreaſe, then decreaſe.

Vegetius. The flowre which is made of red Wheat, the herb called Dill, the liquor or Rozen which runneth out of the great Cedar, and two pound of the beſt Wine, being mingled all together, given in a potion, and poured down the throat of any labouring Beaſt which is bitten by a Shrew, will preſently eaſe and cure him of his pain.

Hippocrates. There is alſo another potion for the curing of the bites of this Beaſt; which is this; To take cloves of Garlick being bruiſed ſmall, Salt, Cumin, and Wine, of each the like quantity; theſe being given to any Beaſt to drink, doth preſently cure him; as alſo any man being anointed upon the wound, but not given to drink. The herb called Nard or Pepper-wort, being beaten to the quantity of two ounces and a half, and mingled with ſome ſweet ſmelling Wine, will preſently help any Beaſt which is bitten by the Shrew, being poured through his Noſe, and his ſore being at that inſtant time anointed with Dogs dung: the ſame is alſo very medicinable or wholeſome for men which are troubled with the ſaid biting.

The bites of a Shrew being pricked with an Aul, and anointed with duſt which is found in the furrows of Carts under the marks or ſignes of the Wheel, being mingled with ſharp Vinegar, doth preſently aſſwage the pain, and heal the ſore. The earth of the track of a Cart alſo mingled with ſtale or urine, being applyed unto the bites of a Shrew, will very ſpeedily cure them either upon Men or Beaſts. A Shrew being new killed and rubbed over with Salt, applyed unto the wounds which ſhe ſhall bite in any Beaſts, will inſtantly cure them: This vertue alſo hath the gall of a Rere-mouſe or Bat, being mixed with Vinegar.

Pliny. There is a very good remedy againſt the bitings of Shrews, or to preſerve Cattle from them, which is this; to compaſs the hole wherein ſhe lyeth round about, and get her out alive, and keep her ſo till ſhe dye, and wax ſtiffe, then hang her about the neck of the Beaſt which you would preſerve, and there will not any Shrew come near them; and this is accounted to be moſt certain. And thus much ſhall ſuffice concerning the bitings of the Shrews, and of the cures thereof.

Of Wilde FIELD-MICE.

The Epithets of wilde Mice deſcribing their kindes.

THis wilde Mouſe called by the *Latines*, *Mus agreſtis*, *Mus Sylveſtris*, *Sylvaticus*, *Subterraneus*, and ſome ſay *Nitedula*, (although I rather take that word to ſignifie a Glare-worm.) It is called alſo *Exiguus Mus*, and *Ruſticus*. The *Gracians* call it *Myſs Arourayos*; the *Germans*, Field-mouſe, and Erd-mouſe, that is, a Mouſe of the Earth, and *Nuelmus*, *Nualmuſs*, *Schorrmuſs*, *Schoermowſs*, *Stoſſmuſs*, and *Luckmuſs*, by reaſon of her digging in the earth like a Mole. The *French* call it *Mulot*. There is of theſe Mice two kindes, a greater and a leſſer. The picture of the greater we have deſcribed here, forbearing the leſſer, becauſe in all parts it reſembleth this, except in the quantity.

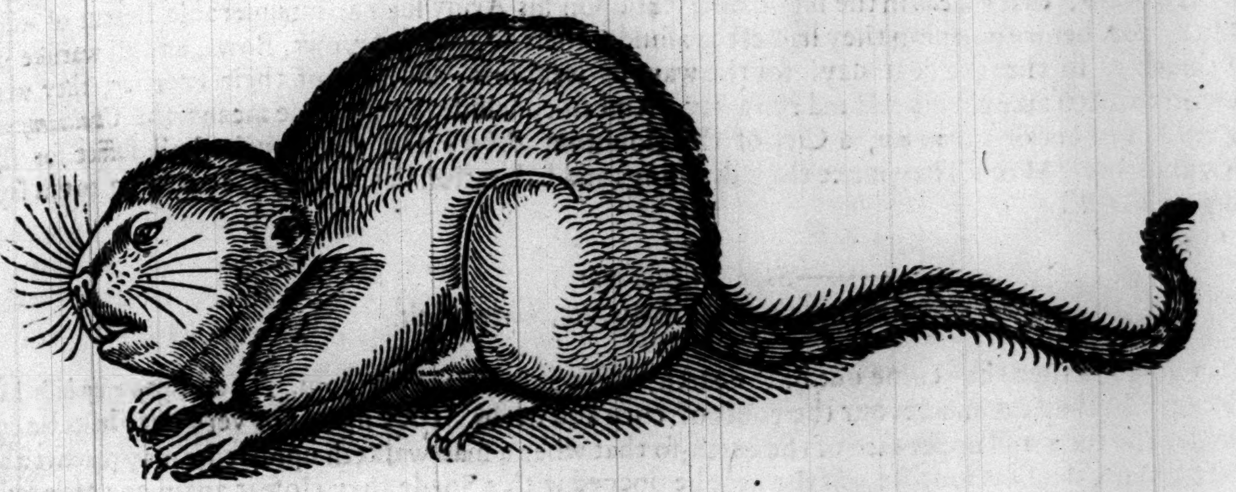
Their ſeveral parts.

This greater kinde is not much leſſer then a Rat, having a long broad tail like it. The ears of it are round; the head round and great; and the ſnowt or chaps do not ſtand out long. They are of two colours in both kindes, ſome red and ſome black. They have a beard betwixt their mouth and their eyes; and the leſſer Mice have a ſhort tail. A Phyſitian taking occaſion of the writings of *Baſſianus Landus*, to diſſect one of theſe Mice, found it to be true which he ſaith, that their maw and guts lie all ſtraight and upright. We have ſhewed already, that all kinde of Mice are generated out of the earth, although alſo they ſuffer copulation. And in *Egypt* it is very common about *Thebais*, and the places where *Nilus* overfloweth, that in the decreaſe and falling away of the Waters, the Sun engendereth many Mice upon the ſlime of the earth; ſo that it is ordinary to ſee at one time their fore-parts to have life, fleſh, and motion, and the hinder-parts deformed, and nothing but earth.

Whether Mice engendred of the earth, can procreate other.

Ælianus.

Pliny.



And about this matter there is ſome diſputation among the Authors, for there be Philoſophers which affirm, that every creature as well perfect as unperfect, may be made both by ſeed and of putrified matter; and from hence came the opinion in the Poets, of the ſons and daughters of the earth, and ſo they ſay, that things grow by generation *in infinitum*. Some ſay, that perfect creatures cannot be generated in that manner, but the imperfect ones, ſuch as Mice are, may be ingendered by ſeed and putrified matter, and afterwards beget more of his one kinde.

But *Ariſtotle* confeſſeth the firſt generation, and denyeth the ſecond, and ſaith; although they do generate by copulation, yet it is not *Idem ſed animal ſpecie diverſum, à quo nihil amplius gigni poſſit*; And therefore *Jeronimus Gabucinus* endeth this controverſie, ſaying; *Mures ex putredine nati, generant quidem & ipſi, ſed quod ex eis generatur, nec Mus eſt, nec fœmina, nec amplius generat*: that is; Mice engendered of putrified matter do alſo engender, but that which is begotten of them is neither male nor female, neither can it engender any more, that it may not proceed *in infinitum*, like a Mouſe engendered by copulation. But concerning the beginning of theſe wilde Field-mice, and their encreaſe, *Ariſtotle* ſpeaketh in this manner: We have received (ſaith he) the wonderful generation of wilde Field-mice, abounding in every place, and eſpecally in corn-fields, which by their multitude, do inſtantly eat up and devour a great deal of grain, inſomuch as it hath been ſeen, that divers poor Husbandmen, which have determined to day, to reap their corn on the morrow, in the mean ſeaſon it was ſo deſtroyed by Mice, that when the Reapers came in the morning, they have found no corn at all.

The damage done by wilde Field-mice.

And as the encreaſe of theſe Mice was extraordinary, ſo alſo was the deſtruction, for men could not drive them away, as in former times, by ſmoking them, or elſe by turning in Swine to root out their neſts from the earth, or by ſending Foxes, or wilde Cats among them, but their multitude did always prevail; and yet after a few days, the ſhowers of the clouds deſtroyed them. And *Pliny* ſaith, that this ought to be no marvail, that there ſhould be ſo great a harveſt and ſtore of theſe Mice, ſeeing that men yet never knew how to hinder their generation, or to kill them, being engendered, and yet for all that they are ſeldom found in the Winter time either alive or dead. And ſeeing that we have entred into the mention of the damage of theſe wilde Field-mice, it is profitable to ſet down ſome ſtories out of Authors, recording the place and perſons, whom they have very much annoyed.

Pliny writeth, as we have ſhewed in our former diſcourſe, that the Inhabitants of *Troas*, were driven from their habitation by theſe Field-mice; becauſe they devoured all their fruits, and when they dyed, there was a worm engendered in their heads. *Diodorus Siculus* in his fourth Book of ancient Monuments recordeth, that there were certain people of *Italy*, which by incurſion of

Field-mice were driven to flight and to forſake their patrimonies, for they deſtroyed the roots of the corn, like ſome horrible drought, or ſome unreſiſtible cold froſt. *Coſſa* a Town of *Umbria*, in the days of *Pliny*, which at this day is called *Orbi tellus*, was deſtroyed by Field-mice, (as *Volaterranus* writeth.) *Niphus* alſo ſaith, that he ſaw in one night, all the Corn-fields at *Calenum* deſtroyed by the Mice.

Strabo.

There are ſuch a number of theſe Mice in *Spain*, that many times their deſtruction cauſed peſtilent diſeaſes, and this thing hapned amongſt the *Romans* when they were in *Cantabria*, for they were conſtrained to hire men by ſtipends to kill the Mice, and thoſe which did kill them, ſcarſe eſcaped with life. The Inhabitants of *Gyarus*, an Iſland of the *Cyclades*, after they had long reſiſted the violence of theſe Mice, yet at length they were fain to yeeld unto them, and forſake their Territory; and the Mice after their departure, through hunger did gnaw the Iron. We have ſhewed already how the *Philiſtines* were puniſhed with Mice, before they ſent away the Ark of the Lord, and how the *Aeolians* and *Trojans* were annoyed with them, until they had ſacrificed to *Apollo Smintheus*, and how the Mice of *Heraclea*, at the time of Grape-gathering, do go out of the Countrey and return again in the Autumn. When *Senacharib*, King of the *Arabians* and *Egyptians*, invaded *Egypt*, it is ſaid by *Herodotus*, that *Vulcan* in the night time ſent upon his Army ſuch an innumerable ſwarm of wilde Mice, that before morning they had eaten aſunder their Quivers, Arrows, Bows, and all warlike inſtruments, ſo that the next day, for the want of weapons, and fear of their enemies, they were conſtrained to take their heels and run away. And to conclude, by the ſame means the *Chalcidenſians* were driven out of *Elymnium*, a City of the Mountain *Athos*; and thus much ſhall ſuffice for the harm of theſe Mice. They make their dwellings and habitation in the earth, according to this ſaying of *Virgil*:

Places of their abode.

———*Sæpe exiguus mus*
Sub terra poſuitq; domos, atq; horrea fecit.

Yet now and then they come out of the earth, although it be but ſeldom. They heave up hills like Moles, and they eat and devour the roots of corn and herbs. They make not very deep holes, but dig under the turfs and upper face of the earth; ſo that when a man walketh upon it, he may perceive it by the ſinking in of his foot-ſteps: if the hole be opened with a Spade, they cloſe it again as a Mole doth, but not ſo ſpeedily, for they defer it two or three days together; and therefore if it be watched, they may kill her at her return by treading upon her; concerning the manner of taking them, theſe obſervations following may be put in practiſe.

Driving away of theſe Mice

Pliny.

Palladius.

Theſe kinde of Mice are driven or chaſed away with the aſhes of a Weeſil, or of a Cat mingled with water, and by ſprinkling or ſcattering ſeed or corn abroad, or by ſome things well ſodden in water: but the poyſoning of thoſe Mice is in the ſcent or ſavour of bread: and therefore they think it more profitable to touch the ſeed or corn lightly with the gall of an Ox. *Apuleius* doth affirm, that to ſoke the grain or corn in the gall of an Ox before you ſprinkle it abroad, is very good againſt theſe Field-mice: alſo (as it is read in *Geopon Græc.*) it doth very much commend the gall of Oxen, wherewith as he ſaith, if the ſeed or corn be touched, they ſhall be freed from the moleſtation or trouble of theſe Field-mice.

Notwithſtanding in the Dog-days Hemlock-ſeed with the herb Hellebore is better, or with wilde Cowcumber, or with Hen-bane, or being beaten with bitter Almonds, and Bears-foot, and to mingle with them juſt as much meal or corn, and beat and ſtamp them in Oyl, and when you have ſo done, put it into the hollow places of theſe Field-mice: and they will die aſſoon as ever they ſhall taſt of it. *Avicen* doth affirm alſo, that Hen-bane-ſeed doth kill theſe kinde of Mice, without the mixture of any other thing. Very many do ſtop the paſſages of them with the leaves of Rhododaphne, who do periſh in the time they are labouring to make their paſſage, by the gnawing of them.

Apuleius alſo ſaith, that the people of *Bithynia* have had much experience of theſe things, who ſtopped the paſſages of theſe Mice with theſe Rhododaphne leaves, ſo that they deſire to come forth by touching the ſame often with their teeth: which truly ſo ſoon as they ſhall touch or come unto, they ſhall preſently die. But they uſe a kinde of incantation which is this that followeth; I do adjure all ye Mice, which do remain or abide here, that ye do not offer me wrong, or ſuffer me to be wronged of any other. For I do aſſign and appoint you this field (then he nameth the field) in which if I ſhould ſurprize you hereafter, I call *Luna* to witneſs, I will tear every one of you into ſeven pieces: When as thou haſt writ this charm, binde paper faſt to the place wherein the Mice haunt, and that before the riſing of the Sun: ſo that the characters or marks may appear on the outſide cleaving to a natural ſtone of that place. I have written this (ſaith the Author) leſt any thing ſhould ſeem to be overskipped: neither do I allow or prove ſuch things can be done, but I rather counſel all men that they do not ſet their minde to any of theſe, which are more worthy of deriſion then imitation. If thou ſhalt fill the paſſages of theſe ruſtical or Field-mice with the aſhes of an Oak, he ſhall be poſſeſſed with a fervent deſire to it, often touching it, and ſo ſhall die.

Marcellus.
The medicines of Field-mice.
Scholiaſtes.

Theſe Countrey Mice, that is to ſay, thoſe Mice which are found in the fields, being bruiſed and burned to aſhes, and mingled with freſh Hony, doth comfort or reſtore the ſight of the eyes by diminiſhing the darkneſs or dimneſs thereof, in what field ſoever you ſhall finde any thing, dig them up by the roots with a little ſtake or poſt.

Of the WOOD-MOVSE.

The deſcription.

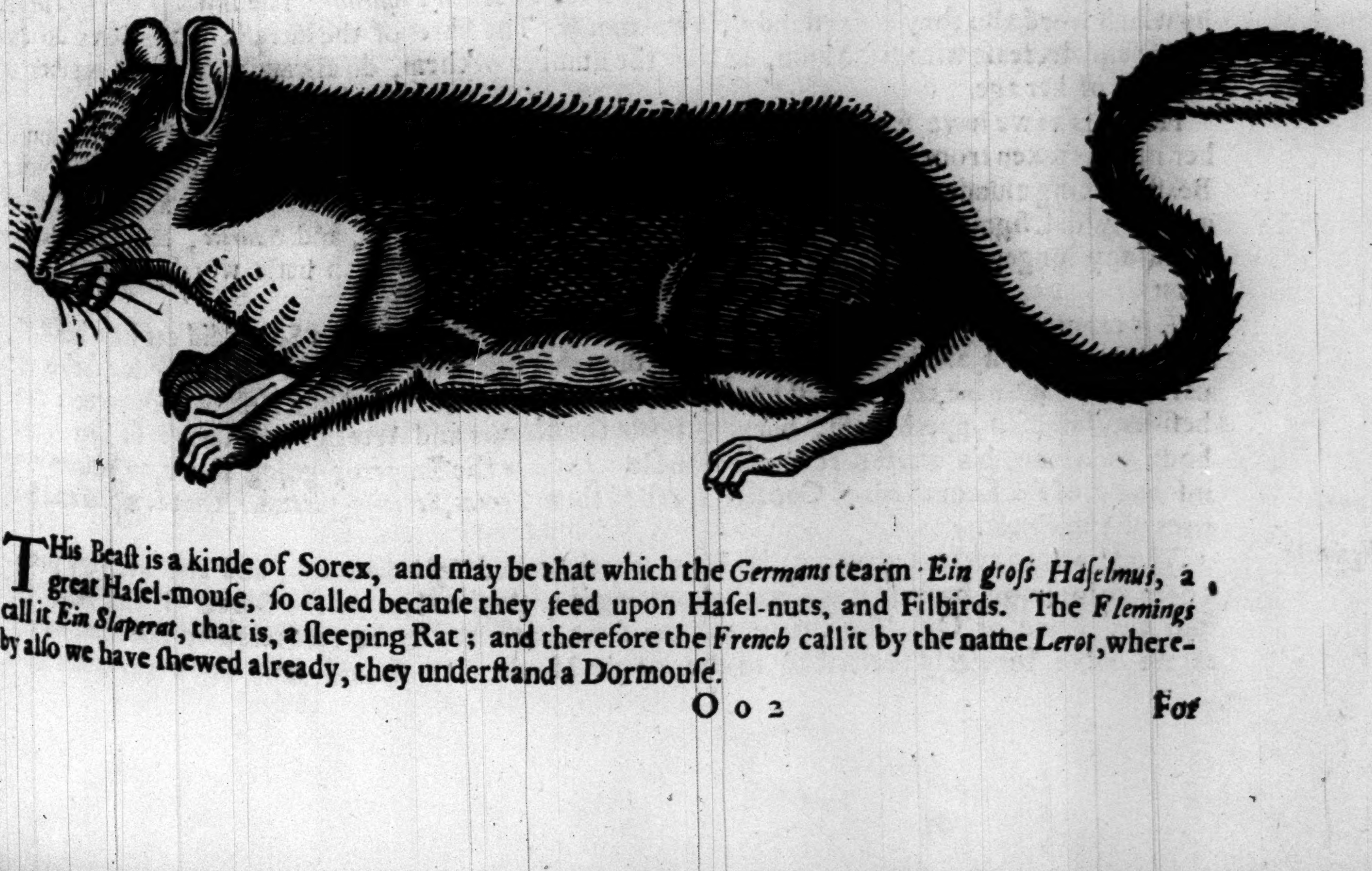
Pliny doth oftentimes make mention of this Wood-mouſe, or rather a Mouſe belonging to the Wood, but he doth it only in medicines; but that it doth differ from this Countrey or Field-mouſe we have have ſhewen in the chapter going before, becauſe it doth not inhabit or dwell in the Countries or tilled places, as the Countrey or Field-mice do, but doth inhabit in Woods and Forreſts. The Wood-mouſe is called in *Greek* as the Countrey-mouſe: but I think it to be a kinde of Dormouſe, which proceedeth from the kinde of Wood-mouſe. *Pliny* truly doth make the ſame remedy or medicines of a Dormouſe, as he doth of a Wood-mouſe, as I will a little after rehearſe or recite unto you. Alſo I ſhould have thought that a Sorex had been the ſame, becauſe it is a Wood-mouſe, but that, that one place of *Pliny* did hinder me, where he commendeth the aſhes of a Wood-mouſe to be very good for the clearneſs of the eyes, and by and by after did ſhew or declare that the aſhes of the Sorex were good alſo in the ſame uſe, as I will recite or rehearſe below in the medicines or remedies of the Wood-mouſe. *Agricola*, a man of great learning, doth interpret or judge the Wood-mouſe to be that Mouſe, to the which they do appoint the name derived from *Avellana*: but he doth account that to be the Sorex, which I will ſhew or declare beneath to be the Shrew. I do underſtand that there are properly two kindes of the Wood-mouſe ſpoken of before. The one of them that which *Albertus* doth write, ſaying that there is a certain kinde of Mouſe which doth build or make her habitation in trees, and of a brown or ſwart colour, and having alſo black ſpots in her face, which only is called by the univerſal name of a Wood-mouſe. Of the ſame kinde *Pliny* doth mean, (if I be not deceived) when he writeth, that the maſt of a Beech-tree is very acceptable to Mice, and therefore they have good ſucceſs with their young ones. The other which is peculiarly named the Sorex, which (ſaith *Pliny*) doth ſleep all the Winter time, and hath a tail full of hair: whoſe ſhape or form we propoſe and ſet evidently before you. But that I may more diſtinctly handle thoſe things which *Pliny* hath ſhewed to us concerning the Wood-mouſe; I will write her down ſeparately, or by it ſelf, and afterwards concerning the Mouſe which hath her name derived *from* Fil-birds, which the *Germans* have left in writing, and which I my ſelf have conſidered *or obſerved*; and laſt of all I will write concerning the Sorex peculiarly and ſeverally from the Ancient Writers.

The medicines of the Wood-mouſe. *Pliny.*

The aſhes of a Wood-mouſe being mingled with Hony, doth cure all fractures of bones, the brains alſo ſpread upon a little piece of cloth, and covered with wooll is good alſo; but you muſt now and then ſpread it over the wound, and it doth almoſt make it whole and ſtrong within the ſpace of three or four days: neither muſt you mingle the aſhes of the Wood-mouſe with Hony too late: Hony alſo being mingled with the aſhes of Earth-worms, doth draw forth broken bones. Alſo the fat of theſe Beaſts, being put to Kibes is very good; but if the Ulcers are corrupt and rotten, by adding Wax to the former things doth bring them to cicatriſing. The Oyl of a burned Locuſt is alſo very good; and alſo the Oyl of a Wood-mouſe with Hony, is as effectual as the other. They ſay alſo that the heads and tails of Mice mixed with the the aſhes of them, and anointed with Hony, doth reſtore the clearneſs of the ſight, but more effectually being mingled with the aſhes of a Dormouſe or a Wood-mouſe.

Marcellus.

Of the *Nut-mouſe, Haſel-mouſe,* or *Filbird-mouſe.*



THis Beaſt is a kinde of Sorex, and may be that which the *Germans* tearm *Ein groſs Haſelmus*, a great Haſel-mouſe, ſo called becauſe they feed upon Haſel-nuts, and Filbirds. The *Flemings* call it *Ein Slaperat*, that is, a ſleeping Rat; and therefore the *French* call it by the name *Lerot*, whereby alſo we have ſhewed already, they underſtand a Dormouſe.

For this ſleepeth like that, and yet the fleſh thereof is not good to be eaten. The colour of this Mouſe is red like the Haſel, and the quantity full as great as a Squirrel, or as a great Rat: upon the back and ſides it is more like a Mouſe, and upon the head more red. His ears very great, and pilled without hair. The belly white, ſo alſo are his legs. The neathermoſt of his tail towards the tip white. His noſtrils and feet reddiſh. The tail wholly rough, but moſt at the end with white hairs.

The eyes very great hanging out of his head, and all black, ſo that there is not in them any appearance of white. The beard partly white, and partly black, both above and beneath his ears, and about his eyes, and the upper part of his tail next his body all black. Upon his forefeet he hath four claws or diſtinct toes, for he wanteth a thumb. But upon his hinder-feet he hath five, I mean upon each ſeverally. The outſide of his hinder-legs, from the bending to the tip of his nails is altogether bald without hair. And the ſavour of all this kinde is like the ſmell of the vulgar Mice. They live not only in the earth, but alſo in trees which they climbe like Squirrels, and therefore make proviſion of nuts and meat againſt the Winter, which they lodge in the earth.

The Countreymen finding in the Summer their caves and dens, do wiſely forbear to deſtroy them, knowing that they will bring into them the beſt Nuts and Fil-birds can be gotten, and therefore at one ſide they ſtick up a certain long rod, by direction whereof in the Winter time they come and dig out the den, juſtly taking from them both their life and ſtore, becauſe they have unjuſtly gathered it together: Some have eaten it, but they were deceived, taking it for the Dormouſe.

Of the *LASCITT MOUSE*.

THis Mouſe is called by the *Germans*, *Laſcitts*, and alſo *Harnebal*, becauſe of the ſimilitude it holdeth with the *Ermeline* Weeſil. The skin of it is very pretious, being ſhorter then the *Eimeline* two fingers breadth. And foraſmuch as elſe, there is no difference between the *Laſcitt* Mouſe, and the *Laſcitt* Weeſil, except in the quantity: My opinion is, that they are all one, and differ only in age.

And I am rather led to affirm thus much, becauſe there are skins annuallly brought to the Mart of *Franckford*, out of *Polonia* (cal'd *Laſcet*) which are no other then the Weeſils of *Novo grodela*, whoſe white skins are intermixed with griſſeld; And thus much ſhall ſuffice to have ſaid of this Mouſe.

Of the *SOREX*.

Of the name and kinde.

I Am of opinion, that this kinde of Mouſe belongeth to the Haſel Mouſe before ſpoken of, becauſe it is wilde, hath a hairy tail, and ſleepeth in the Winter, all which things are by *Pliny* aſcribed to the Sorex; only this hindereth, that he maketh the Sorex to have rough hairy ears, and the Sorex of *Germany* hath bald ears. For anſwer whereof this ſhall ſuffice, that the other three notes being ſo great and pregnant, there is no cauſe why the want of one, and that ſo little as the hairs on the ears, ſhould deprive it of his naturall due and kinde. The *Italians* and the *French* uſe this word Sorex, for a domeſtical vulgar Mouſe, and ſo peradventure did the Antients before them; but it is greater then the domeſtical Mouſe, although *Plinies* Sorex be neither greater nor leſſer. The *Spaniards* call a Sorex, *Soraco*, or *Raton Pequenno*. The *Illyrians*, *Viemegka Myſs*, by which word alſo they underſtand a Shrew-mouſe. The fibres of the intrails of the Sorex do encreaſe and decreaſe with the Moon, ſo that the number of them, do always anſwer the number of the days of her age.

Alunnus.

Her ears as we have ſaid are full of hairs, but in the loweſt part or tip thereof. The reaſon of her name is taken from the skreeching voice ſhe maketh in gnawing. For it is a very harmful biting Beaſt, cutting aſunder with her teeth like a ſaw. Some do derive the *Greek* word from *Huras*, which anciently did ſignifie a Mouſe, and therefore they call this *Syrax*, and *Saurex*, but I liſt not to ſtand any longer upon the name, ſeeing the Beaſt it ſelf affordeth little worthy matter to entreat of.

It is reported by *Varro*, that in *Arcadia* there was a Hog ſo fat, that a Sorex did eat into her fleſh, and made her neſt and brought forth young ones therein, which may very well be; for ſuch is the nature of a fat Swine, that he will hardly riſe to eat his meat, or eaſe himſelf of his excrements: And beſides, fatneſs ſtoppeth ſenſe, burying both the Nerves and Arteries very deep: ſo that in the body of a man, his fatteſt part is leaſt ſenſible. *Lycinius* the Emperor going about to reſtrain the inſolency of the Eunuches and Courtiers, called them *Tineas*, *Soriceſq; palatinos*, that is moths and Sorices of the Court.

Egnatius.

There was an ancient garment (as *Pliny* writeth) called *Veſtis Soriculata*, and this was very pretious in my opinion, becauſe it was garded or fringed with the skins of the Sorex. If this Beaſt fall into any Wine or Oyl, ſhe corrupteth the ſame, and it is to be recovered by the ſame means, as we have formerly deſcribed in the vulgar Mouſe. It ſhould ſeem there was great ſtore of them in the days of *Heliogabalus*, for he commanded (as *Lampridius* writeth) to be brought unto him, not only a thouſand of theſe Beaſts, but alſo a thouſand Weeſils, and ten thouſand vulgar Mice, as we have ſhewed before in the ſtory of the vulgar Mouſe.

When the Sooth-ſayers were about their divinations, *Pliny* writeth, that if they heard the ſqueaking of the Sorex, they brake off, and gave over their labour, holding it unprofitable to go any further therein: and it is alſo reported, that the voyce of this Mouſe gave occaſion to *Fabius Maximus*, to give over his Dictatorſhip, and unto *Caius Flaminius*, to give over the Maſterſhip of the Horſe-men, ſuch fear of ſilly Beaſts, was begotten in the mindes of gallant and magnanimous ſpirits, by the unprofitable and fooliſh behaviour and doctrines of the Magitians.

It is ſaid by *Nigidius*, that theſe Sorices do ſleep all the Winter and hide themſelves like the Dormouſe. They alſo when they eat any corn, do ſcreetch and make a greater noiſe then other Mice, whereby they bewray themſelves in the dark unto their enemies, and are killed, which was the occaſion of that proverbial ſpeech of *Parmeno* in Terence, *Egomet meo indicio miſer, quaſi Sorex perii.* Saint *Auſtine*, and Saint *Origen*, do alſo make uſe of this proverb, the one in his Book of Order, the other in a Homily upon Geneſis, which cauſed *Eraſmus* to write in this manner, *Sed videbor ipſe meis indiciis captus*, that is, I have overthrown my ſelf with my own tale. Theſe Sorices do make hollow the trees wherein Emets or Ants breed, and there is perpetual hatred betwixt the Bittors, and theſe, one lying in wait to deſtroy the others young.

The Medicines of the Sorex.

Serenus and *Pliny* ſay, that if a woman with childe do eat the ſinews of a Sorex, if her eyes be black, ſo ſhall the Infants be likewiſe;

> *Si prægnans artus captivi Soricis edit,*
> *Dicuntur fœtus nigrantia lumina fingi.*

The fat of theſe Beaſts or of Dormice, is very profitable againſt the Palſie. The powder of the heads and tails anointed with Hony upon the eyes, reſtoreth the clearneſs of ſight, and with Hony *Attick*, the powder and fat of a Sorex burned, helpeth running eyes; and the ſame powder mingled with Oyl, cureth bunches in the fleſh.

Of the Mouſe called *Mus Napelli*.

There is another Mouſe called by *Mathæolus*, *Mus Napelli*, that is, a Wolf-bane-mouſe: ſo called, becauſe it feedeth upon the roots of that Herb; although there be ſome of opinion, that it is not a creature, but another little Herb growing near unto it for a counter-poyſon.

And *Marcellus* alſo maketh mention of *Napellus*, and *Antinapellus*, whereunto I ſhould eaſily condeſcend, but that the eyeſight of *Mathæolus* leadeth me to the contrary. For he writeth that he took one of them in the top of a high Mountain in *Italy*. And *Sylvaticus* calleth this Mouſe *Mus Suring*, or *Sucſinus*, and calleth it a Counter-poyſon to Wolf-bane, and that God might ſhew thus much unto men, he cauſeth it to live upon the roots, in teſtimony of his natural vertue deſtroying poyſon and venemous herbs.

The Indian Mouſe, and divers other kindes of Mice, according to their Countries.

Mice of the Eaſt.

I Do finde that divers times Mice do take their names from Regions wherein they inhabite, which happeneth two manner of ways: one, becauſe the form of their bodies will ſomewhat vary: the other, becauſe not only in ſhape, but alſo in wit they have ſome things in them common to Mice, over and above the Mice of our Countries; therefore we will briefly comprehend all their ſurnames of whatſoever regions they are in one order or Alphabet. In the Oriental parts of the world, there are great Mice, (as *Alexander* writeth) of the quantity of Foxes who do harm both men and Beaſts, and although they cannot by their biting kill any man, yet do they much grieve and moleſt them.

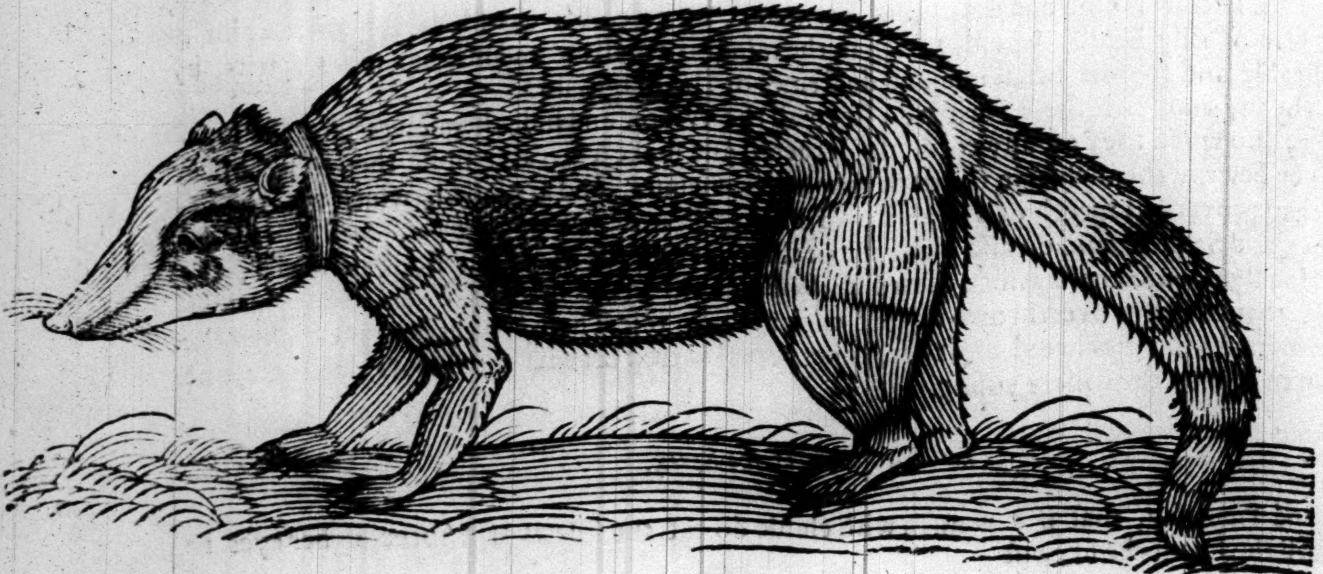
Egyptian Mice.

Americus Veſpucius writeth, that he found in an Iſland of the Sea being diſtant from *Ulisbona* a thouſand leagues, very great Mice. The hair of the *Egyptian* Mice is very hard, and for the moſt part like a Hedge-hogs: and there are alſo ſome which walk bolt upright upon two feet, for they have the hinder-legs longer, and their fore-legs ſhorter, their procreation is alſo manifold; and they do likewiſe ſit upon their buttocks, and they uſe their fore-feet as hands. But *Herodotus* affirmeth theſe Mice to be of *Africk*, and not of *Egypt*; amongſt the *African* or *Carthaginian* paſtures (ſaith he) in *Africk* towards the Orient, there are three kindes of Mice, of the which ſome are called *Bipedal* or two-footed, ſome in the *Carthaginian* language *Zetzeries*, which is as much in our language as hills, ſome Hedge-hogs.

Cyrenean Mice. *Pliny*.

Thare are more kindes of Mice in the *Cyrenaican* region: ſome which have broad fore-heads, ſome ſharp, ſome which have pricking hair in the manner of Hedge-hogs. It is reported that in *Cyrene* there are divers kindes of Mice both in colour and ſhape, and that ſome of them have as broad a countenance as a Cat; ſome have ſharp briſtles, and bear the form and countenance of a Viper, which the Inhabitants call *Echenetæ*, but improperly, as it appeareth by the words of *Ariſtotle* in his book of Wonders.

Herodotus alſo affirmeth the like of thoſe Mice, to be in ſhape and colour like Vipers: but *Pliny* and *Ariſtotle* do both diſallow it, and ſay that in thoſe juice there is nothing common to Vipers, but only to Hedge hogs, as concerning their ſharp briſtles.



There are alſo ſome Mice in *Egypt*, which do violently ruſh upon paſtures and corn: of which things *Ælianus* ſpeaketh, ſaying in this manner; When it beginneth firſt to rain in *Egypt*, the Mice are wont to be born in very ſmall bubbles, which wandering far and near through all the fields, do affect the corn with great calamity, by gnawing and cutting aſunder with their teeth the blades thereof, and waſting the heaps of that which is made in bundles, do bring great pains and buſineſs unto the *Egyptians*: by which it comes to paſs, that they endure all manner of ways to make ſnares for them, by ſetting of Mice-traps, and to repel them from their incloſures, and by ditches, and burning fires to drive them quite away: but the Mice as they will not come unto the traps, for as much as they are apt to leap, they both go over the hedges, and leap over the ditches. But the *Egyptians* being fruſtrated of all hope by their labours, all ſubtil inventions and policies, being left as it were of no efficacy, they betake themſelves humbly to pray to their Gods to remove that calamity from them. Whereat the Mice by ſome fear of a divine anger, even as it were in battel aray of obſerving a ſquadron order, do depart into a certain Mountain: The leaſt of all theſe in age do ſtand in the firſt order, but the greateſt and eldeſt do lead the laſt troups, compelling thoſe which are weary to follow them.

A wonder in the *Egyptian* Mice.

Ælianus.

But if in their journey the leaſt or youngeſt do chance through travail to wax weary, all thoſe which follow (as the manner is in Wars) do likewiſe ſtand ſtill, and when the firſt begin to go forward, the reſt do continually follow them. It is alſo reported, that the Mice which inhabit the Sea, do obſerve the ſame order and cuſtom.

The *African* Mice do uſually die aſſoon as ever they take any drink: but this is commonly proper unto all Mice, (as *Epheſius* affirmeth) where it is written above concerning the poyſoning of Mice. Mice, (but eſpecially thoſe of *Africk*) having their skins pulled off, boiled with Oyl and Salt, and then taken in meat, doth very effectually cure thoſe which are troubled with any pains or diſeaſes in the lungs or lights. The ſame doth alſo eaſily help thoſe which are moleſted with corrupt and bloudy ſpettings with retchings.

Medicine by *African* Mice.

Pliny.

The kindes of *African* Mice are divers; ſome are two footed; ſome have hair like unto Hedgehogs; ſome faces of the breadth of a Weeſil: but ſome call theſe Mice *Cirenacian*; ſome *Egyptian*. as I have before declared. In *Arabia* there are certain Mice much bigger then Dormice, whoſe former legs are of the quantity of a hand breadth, and the hinder of the quantity of the joynt to the end of the finger: I do underſtand them to be ſo ſhort, that nothing thereof may ſeem to appear without the body, except the ſpace of the joints of the finger, as it is in Martinets.

The *Arabian* Mice.

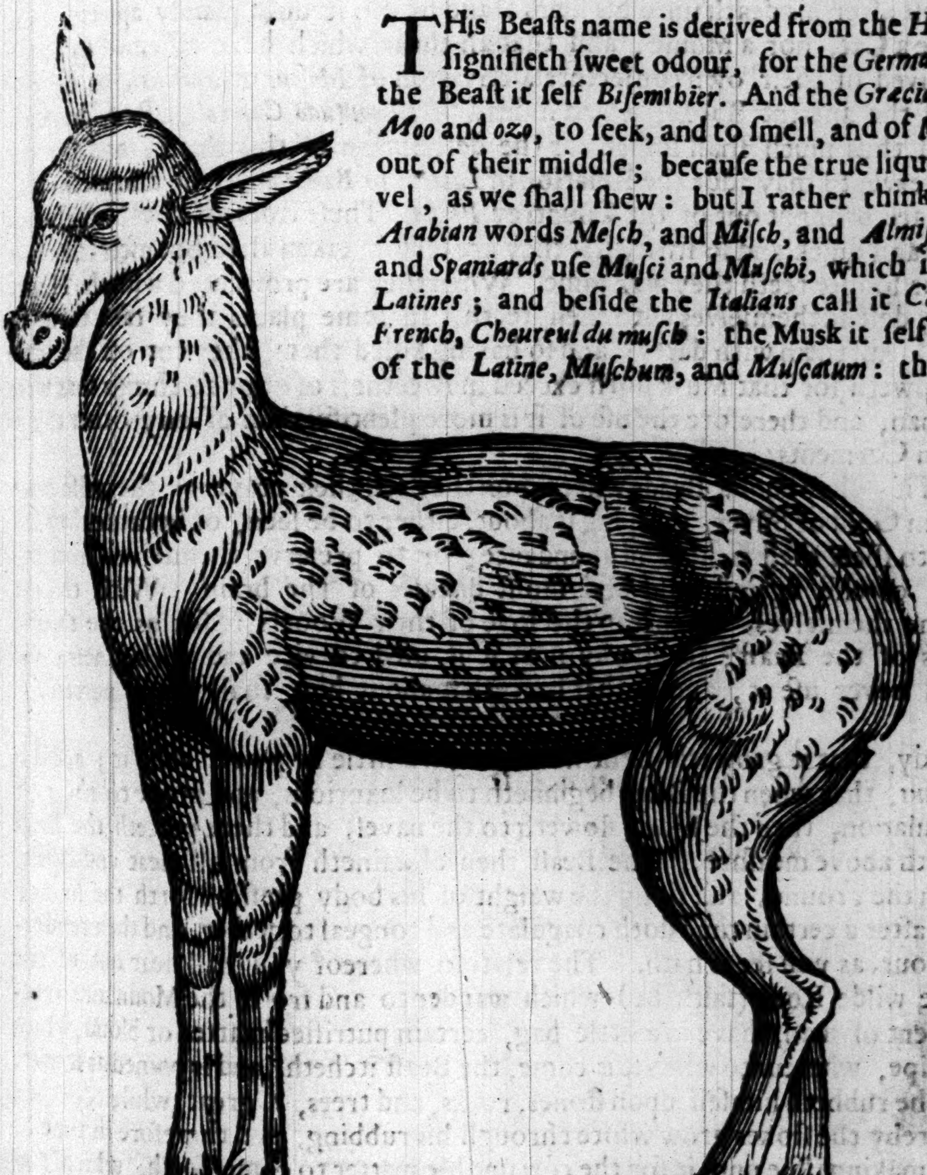
The *Armenian* Mice.

It is ſaid, that the garments of the *Armenians* are uſually woven with Mice which are bred in the ſame Countrey, or diverſly docked with the ſhape of the ſame creature. The Author writeth, that *Pliny* maketh mention of the *Armenian* Mouſe, but I have read no-ſuch thing: therefore he doth perchance take the *Armenian* Mouſe for the Shrew. In *Cappadocia* there is a kinde of Mouſe which ſome call a Squirrel. *Ælianus* writing of the *Caſpian* Mice; *Amyntas* (ſaith he) in his Book entituled *De Manſionibus*, which he doth ſo inſcribe, ſaith that in *Caſpia*, there do come an infinite multitude of Mice, which without any fear do ſwi inm the flouds, which have great and violent currents, and holding one another by their tails in their mouths, (as it is likewiſe reported of Wolves) have a ſure and ſtable paſſage over the water.

Of the *Caſpian* Mouſe.

But when they paſs over any tillage of the earth they fell the corn, and climing up into trees, do eat the fruit thereof, and break the boughs: which when the *Caſpians* cannot reſiſt, they do by this means endevour to reſtrain their turbulent incurſions; for they remove all things which may hurt birds having crooked talons, who come preſently ſo flying in ſuch great flocks, or companies, that may ſeem to be clouds to expel the Mice from their borders, and by a proper gift incident unto them by nature, do drive away hunger from the *Caſpians*. Neither in quantity are theſe Mice inferiour to the *Egyptian* Ichneumons: they are alſo ungentle, and they do no leſs devour with the ſtrength of their teeth, then the Mice of *Teredon* in *Babylon* do Iron, whoſe ſoft skins the Merchants carry to the *Perſians*. The *Indian* Mouſe, or *Pharaohs* Mouſe (as ſome learned later Writers do write) is no other then the Ichneumon. *Antonius muſa Braſavolus*, took the before expreſſed figure of an *Indian* Mouſe, (for ſo he did call it) which before that time was ſhewn by *Bellonius*, and I gueſſed it to be an Ichneumon; and truly in the ſnowt (if you take away the beard) and in the ears it doth agree, but in the tail it doth differ, which doth rather reſemble a Cats: and in many other things, which by conferring them are eaſie to be marked, and as I conceived it, I have ſet it down.

Of the *Moſchatte*, or *Musk-cat*.



THis Beaſts name is derived from the *Hebrew* word *Boſem*, which ſignifieth ſweet odour, for the *Germans* call the ſame *Biſem*, and the Beaſt it ſelf *Biſemthier*. And the *Gr*æ*cians* derive their *Moſchos* of *Moo* and *ozo*, to ſeek, and to ſmell, and of *Meſou Cheiſthai*, to proceed out of their middle; becauſe the true liquor cometh out of the navel, as we ſhall ſhew: but I rather think they derive it from the *Arabian* words *Meſch*, and *Miſch*, and *Almiſch*. The *Italians*, *French*, and *Spaniards* uſe *Muſci* and *Muſchi*, which is derived from the later *Latines*; and beſide the *Italians* call it *Capriolo del Muſco*; and the *French*, *Cheureul du muſch*: the Musk it ſelf is called in *Italy*, *Muſchio*; of the *Latine*, *Muſchum*, and *Muſcatum*: the *Illyrians*, *Pizmo*; and the *Germans*, *Biſem*. The *Arabians* were the firſt that wrote any diſcovery of this Beaſt, and therefore it ought not to ſeeme ſtrange, that all the *Gr*æ*cians* and *Latines* derive the name from them. And although there be an unreconcilable difference amongſt Writers about this matter, yet is it certain that they come neereſt unto the truth that make it a kinde of Roe: for the figure, colour, ſtature, and horns, ſeem to admit no other ſimilitude, except the teeth which are like a Dogs, whereof two are like a Boars teeth, very white and ſtraight. And there be ſome (as *Simeon Sethi*, and *Aetius*) which ſay he hath alſo one horn, but herein is a manifeſt error, becauſe no man that ever ſaw one of theſe Beaſts doth ſo much as make mention thereof; and therefore the original of this error came from the words of *Avicen*, who writeth that his teeth bend inward like two horns. *Cardan* writeth, that he ſaw one of theſe dead at *Millain*, which in greatneſs, faſhion, and hair reſembled a Roe, except that the hair was more thick, and the colour more gray. Now the variety of the hair may ariſe from the Region wherein it was bred. It hath two teeth above, and two beneath, not differing abſolutely from a Roe in any thing, except in the ſavour. It is called *Gazella*, they are leſſer, thinner, and more elegant creatures then the Roes are. *Paulus Venetus* writeth thus of this Beaſt. The creature out of whom the Musk is gathered, is about the bigneſs of a Cat, (he ſhould ſay a Roe) having groſs thick hair like a Hart, and hoofs upon his feet. It is found in the province of *Cathay*, and the Kingdom of *Cergoth*, which is ſubject to the great King of *Tartars*.

Braſſavolus.

Tame Musk-cats.

Their ſtrength, nimbleneſs, and quickneſs. *Alex. Benedictus.*

Likewiſe there was a moſt odoriferous Musk-cat at *Venice*, which a Merchant there had to be ſeen, brought as he ſaid out of *Cathay*, and for proof whereof he ſhewed the way that he went, namely through the *Euxine* Sea, *Colchis*, *Iberia*, and *Albania*, even to the entrance of *Scythia*. For the Countrey *Cathay* is a part of *Scythia*, beyond *Imaus*, neither ought this to ſeem wonderful, for in that place there was a Region, called by *Ptolemeus*, *Randa marcoſtra*, wherein he placeth the eleventh Table of *Aſia*. This Region is watered by the River *Sotus*, and therein aboundeth Spikenard, and the Inhabitants call the Countrey wherein the beſt Musk-cats are bred, *Ergimul*, and the greateſt City of that Countrey *Singuy*. The ſame Author writeth alſo, that Musk-cats are brought out of *Egypt*, and out of many places of *Africk*. In *Thebeth* alſo there are many Cities, and Beaſts about thoſe Cities called *Gadery*, which do bring forth the Musk; and the Inhabitants hunt them with Dogs. The Province of *Canicluet*, doth alſo yeeld many of theſe Beaſts, and likewiſe *Syria*. S. *Jerom* alſo writeth thus: *Muſcus & Oenanthe, & peregrini muris pellicula*, by which skin of the ſtrange Mouſe, he meaneth the little bag, or skin wherein the Musk of the Musk-cat is included. The Princes of *Europe* do nouriſh theſe tame, being brought out of the New-found World, and many other rich men eſpecially in *Italy*, be delighted with the odoriferous ſavour which cometh from it. *Braſſavolus* ſaith, that he ſaw a Merchant offer one of theſe to be ſold unto *Alphonſus* Dake of *Ferrara*, which had the Navel full of Musk. And *Catherinus Zenus*, an ancient Nobleman of *Venice*, had a Roe of this kinde, which he left after his death unto his heirs; and by this it doth plainly appear, that the Musk-cat is neither like a Cat, nor a Mouſe, and that all thoſe which have affirmed ſo much thereof, have been deceived of their own conjectural derivation of *Moſcus* or *Muſcus*, or by the errour of ſome Writer of the ancient Books, which inſtead of *Magnitudo Capreoli* a Roe, have inſerted *Catti*, a Cat. And thus much ſhall ſuffice for the deſcription of this Beaſt, and for the Regions where it is bred, except I may adde the Relation of *Ludovicus Romanus*, who affirmeth, that the Musk-cats of *Calecut* are brought out of the Countrey *Pegus*. Theſe Roes of the New-found-land are wonderful nimble and quick, and ſo ſwift, that they are ſeldom taken alive; but after they are taken, by pulling out their longer teeth they wax tame. When they are proſecuted with the Hunters, and with Dogs, they defend themſelves with their teeth. In ſome places they take them in ſnares, and in ditches, alſo kill them with darts; and ſo having killed them, they cut off the little bag wherein the Musk groweth, for that Musk doth exceed in ſweetneſs of odor all things that were ever made by the art of man, and therefore the uſe of it is more plentiful then of any other thing, for they carry it about in Garments.

Of the Musk, and the uſe thereof.

They make perfume of it; they anoint Beads whereupon they tell their prayers; they alſo make Bals of it, and include it in Gold or Silver, carrying it about, either to be ſeen, or becauſe they are delicate and wanton; or to ſhew their riches and abundance; or to preſerve themſelves from putrified and ſtinking airs; or elſe againſt cold and moiſt diſeaſes of the brain. With this the luxurious women perfume themſelves, to entrap the love of their Wooers: for as the thing it ſelf is a vice or ſickneſs of the Beaſt; ſo alſo by men it is uſed to vice and wickedneſs; yet the *Venetian* Matrons will never uſe it, and he that beareth it about him ſhall never perceive it himſelf.

The place where the Musk groweth.

The natural expreſſion of Musk.

We have ſhewed already, that it groweth in the navel, or in a little bag neer unto it; and it is true by *Gyraldus* and *Varinus*, that when the Beaſt beginneth to be luxurious, and prone to the rage of venery and carnal copulation, then the bloud floweth to the navel, and there putteth the Beaſt to pain, becauſe it ſwelleth above meaſure. The Beaſt then abſtaineth from all meat and drink, and rowleth himſelf upon the ground, and ſo by the waight of his body preſſeth forth the humor that troubled him, which after a certain time doth coagulate and congeal together, and then rendereth ſuch an acceptable ſavour, as you ſee it hath. The relation whereof you ſhall hear out of the words of **Serapion**. The wilde Roes (ſaith he) which wander to and fro in the Mountains freely, without the government of man, have in a little bag, certain putrified matter or bloud, which of it ſelf groweth to be ripe, whereunto when it is come, the Beaſt itcheth, and is pained as it were with launcing, therefore he rubbeth himſelf upon ſtones, rocks, and trees, a great while together, for it delighteth him, whereby the ſtones grow white through his rubbing, and therefore in time he weareth the bag aſunder, making iſſue unto it for the corruptible matter to come forth, which preſently runneth out upon the ſores, no otherwiſe then if it had been lanced. Then the wound groweth to be whole again, and the Beaſt departeth, until the like exſuperance of bloud come into the ſame place again. For every year this happeneth them.

The Inhabitants of the Countrey know all the Hunters of theſe wilde Beaſts, and therefore note them where they empty their bellies. For the humor ſo preſſed out as before is declared, through the heat of the Sun congealeth and dryeth upon the ſtone, growing more commendable and pleaſant through the Suns heat; Then come the Inhabitants, and in little bottles made of the skins of theſe Beaſts, which before they have killed, and ſo put the musk into them.

This they ſell for a great price, becauſe it is thought, (and that worthily) to be a gift fit for a King. But if this Musk be taken out of the creature by violence, then will he bring forth no more; yet expreſs it by his own natural art he beareth again and again. The greateſt cauſe of this humor is the ſweetneſs of his food, and the air wherein they are bred; therefore if one of them be brought into this part of the world, with Musk in his cod, it will grow to ripeneſs in a temperate

rate air, but if it be brought without Musk in the cod, then it will never yeeld any among us: and beſides that it liveth but a little while. And therefore my opinion is, that this excremental humour, is unto it like a menſtruous purgation, for the want whereof it dyeth ſpeedily. Every part of this Beaſt is called Musk, which cometh forth of his ulcerous iſſue; for although the other parts ſmell ſweet, yet we will ſhew afterwards more at large, that it is not of themſelves, but by reaſon of this humor.

The beſt musk declared by theſe ſeveral Countries.

The pretiouſneſs of this thing deſerveth a further treatiſe, for thy better direction and inſtruction of the knowledge hereof, both for the choiſe of that which is beſt, and for the avoiding and putting away of that which is adulterate. At *Venice* at this day it is ſold in the cods, and the *Indian* Musk is better then the *African*. The brown is always better then the black, except it be of *Catha*; for that of *Catha* is black, and beſt of all. There is ſome that is yellowiſh, or betwixt red and yellow, after the very ſame colour of Spikenard; this alſo is of the beſt ſort, becauſe the Beaſts that render it do feed upon Spikenard.

Sylvius.

Avicenna.

Therefore this is good to be choſen, becauſe it cannot be adulterated, and beſides the taſt of it is bitter, and aſſoon as ever it is taſted, it preſently aſcendeth to the brain, where it remaineth very fragrant without reſiſtance, and is not eaſily diſſolved. It is not bright within, but muddy, having broad grains, and equal throughout, like the wood of Baulm. But according to the Regions, they chuſe Musk in this ſort.

Elluchacem.

Serap.

Of the *Indian* Musk, that of the Region of *Sceni*, (called *Antebeum*,) they ſet in the firſt place, and next unto it, the Beaſts of the Sea ſide; The Musk of *Cubit* is known by the thin bladder of the Beaſt wherein it is contained; but that of *Gergeri*, is leſs Aromatical, and more thick. The Musk of *Caram* is in the middle place betwixt both, wherewithal they mingle powder of Gold and Silver, to encreaſe the waight. The musk of *Salmindy* is worſt of al, becauſe it is taken out of his bladder or cod, and put into a glaſs. There are ſome which prefer the *Tumbaſcine* Musk, and they ſay, that the odor thereof cometh from the ſweet herbs whereupon the Beaſt feedeth, and the like is ſaid of the Region of *Sceni*; but the odor is not equal to the other. And the *Tumbaſcines* do not gather the Musk after the faſhions of others: for they draw not forth this matter out of the cod, nor yet gather it in calm weather. The *Genians*, they preſs forth the matter out of the ventricle, and when they have it forth, mingle it with other things, and that in cloudy and tempeſtuous weather: afterwards they put them up in glaſſes, and ſtop the mouth cloſe, and ſo they ſend it to be ſold unto the *Sarizines*, and to *Amanus*, and to *Parſis*, and to *Habarac*, as if he were a *Tumbeſcine*. When this Beaſt goeth furtheſt from the Sea, and feedeth toward the Deſert upon Spikenard, then is his Musk ſweeter, but when they feed neer the Sea, it is not ſo fragrant, becauſe they feed upon Myrrh. *Avicen* ſaith, there is ſome kinde of Musk like a Citron, but ſuch hath not been ſeen in this part of the world, for our Musk is moſt commonly like the colour of Iron, and the ſavour of it like a *Cyrenian* Apple, but ſtronger; and conſiſteth of little pieces, but it is better that hangeth together, and hath a ſavour of the Wilderneſs; but if it be adulterated with Snakes or Birds-dung, then will it be leſſer pleaſant in the ſavour, and alſo pinch and offend the noſe.

The Hunters of *Tebeth*, and *Seni*, as we have ſhewed already, do kill their ſweet Roſe, and afterwards take out from them their bladder of Musk, which Musk being excerpted before it be ripe, ſmelleth ſtrongly and unpleaſantly. And then they hang it up a little while in the open and free air, wherein it ripeneth as it were by concoction in the Sun, and thereby receiveth an admirable ſweetneſs. And the like do divers Gardners uſe towards Apples, and fruits of trees which are gathered before they be ripe. For by laying them up in a dry place, they wear away their ſharpneſs and become pleaſant. But it is to be remembred, that Musk is the beſt which doth ripen in its own cod, before it be taken out of the Beaſt, for before it is ripe, it ſmelleth diſpleaſantly.

The tryal of Musk.

There is not much perfect Musk brought into this part of the World, but the ſtrength of it cometh from the vertue of the cod wherein it is put, and ſo it is brought to us; but the beſt is brought out of the Eaſt, where groweth Spikenard and ſweet herbs. *Rodericus Luſitanus* ſaith, that our Musk is compounded of divers things, the ground whereof is the bloud of a little Beaſt like a Cony, which is brought out of *Pegun* a Province of *India*. But the means whereby to try it may be this, after it is waighed, they put it into ſome moiſt or wet powder, and after a little while they weigh it the ſecond time, and if it exceed the former waight, then do they take it for ſound, perfect, and good, but if it do not exceed, then do they judge it adulterate.

Simion Sethi.
Sylvius.

Some Merchants when they are to buy Musk ſtop it to their noſes, and holding their breath run half a ſtones caſt, afterwards they pull it from their noſe, and if they perceive the ſavour of the Musk, then do they buy it, and take it for good, but if not, they refuſe it for corrupted. In ſome Churches they make perfumes with Musk, and by mingling Stirax, Aloes, Amber, and juyce of Roſes, they make a perfume called *Regium Suffumigium*, the Kings perfume; likewiſe unto ſweet waters, drawn out of the furnaces of Chymiſts, whereunto they add ſimple Roſe Water, and for the richer ſort of people Musk and Camphory.

Platearius.

Andreas Furnerius, in his *French* Book of adorning mans nature, teacheth a compoſition to be made of certain Oyls, Sope, and Musk; and alſo Ointments and musked Oyls. He alſo ſheweth how to make little round Balls of Musk, and other confections, and afterwards to draw a thread through the middle of them, and ſo wear them about ones neck.

The preſerving of Musk.

Some put it into Silken wool, through which they firſt draw a thread, and ſo diſſolve it in Roſe water, afterward make it up in medicines, and uſe it as aforeſaid. It may be preſerved in a veſſel of

Lead, cloſe ſtopped a long time, for the lead which is cold and moiſt, agreeth well with the nature of the Musk, and therefore if a leaden veſſel be wanting, ſo as ye be forced to uſe glaſs and ſilver, then muſt you put two or three pieces of lead into it, for the better preſervation, and covering the paſſage all over with Wax, and above all things you muſt avoid all kinde of Spices, taking heed that no grain thereof come into it. If while it is in the veſſel it loſe the ſavour and be dead, then it is to be recovered by opening the mouth of the Vial, and hanging it over a privy; for when the ſtink and evill ſavour cometh unto it, *Contra fœtorem eluctatur*, *& quaſi luctando reviviſcit*, it ſtriveth againſt the filthy ſtink, and as it were reviveth in that contention, ſaith *Iſidorus*, *Albertus*, and *Platearius*.

Benedictus. The adulterating of Musk, and the means to deſcry it.

But concerning the adulterating of Musk, I will ſay more in this place. Firſt of all, the Mountebanks do corrupt it by mingling with it the liver of a Calf. Alſo by a root called *Makir*, and an herb *Salich*. Many times the dung of Mice is ſold for Musk, and ſo great is the deceit herein, that a man may not truſt the outward ſhape of an intire cod, for there be Impoſters which can counterfeit them, and make them in all parts for the outward appearance, and fill them with certain ſtuffe, interpoſing ſome little true Musk among it until it have a reaſonable ſavour, and therewithal deceive ſimple people.

It is alſo adulterated by mingling with it a little Goats bloud fryed, or brown Bread fryed, ſo that three or four parts of theſe, will receive ſeaſonable taſt from one part of the Musk. It is alſo adulterated in the skin by putting pieces of the skin into it, and it may be known from the true Musk, becauſe it will weigh twice ſo heavy. The *Sarazens* uſe this ſhift above all others, and there is one principal way of making counterfeit Musk, which is this; they take Nutmegs, Mace, Cinamon, Cloves, Gilly-flowers, and Spikenard, of every one a handful, all theſe being beat diligently together, and dryed and ſifted, they are mingled with the warm bloud of a Dove, and afterwards dryed in the Sun, then are they ſeven times ſprinkled over, or moiſtened with the water of Musk-roſes, and betwixt every ſprinkling they are dryed; at length they mingle therewithall a third or fourth part of true Musk, and then ſprinckle it over again with Musk-roſe-water, ſo divide it into three or four lumps, and take the white hairs from under the tail of a Roe or Kid, and ſo put it in a veſſel of glaſs.

Benyvine, white Wax taken out of a new Hive of Bees, the rotten part of Eve-tree, and a little Musk, are mingled all together to make a counterfeit Amber, for it will ſmell like Civet, or Musk, or elſe Stirax, and the powder of Lignum-aloes, with Civet, and Roſe-water; but the fraud in one and other is eaſily deprehended, for both the odor and the colour are different from the true Amber, and alſo it will ſooner wax ſoft in water, then that which is natural.

Some do corrupt their Musk with the ſeed of Angelica, or rather with the root of it, becauſe the root ſmelleth ſweet like Musk, but the coſenage may be eaſily diſcovered, by putting it into water: for the Angelica will ſink, and the Musk will ſwim. The true Musk is ſold for forty ſhillings an ounce at the leaſt. It is alſo obſerved by *Arnoldus Villanovanus*, that in the preſence of *Aſſa fœtida* or *Caſtoreum*, the beſt Musk will have a horrible and intolerable ſavour, although they touch not one another, which cannot be aſcribed to any known reaſon, but to ſome ſecret in nature. The ſweetneſs of the *Arabian* Musk is deſcribed by *Alciatus* in this verſe;

Et celebris ſuavi eſt unguine Muſcus Arabs.

Herbs reſembling Musk.

There be divers herbs which ſmell ſweet like Musk, as Angelica, Dorſis, Musk-gilliflowers, Musk-grapes, the leaves of a Winter Cherry, and an herb growing near *Baſil* without a name, like wilde Parſley, the Damaſine-roſe, and many other. Wilde Cats and Martins do alſo render an excrement mnch like Musk; and there are Hares called *Moſchiæ*, which leave ſuch an intolerable ſmell in the impreſſion of their foot-ſteps, that the Dogs by touching them grow mad, as we have ſhewed in the ſtory of the Hare: And thus much for the deſcription of this Beaſt; now followeth the medicines.

The Medicines of the Musk-cat.

A very little part or quantity of a Musk-cat is of great vertue and efficacy; wherefore it is very ſparingly uſed in medicines or potions, neither is there any part thereof beaten or bruiſed, as it is of all other Beaſts, but it is melted and diſſolved in water which proceedeth from the ſweeteſt Roſes. It is alſo a Beaſt which is very hot and dry, but rather more dry then hot, yet notwithſtanding the ſame his heat is aſſwaged and allayed by no other thing but only the Gum called Camphire; and his drineſs is only moiſtned or mollified with Oyls, and very ſweet, as Oyl of Violets, and Oyl of Roſes. Amongſt ſweet ſmels and ſavours, the principalleſt and chiefeſt laud and commendation is attributed unto the ſmell which proceedeth from the Musk-cat: For he doth not only with his odoriferous and delightful ſavour pleaſe and content the ſcent of men, but alſo doth ſtrengthen the ſpirits, and all the parts of mans body, yea and that in a moment, for the ſlenderneſs of his parts, which although it doth forthwith penetrate or enter into the ſcent of man, yet doth it endure longer, and is not ſo ſpeedily or quickly diſſolved as the ſcent or ſavour of any other ſweet ſmell whatſoever.

Symeon.

Iſidorus.

A Musk-cat and the herb called Mercuries-fingers or Dogs bane, being given in purging medicines to drink, do greatly renew and refreſh the decayed ſtrength or force of thoſe which have been before times weakened with divers and continual medicines in their members. The ſame is alſo very profitable for thoſe which are effeminate or defective, and eclipſed in their minde or courage, as alſo for thoſe which are weak and feeble in their joynts, not by any hurt, or any other caſuality being enfeebled, but being always ſo even from their childhood. A Musk-cat is an excellent remedy for thoſe which are troubled with fear in their heart; and alſo for thoſe which do quiver or ſhake either for fear of any other thing throughout all the parts of their body. The ſame is a very profitable and medicinable cure for thoſe which are grieved with any ach or pain in their head, or with any enormity or trouble in their liver, and is alſo being given ſimply by it ſelf, without any thing mixed in it, or compounded in Wine, very good and wholeſome for the healing and curing of thoſe who have any pain or grief in their ſtomach, which cometh by the occaſion of any cold.

Dioſcorides.

A Musk-cat being put unto the body of any man in the form or manner of a plaiſter, doth confirm and make ſtrong both his heart and all the reſt of his bowels, or interior parts: it doth moreover encreaſe both ſtrength and power in all his members, yea and in the very bones, the efficacy thereof is of ſuch and power and vertue. The ſame being laid or anointed upon the head, is very effectual for the expelling or driving away of the rheume which falleth from the head into the noſtrils, and by that means procureth heavineſs in the ſame; and for the amending and curing of the ſwimming dizzineſs or giddineſs in the head through the abundant humors which remain and ſtay therein, and alſo for the bridling and reſtraining of luſt and venery.

Avicenna.

Raſis.

Braſſavolus.

The ſame being uſed in the aforeſaid manner doth temperate and confirm the brains of any man, beſides it eaſeth and helpeth thoſe which have pain about their heart, by the which they ſuppoſe their very heart to ake. The ſmell of this Beaſt is both profitable and hurtful; for unto thoſe which are cold of conſtitution, the ſcent is very pleaſant in regard that it is hot of it ſelf, and is very delightful in their ſavours: but unto thoſe which are hot of nature it is very noiſome, in regard that the heat and ſtrong ſcent thereof overcometh their ſenſes, and oftentimes cauſeth their heads to ake, and be full of pain; and doth alſo ſtir up in them that peſtiferous diſeaſe called the Falling-ſickneſs: but unto women which are of a hot and fiery conſtitution it is more hurtful and noiſome, for it breedeth in them a very peſtiferous diſeaſe, which choaketh their Matrice or Womb, and cauſeth them oftentimes to ſwound, it is alſo called by ſome the Mother. The ſneezings of a Musk-cat is an excellent remedy againſt the reſolution of the ſinews or the Palſie. A Musk-cat is very good and wholeſome for the helping and curing of thoſe which are troubled with any deafneſs or aſtoniſhment in any part of their bodies; as alſo for the driving away of melancholick and ſorrowful paſſions out of mens mindes, and for the incitating delightful mirth and pleaſure in them.

Platearius.

A Musk-cat being mingled with dry plaiſters which are uſed for the healing of the eyes, is an excellent remedy for the expelling and driving away of the white skin which doth uſually cover the ſight, and for the drying up of moiſt rheumes and humors, which in the night time do fall from the brains and the head, and by that means doth much hurt and damage the ſight of the eyes, as alſo for the clarifying and healing up of any pain or diſeaſe therein.

A Musk-cat is an excellent remedy for thoſe which have a deſire to vomit and cannot, it doth alſo renew an appetite or ſtomach in thoſe unto their victuals which do loath and abſtain from all ſuſtenance, and doth looſen and diſſolve all thick puffings or windineſs in the interior parts or members of any one.

A Musk-cat being mingled with a cauſtick medicine, is very profitable and wholeſome for the bringing forth of thoſe Womens menſes or fluxes which are ſtopped, and alſo for moving conception in thoſe women which are hindered in it by the occaſion of ſome great cold.

Avicenna.

A medicine or ſuppoſitory being made of Ambergreeſe, and mingled with a gum comming out of *Syria* called *Styrax*, and then mixed both together with a Musk-cat and ſo beaten, until they come unto a certain ſalve, and laid unto the ſecret parts of a woman, is very good for the aforeſaid diſeaſe. There is a certain juyce or moiſtneſs in a Musk-cat which being preſſed forth or diſſolved, and mixed with the Oyl called Palma Chriſti, and anointed upon the yard of any man, doth ſtir him up to luſt and venery. If the leaſt part of a Musk-cat be eaten by any one which is troubled with a ſtinking breath, it will preſently expel and take away the ſtink thereof. And thus much ſhall ſuffice concerning the cures and medicines of the Musk-cat.

Of the *MVLE.*

The ſeveral names.

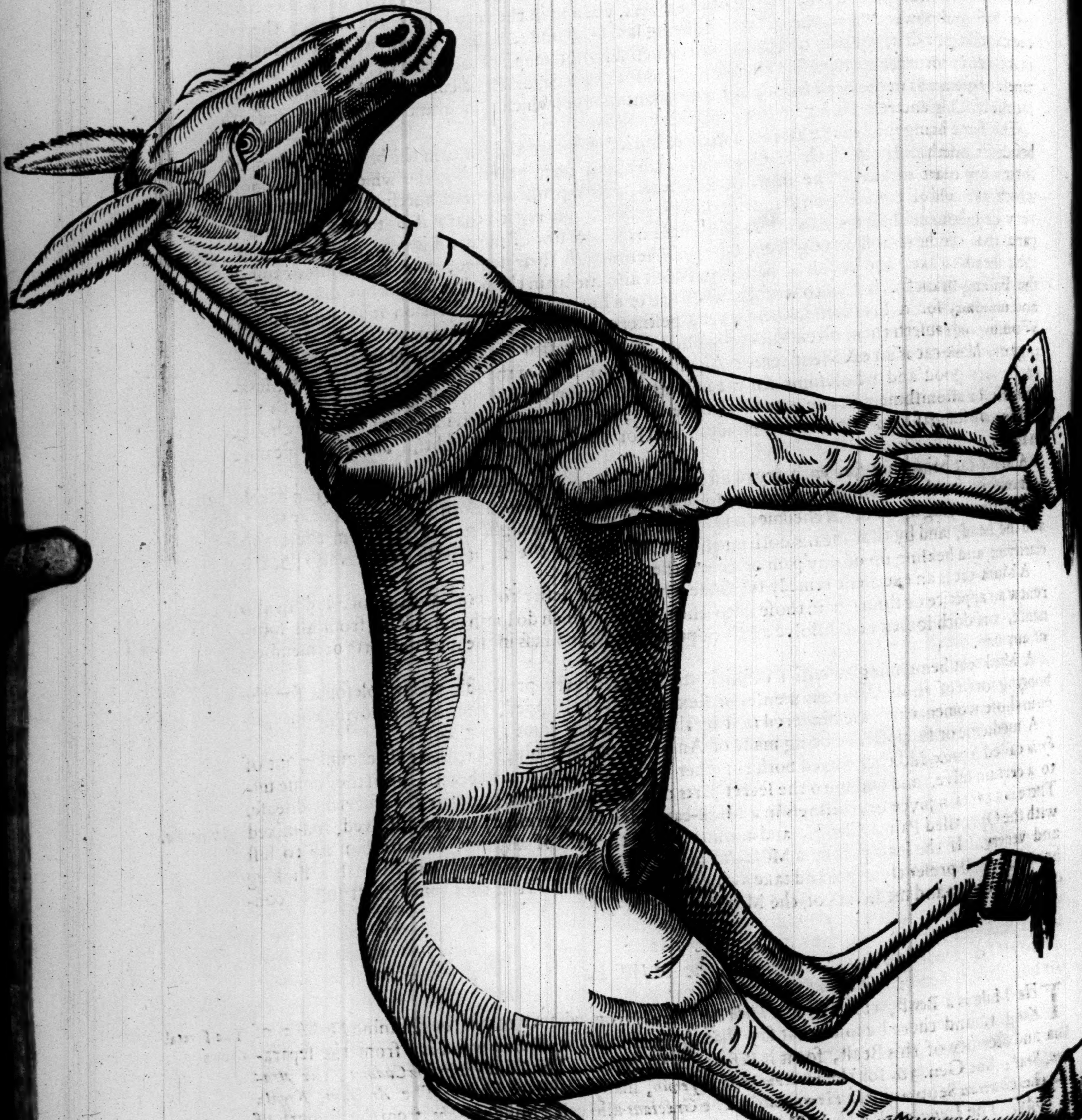
THe Mule is a Beaſt, called by the *Hebrews, Pered*, from whence comes the feminine *Pirdah* 3. of King. 1. and there be ſome that ſay that the reaſon of the *Hebrew* word is, from the ſeparation and ſterility of this Beaſt, for it is *Pered, quia non pariat*. The *Chaldy* word is *Cudana*, the *Arabian, Beal*; but Gen. 36. for the *Hebrew* word *Jemin*, many tranſlate Mules. The *Arabians, Kegal*; but the *Grecian* Septuagints, *Hemionous*. The *Grecians* alſo call a Mule *Aſtrabe*, from the ſtrength of his body. The *Latines* call a Mule *Mulus*, and *Semiaſinus*, that is, half an Aſs, becauſe on the one ſide he is an Horſe, and on the other ſide an Aſs, and therefore in his conditions he more reſembleth

Plutarch.

an Aſs then an Horſe, whereupon lyeth this tale. A certain *Lydian* Mule ſeeing his Image in the water, grew to be afraid of the greatneſs thereof, and thereupon took his heels and ran away as faſt as he could; neither could he be ſtayed by all the wit of his Keepers: At length the Mule remembring that he was the ſon of an Aſs, he ſtayed his courſe and came back again neighing. The *Italians* call a Mule *Mulo*, and the female *Mula*, like the *Latines*, and the *Spaniards*. The *French*, *Mulet*, and the female *Mule*, from whence cometh the *Engliſh* word Mule. The *Germans*, *Multhire*, or *Muleſel*. The *Illyrians*, *Meſeck*, and the *Flemings*, *Mul*.

Divers kindes of Mules.

There is another kinde of Mules in *Syria*, divers from thoſe which are procreated by the copulation of a Mare and an Aſs, and they receive their names from the ſimilitude of their faces. For there is no other cauſe, why wilde Aſſes ſhould be called Aſſes, but only their ſimilitude of tame Aſſes. And as among wilde Aſſes ſome of them are ſingularly ſwift, ſo alſo among theſe *Syrian* Mules, there are ſome excellent ſpeedy Courſers. Theſe Mules procreate in their own kinde, and admit no mixture, which *Ariſtotle* proved by nine of them which were brought into *Phrygia*, in the dayes of



Pharnaces,

Pharnacas, the father of *Pharnabazus*. *Theophraſtrus* alſo reporteth, that in *Cappadocia*, the Mules engender among themſelves, which *Ariſtotle* remembreth in his wonders, and he might well have ſpared it, for they are a kinde of Cattel among themſelves. There be flocks of Aſſes and Mares in *India*, where the Mares do willingly admit the Aſſes in copulation, and bring forth red Mules, the beſt of all other for running.

Pliny.

Ælianus.

But among the *Indian* Phyllians, their Aſſes, Mules, Oxen, and Horſes, are no bigger then Rams. As the Mule is begotten betwixt an Aſs and a Mare, ſo the Burdon is begotten betwixt a Horſe, and a ſhee-aſs, wherefore the *Italians* call him *Mulo Baſtardo*, that is, a Baſtard Mule. For as the Mule more reſembleth the Aſs then the Horſe, ſo the Burdon more reſembleth the Horſe then the Aſs: the reaſon is; becauſe all kindes follow the father. The Mule hath ſome parts proper to the Aſs, as long ears, a terrible voyce, a croſs upon the ſhoulders, ſmall feet, a lean body, and in all other things it reſembleth a Horſe. The length of their ears ſerveth inſtead of their fore-top, their color is ſomewhat brown, but it varieth; for the *Roman* Cardinals have Mules of an aſh-colour, and thoſe very great ones with long tails.

The generation of Burdons.

The parts of Mules and their colour.

They change their teeth, and have in number ſix and thirty, their neck is like the neck of an Aſſes, long, but not ſtanding upright, their bellies ſimple and of one quanty, They want a gall like all four-footed Beaſts; and there is a thing in their heart like a bone, as we have ſhewed before in the ſtory of the Aſs.

They eat ſuch food as Horſes, and Aſſes do; but they grow fat by drinking, yet they drink not like a Horſe, by thruſting in their noſes into the water, but only touch it with their lips.

The food of Aſſes.

They love Cucumbers above all other meats, but the flowers and leaves of Rhododaphne are poyſon to Mules and Aſſes, and to many four-footed Beaſts. Both a Mule and a Horſe grow from the firſt coming forth of their teeth, (by which their age is diſcerned) and after all their teeth are come forth, it is hard to know their age. The females in this kinde are greater, more lively, and live longer then the males. It hath been found that they have lived to fourſcore years of age. Such a one was preſented at *Athens*, at what time *Pericles* builded the Temple of *Minerva*, where by reaſon of his age, he was diſmiſſed from all labour, yet afterwards he would not forſake his companions, but went with them, exhorting them with neighing to undergo the labour cheerfully; whereupon there was a publick decree, that the ſaid Mule ſhould have an ordinary of provender appointed him in *Prytanium*, and that no body ſhould drive him away from their Corn when he eat it, although it were in the Market place.

Mizaldus.

Dioſcorides.

The length of a Mules life.

Ariſtotle.

Ælianus.

We have ſhewed already that this Beaſt is engendered betwixt an Aſs and a Mare, and therefore if a man would create unto himſelf a notable breed of Mules, he muſt look to the choice both of his male and female. Firſt of all for the female, that ſhe be of a great body, of ſound bones, and of ſingular good ſhape, wherein he muſt not ſo much expect her velocity or aptneſs to run, as her ſtrength to endure labour, and eſpecially to bear in her womb a diſcordant foal, begotten by an Aſs, and to confer upon it both the properties of his body, and the diſpoſition. For when Mares do unwillingly receive the genital ſeed of the Aſs, the foal doth not grow to perfection in the Mares belly, until ſhe hath born it thirteen months, whereby it reſembleth more the ſluggiſh and dull nature of his father, then the vigor of his mother. But for the helping of their copulation, they pull certain hairs out of the tail of the female, and afterwards binde them together therewith.

The generation of Mules.

The election of a Mare to Mules.

Pliny.

There is no leſſer regard to be had of the Stallion, leſt the want of judgement in the choice of him do fruſtrate the experiment; ſeeing therefore they are engendered betwixt a Mare and an Aſs, or betwixt a Mare and a wilde Aſs, and the Mule, begotten betwixt the wilde Aſs and the Mare, doth excel all others, both for ſwiftneſs of courſe, hardneſs of foot, and generoſity of ſtomach: yet is the tame Aſs better for this breed then the wilde Aſs, for he will be more beautiful in outward form, and more tractable in diſpoſition; and the Mules engendered by wilde Aſſes may be compared to theſe; yet can they never be ſo tamed, but they retain ſome qualities of their wilde father; and therefore a Mule begotten betwixt them (I mean betwixt a wilde male Aſs and a tame female Aſs) are fitter for Nephews then for ſons; that is, their foals may beget good Mules, and ſuch as are tameable and tractable, becauſe deſcent breaketh the corruption of nature, but themſelves do never prove profitable.

The choice of a Male.

And therefore it is moſt commodious and neceſſary to get ſuch a Stallion Aſs to the procreation of Mules, whoſe kinde by experiment is excellent, and outward parts every way acceptable, ſuch as theſe are; a long and great body, a ſtrong neck, ſtrong and broad ribs, a wide breaſt full of muſcles, loins full of ſinews, ſtrong compacted legs, of colour blackiſh or ſpotted, for the Mouſe colour is too vulgar, and is not fit in a Mule. For it is but folly in a man to allow and approve every colour he looketh upon, and therefore (*Columella* writeth) when there are ſpots upon the tongue and palat of a Ram, ſuch alſo are found in the Wooll of the Lamb he begetteth.

And ſo alſo if an Aſs have divers coloured hairs upon his eye-brows, or upon his ears, the foal he bringeth forth hath ſuch colours in his ſkin; And hereunto agree both *Palladius*, and *Abſirtus*, ſaying; he that will have a good breed of Mules, muſt get an Aſs of elegant form, a great ſtature, ſquare members, a great head not like a Horſes, his face, cheeks, and lips not ſmall, his eyes ſtanding out of his head, and not little or hollow, broad noſtrils, great ears, not hanging down, but ſtanding upright; a broad and a long neck, a broad breaſt, rough with the plaights of his muſcles, and ſtrong to endure the kickings of the Mare: great breaſts, plates, and other parts under his ſhoulders, and ſo down to his legs, which ought to be ſtrong, broad, and corpulent, and ſtanding far aſunder, ſo as he may eaſily cover the Mare.

A great back, and broad back-bone, neither hollow, nor ſtanding up with bunches, bearing a direct line upon the middle. His ſhoulders not low, but ſtanding up, the hip-bone full and long, not bending too narrowly nor pinde buttockt, nor ſtanding out ſharp, and they are beſt which have the ſhorteſt tails.

Furthermore let his ſtones be great, his knees great and round, ſtanding both alike, his legs bony and without fleſh, nothing appearing in them but nerves and skin; not ſtanding awry, nor yet of divers colours, his paſterns not high, nor yet over-low: his feet not low nor bending inward; his hoof thick and hollow within; the inward part of it being clear, according to the ſaying of *Juvenal*:

Namq; hic mundæ nitet ungula Mulæ.

His voyce clear and not hoarſe, for ſo the Mare will be terrified from copulation. His colour ought to be likewiſe clear, as all black, having no white belly; or ſomewhat looking towards purple, and having one black ſpot upon his mouth, or rather a black tongue, and ſuch as hath been brought up with Horſes.

It is the faſhion of ſome to take wilde Aſſes to tame them, to make Stallions for generation, for they beget the beſt Mules, if they be liberally fed and not incloſed, and never wax wilde again if they
Abſyrtus. be put among tame Aſſes. And the young one ſo gotten by him, will be like the ſyre: and if any have a deſire to make the Mules of ſtrange colours, they muſt cover the female with a cloth of that colour, wherewithal they deſire the young one to be foaled, as we have ſhewed already in the diſcourſe of Horſes, whereby there are raiſed many excellent kindes and races; or elſe they bring in their preſence at the time of their copulation ſome great Male Horſe or Aſs, by the ſight whereof they are made more fruitful, or again, ſome baſe and deſpiſable Beaſt being offered to their view, doth make them to conceive more noble Mules.

If the wilde Aſſes be at any time heavy, and not willing to cover the Mare, then let there be another female Aſs brought into the preſence, by the ſight whereof his luſt ſo burneth, that he rageth almoſt to madneſs for copulation: And therefore being denyed, the Aſs doth more willingly leap upon the Mare, whom before he loathed. Again, it muſt be regarded, that the Stallion be tyed and bound faſt, ſo that he may not cover the Mare after ſhe is with foal, nor yet have acceſs unto her, leſt by kicking and biting he cauſe abortment, for many times they break their bonds aſunder, and greatly trouble the females with young, therefore they are accuſtomed to ſome labour, which taketh down the heat of their luſt: yet at the time that they are to cover the Mares, you muſt uſe all diligence to awaken the drowſie nature of the Beaſt, ſo that with greater ſpirit the ſeed of the male and female may meet together.

The Aſſes of *Lybia* will not cover Mares that have manes until they be ſhorn off, for it ſeemeth they diſdain that their females ſhould have more ornaments then themſelves, which are their husbands.

We have ſhewed already in the diſcourſe of the Aſs, that Mares do not willingly admit any Stallion Aſs to cover them, except it be ſuch a one as did ſuck a Mare, which we called a Horſe-ſuckling, or *Equimulgus*. For this cauſe men that propound unto themſelves to nouriſh races of Mules, take the Colt of an Aſs ſo ſoon as it is foaled, and put to it a Mare, giving milk in ſome dark place, wherein the Mare not doubting any fraud, is deceived, and willingly yeeldeth her udders to the Aſſes foal; whereunto being accuſtomed for ten days together, at laſt ſhe taketh it for her own; and ſuch a Stallion Aſs loveth Mares exceedingly: and on the other ſide, the Mare refuſeth not him. And ſome ſay, that although they ſuck their mothers milk, yet if from the time of their weaning they be brought up among Horſe-colts, it is as good as if they had ſucked Mares.

If the Aſs be ſmall which is a Stallion, he will quickly wax old, and his iſſue be the worſe, therefore they muſt provide the largeſt and ſtrongeſt Aſſes, and nouriſh them with the beſt Hay and Barly, that ſo his ſtrength may abound before his copulation. He ought not to be under three years old, nor yet brought unto a Mare which never knew Male, for ſuch a one will beat him away with her heels and mouth, and bring him into perpetual hatred with that kinde; wherefore they uſe to bring ſome vile and vulgar Aſs into the preſence of the Mare, as it were to woo her, and provoke her to copulation, that ſo if ſhe beat him away, it may be no hinderance to the Stallion; but if ſhe ſeem to admit him, and deſirous of copulation, then they take him away, and bring the appointed Stallion into his room, and ſo the Mule is engendered.

For the effecting of their copulation, there muſt be a place appointed for the purpoſe, betwixt two walls, having a narrow paſſage, that ſo the Mare may not have liberty to fight with the Aſs, and the Mares head muſt be tyed down to a Manger or Rack, the ground being ſo faſhioned, that her fore-feet may ſtand much lower then her hinder, and ſo aſcend backward, to the intent that the Aſs may more eaſily leap upon her back, and ſhe receive the ſeed more deeply. When the Mare hath brought forth the Mule, ſhe giveth it ſuck half a year, and then driveth it away, which ought to be brought up in ſome Moutains, or hard places, that ſo the hoofs may grow hard and indurable.

Having thus diſcourſed of the generation of Mules, it now followeth, that we ſhould enquire, whether Mules thus engendered betwixt an Aſs and a Mare, do likewiſe bring forth in their own kinde. *Obſervatum eſt* (ſaith *Pliny*) *è duobus diverſis generibus tertii generis fieri, & neutri parentum eſſe ſimilia, eaq; ipſa quæ ita nata ſunt, non gignere, in omni animalium genere, idcirco Mulas non parere.* That is to ſay; It hath been obſerved, that out of two divers kindes, a third hath been engendered, and yet like to neither of the parents, and thoſe ſo engendered did not procreate others in the univerſal kinde of Beaſts, or among all creatures; and therefore Mules conceived betwixt Aſſes and Mares, do not bring forth young. Whereupon *Camerarius* made this pretty riddle of a Mule:

Diſſimilis patri, matri diverſa figura
Confuſi generis, generi non apta propago,
Ex aliis naſcor, nec quiſquam naſcitur ex me.

Democritus is of opinion alſo, that Mules cannot conceive, and that their ſecret places are not like other Beaſts, and the iſſue of confuſed kindes can never engender, but eſpecially in a Mule, becauſe it is made of divers ſeeds, (I mean divers in quantity, and almoſt contrary) for the ſeed of the Aſs is cold, and the ſeed of the Mare is hot.

Ariſtotle diſputing of this matter concerning thoſe kindes that are procreated of divers parents, writeth in this ſort: thoſe Beaſts joyn in copulation, whoſe kindes although they are divers, yet are not their natures very diſagreeable. If the quantity and ſtature be alike, and the times of going with young be equal, yet they remain barren that are ſo begotten, of which cauſe *Empedocles* and *Democritus* yeeld reaſon: *Empedocles* obſcurely, and *Democritus* more plainly, but neither of them both well; for they alledge the ſame demonſtration about all Beaſts out of their kinde. *Democritus* ſaith, that the paſſages of the Mules are corrupted in their wombs, becauſe their beginning doth not conſiſt of one and the ſame kinde; but this is no reaſon, for that it happeneth alſo to other Beaſts that do engender.

Empedocles he yeelds a reaſon out of *Plutarch*, about the joyning together of the ſeeds, and therefore compareth it to a commixtion of Tin and Braſs together, but he ſaith he doth not underſtand their meaning, and therefore proceedeth to expreſs his own opinion in theſe words. Firſt (ſaith he) every one of the Males do beget one of their own kinde, but the females cannot conceive, and this is no great wonder; becauſe that Horſes are not always fit for generation, nor Mares to bring forth Colts being covered: and therefore when Aſſes and Mares do couple together, their iſſue may be more barren, becauſe they receive the greater hinderance in the diverſity of kinde; for beſides the coldneſs of the Aſſes ſeed which may be one great cauſe of his barrenneſs, they have another property, if they do not breed and engender before the caſting of their Colts-teeth, they remain ſteril and barren all their life long: for ſo doth the generative power of the Aſſes body reſt upon a tickle and nice point, apt to riſe, or eaſie to fall away to nothing.

And in like ſort, is a Horſe prone to barrenneſs, for it wanteth nothing but cold ſubſtance to be mingled with his ſeed, which cometh then to paſs when the ſeed of the Aſs is mixed with it, for there wanteth but very little, but that the Aſſes ſeed waxeth barren in his own kinde, and therefore much more when it meeteth with that which is beſide his nature and kinde.

This alſo hapneth to Mules, that their bodies grow exceeding great, eſpecially becauſe they have no menſtruous purgation, and therefore where there is an annual breeding or procreation, by the help and refreſhing of theſe flowers, they both conceive and nouriſh; now theſe being wanting unto Mules, they are the more unfit to procreation.

The excrements of their body in this kinde they purge with their urine, which appeareth becauſe the male Mules never ſmell to the ſecrets of the female, but to their urine, and the reſidue which is not voided in the urine, turneth to encreaſe the quantity and greatneſs of the body, whereby it cometh to paſs, that if the female Mule do conceive with foal, yet is ſhe not able to bring it forth to perfection, becauſe thoſe things are diſperſed to the nouriſhment of her own body, which ſhould be imployed about the nouriſhment of the foal: and for this cauſe, when the *Egyptians* deſcribe a barren woman, they picture a Mule.

O us.
An Emblem.

Alexander Aphrodiſeus writeth thus alſo of the ſterility of Mules. Mules (ſaith he) ſeem to be barren, becauſe they conſiſt of Beaſts divers in kinde, for the commixtion of ſeeds, which differ both in habit and nature, do evermore work ſomething contrary to nature, for the aboliſhing of generation; for as the mingling together of black and white colours doth deſtroy both the black and white, and produce a ſwart and brown, and neither of both appear in the brown; ſo is it in the generation of the Mules, whereby the habitual and generative power of nature is utterly deſtroyed in the created compound, which before was eminent in both kindes, ſimple and ſeveral. Theſe things ſaith he.

Alcmæon, as he is related by *Plutarch*, ſaith, that the male Mules are barren by reaſon of the thinneſs and coldneſs of their ſeed, and the females becauſe their wombs are ſhut up, and the veins that ſhould carry in the ſeed, and expel out the menſtruous purgation, are utterly ſtopt. And *Empedocles* and *Diocles* ſay, that the womb is low, narrow, and the paſſages crooked that lead into it, and that therefore they cannot receive ſeed, or conceive with young: whereunto I do alſo willingly yeeld, becauſe it hath been often found that women have been barren for the ſame cauſe. To conclude therefore, Mules bear very ſeldom, and that in ſome particular Nations if it be natural, or elſe their Colts are prodigious, and accounted monſters.

Concerning their natural birth, in hot regions where the exterior heat doth temper the coldneſs of the Aſſes ſeed, there they may bring forth. And therefore *Columella* and *Varro* ſay, that in many parts of *Africk*, the Colts of Mules are as familiar and common, as the Colts of Mares are in any part of *Europe*.

Mules engender.

So then by this reaſon it is probable unto me, that Mules may ingender in all hot Countries, as there was a Mule did engender often at *Rome*; or elſe there is ſome other cauſe why they do engender in *Africk*, and it may be that the *African* Mules are like to the *Syrian* Mules before ſpoken of, that is, they are a ſpecial kinde by themſelves, and are called Mules for reſemblance, and not for nature. It hath been ſeen that a Mule hath brought forth twins, but it was held a prodigy. *Herodotus* in his fourth Book recorded theſe two ſtories of a Mules procreation; When *Darius* (ſaith he) beſieged *Babylon*, the *Babylonians* ſcorned his Army, and getting up to the top of their Towers, did pipe and dance in the preſence of the *Perſians*, and alſo utter very violent & opprobrious ſpeeches againſt *Darius* and the whole Army, amongſt whom one of the *Babylonians* ſaid thus: *Quid iſtic deſidetis ô Perſæ? quin potius abſceditis, tunc expugnaturi nos cum pepererint Mulæ.* O ye *Perſians*, why do you ſit here? wiſdom would teach you to depart away; for when Mules bring forth young ones, then may you overcome the *Babylonians*. Thus ſpake the *Babylonian*, believing that the *Perſians* ſhould never overcome them, becauſe of the common proverb, *epean emionoi tekoſin*, when a Mule beareth young ones. But the poor man ſpake truer then he was aware of, for this followed after a yeer and ſeven months: While the ſiege yet laſted, it hapned that certain Mules belonging to *Zopirus*, the ſon of *Megabizus* brought forth young ones, whereat their Maſter was much moved, while he remembred the aforeſaid ſong of the *Babylonian*, and that therefore he might be made the Author of that fact, communicated the matter with *Darius*, who preſently entertained the device; therefore *Zopirus* cut off his own noſe and ears, and ſo ran away to the *Babylonians*, telling them that *Darius* had thus uſed him, becauſe he perſwaded him to depart with his whole Army from *Babylon*, which (he ſaid) was in expugnable and invincible. The *Babylonians* ſeeing his wounds, and truſting to their own ſtrength, did eaſily give credence unto him; for ſuch is the nature of men, that the beſt way to beguile them is, to tell them of thoſe things they moſt deſire, for ſo are their hopes perſwaded, before they receive any aſſurances. But to proceed, *Zopirus* inſinuated himſelf further into the favour of the *Babylonians*, and did many valiant acts againſt the *Perſians*, whereby he got ſo much credit, that at laſt he was made the General of the whole Army, and ſo betrayed the City unto the hands of *Darius*: Thus was *Babylon* taken when Mules brought forth.

A Hiſtory of Mules.

Another Mule brought forth a young one, at what time *Xerxes* paſſed over *Helleſpont*, to go againſt *Græcia*, with his innumerable Troops of Souldiers, and the ſaid Mule ſo brought forth, had the genitals both of the male and female.

Unto this I may adde another ſtory out of *Suetonius*, in the life of *Galba Cæſar*. As his father was procuring Auguriſms or divinations, an Eagle came and took the bowels out of his hands, and carryed them into a fruit-bearing-oak, he enquiring what the meaning of that ſhould be, received anſwer, that his poſterity ſhould be Emperours, but it would be very long firſt: whereunto he merrily replyed; *Sane cum Mula pepererit*; I ſir, when a Mule brings forth young ones: which thing afterwards happened unto *Galba*; for by the birth of a Mule, he was confirmed in his enterpriſes when he attempted the Empire; ſo that, that thing which was a prodigy and cauſe of ſorrow, and a wonder to all other people, was unto him an ominous confirmation of joy and gladneſs, when he remembred his Grand-fathers Sacrifice and ſaying. Therefore it was not ill ſaid of *Democritus*; *Mulæ non naturæ opus, ſed humanæ machinationis, adulterinum inventum, & furtum eſſe videntur.* Mules are not the proper work of nature, but an adulterous invention of humane policy, robbing nature: for (ſaith he) when a certain *Median* found his Aſs covering of his Mare, whereupon afterwards ſhe fell to be with foal, and ſeeing the young one to communicate with both natures, they drew it into a cuſtom to cover the Mares with their Aſſes, for the engendering of ſuch a breed.

The invention of Mules. *Ælianus.*

Some are of opinion that Mules firſt began among the *Paphlagonians*, which before the *Trojan* war were called *Eneti*, and afterwards *Veneti*: but in Gen. 36. we finde that *Anah* the ſon of *Zibeon*, keeping his fathers Aſſes, did invent *Gemim*, that is, Mules, as ſome interpret. But rather I believe, that while Aſſes and Horſes ran wilde in the Wilderneſs among themſelves, the wilde Aſſes firſt began this race. The male at ſeven years old may engender, becauſe he is of a hotter nature then the female, and alſo doth not in his generation confer any part of his bodily growth to the young one, and ſometimes he engendereth when he hath loſt his foremoſt teeth, and after the firſt copulation, he never engendereth more. The young one ſo generated, is called *Ginnus* and *Pumilio*, for it is a very dwarf, according to the obſervation of *Martial*:

Ariſtotle. The quantity of a Mules foal.

His tibi de Mulis non eſt metuenda ruina,
Altius in terris pene ſedere ſoles.

Such as theſe were kept in the Court of the Duke of *Ferraria*, and although in all things they reſemble the mother, yet are named after the father, and ſuch alſo are the *Burdones* before ſpoken of in the ſtory of the Horſe. Mules are begotten both by Mares, She-aſſes, and Bulls, but yet thoſe are the beſt that are begotten betwixt an Aſs and a Mare. And thus much for the generation of Mules.

They are nouriſhed with the ſame meat that Horſes and Aſſes are, annoyed with the ſame ſickneſſes, and cured with the ſame means; generally bloud-letting is good for them, and for their diet Bullimung. In *Scythia* they can abide no cold, and therefore the Horſes are there uſed in ſtead of Mules. In ſome Countries the Horſes can abide no cold, but the Aſſes and Mules bear out (as *Herodotus* writeth,) and as we have ſhewed before in the ſtory of the Aſs: when the *Gracians* were at *Troy*, and were deſtroyed by a conſuming peſtilence, the firſt of all their company that dyed were their Dogs and their Mules, and the reaſon of it was, becauſe the peſtilence ariſing out of the earth, they by the ſenſe of ſmelling, which is very quick in both kindes, did firſt of all draw in that poyſon from the earth.

Sickneſſes of Mules and their cures.

Collumella ſaith, that the medicines for the Oxen do alſo cure Mules, yet there are ſpecial medicines not to be neglected, which we will expreſs in this place. For a Mule that hath a Feaver, give her raw Cabbage; and for one that is ſhort-winded uſe bloud-letting, and for a drink give it a pinte of Wine and Oyl mixed with half an ounce of Frankincenſe, and half a pinte of the juyce of Horehound. For the ſcratches or diſeaſe in the hoofs, lay to it Barley meal, then make ſuppuration with a knife, and cure it by laying two linnen clothes, or by a pinte of the beſt Garum, and a pound of Oyl infuſed into the left noſtril of the Mule, whereunto you may adde, the whites of three or four Egs ſeparated from the yolks.

The female Mule may be burned in the feet, or let bloud after the manner of Horſes, and ſome Countreymen give in their food the herb Vetetrum, or elſe the ſeed of Hyoſcamus or Hen-bane beaten to powder and drunk in Wine. For the languiſhing of the chine or leanneſs, they make this drink; have an ounce of beaten Brimſtone, a raw Eg, a penny weight of the powder of Myrrh, mingled all three together in Wine, and ſo poured down the Mules throat, is a preſent remedy to cure it. As alſo for the pain in the belly and all manner of coughs, the herb Medica is ſpecial good for the ſaid languiſhing diſeaſe. So alſo to fat the Mule if it be given green, and not dryed like Hay, a little at a time for fear the Beaſt be ſuffocated with overmuch bloud. When a Mule is tired or heated, let the load be taken off, and turn her forth to wallow in ſome convenient place. If that ſuffice not, take ſome fat, and put it into her chaps, that ſo ſhe may ſuck it down, and pour Wine after it.

Collumella.
Rutius.

For to keep the necks of Mules from wringing and looſening their skin, uſe this medicine, Take two pound of Hogs-greaſe ſod three times, or, unto the third part two pintes of Vinegar, and therewithall anoint the Mules neck. As we have ſhewed that the pains of a Horſes belly and guts are beſt of all cured by the ſight of a Mallard, ſwimming in the water, whereby they are ſpeedily delivered from all manner of torment, ſo the ſame hath as great or greater operation to cure the pains of the Mules belly. It is reported by *Avicen*, that Mules fall into madneſs, and in that madneſs bite their maſter mortally. They are likewiſe ſubject to the Gout, and eſpecially to ſwellings about the Crown of their paſterns, but they are cured as Horſes and Oxen.

Pelagonius

They live long, ordinarily to fifty years, and ſometimes to fourſcore, the reaſon thereof is given by *Cælius*: *Animalia quæ frequenter coeunt brevioris ſunt vitæ, inde fit, ut Muli equos ſuperent, videndi diuturnitate*; that is to ſay, Thoſe Beaſts and creatures which oftentimes joyn in copulation have but ſhort lives, and from thence it cometh, that Mules live longer then Horſes.

The Epithets of a Mule are theſe; pack-bearer, dirty, *Spaniſh*, rough, and bi-formed. There is an Adage or proverb called *Mulus Marianus*, and by it is ſignified a man which is apt both for to obey and to rule; it was taken from *Marius* the great *Roman* Souldier and Commander, whoſe faſhion was, when he had commanded any of his Souldiers to fetch a burden, or do any vilde ſervice, he himſelf would put his hand unto it. It ſignifieth properly a bearing back, or Colt-ſtaffe, as we ſay in *Engliſh*, whereupon poor men carry their burdens, and from thence it was tranſlated into a proverb, to ſignifie all that do obey commands. There be ſome which give another reaſon of this proverb, for they ſay, that when *Scipio* did beſiege *Numantia*, he did not only determin to look into the weapons of his Souldiers, but alſo to his Horſes, Mules, and Chariots. Then *Marius* brought forth an Horſe, nouriſhed by himſelf very delicately: Beſides the Horſe a Mule of very comely body, far excelling all other Mules both in gentleneſs and in ſtrength. Therefore ſeeing the Emperor was delighted with the Beaſts of *Marius*, and would now and then make mention of the Mule, at length it came to a common jeſt, to call a double diligent ſervant *Mulus Marianus*. The *Italians* do commonly call thoſe men Mules which are baſe born, and not by lawful marriage.

The Epithets and conditions of Mules.

Concerning the diſpoſition of Mules, it is well obſerved by *Ariſtotle*, that Mules are always tame; and if at any time they be more wilde, they abate their untameable nature by drinking of Wine, becauſe by the operation of the Wine, their heels and hard parts do reſolve and grow ſoft; by the ſame reaſon that Apes by drinking of Wine looſe their nails, and men accuſtomed to drunkenneſs fall into palſies: for there is ſuch a diſperſing and diſcuſſing nature in Wine, that it diſſolveth all nerves and hard things in the bodies of Beaſts, even as water diſſolveth hard fruits and Peaſe, and Vinegar maketh lead as ſoft as an Egge, that it may be drawn through a Ring: and ſuch is the nature of Mules, that after they have drunk Wine, they feel themſelves diſarmed, and therefore give over to reſiſt, becauſe by kicking backwards, they receive more harm then they give,

Alunnus.
The inward diſpoſition of Mules.

Pliny.

and thus the guiltineſs of their own weakneſs, maketh them gentle againſt their wills, for otherwiſe they hate mankinde, and are nothing ſo tractable as Horſes. For *Varro* ſaith, that they have ſo much confidence in their heels, that by them alone, they kill Wolves when they come among them.

Uſe of Mules in their ſeveral works.
Cardan.

Mules were wont to be uſed for plowing, and for carrying both of men and burthens; but now in moſt parts of *Europe*, Judges and great Princes ride upon them until they be old, and then they ſell them to the poor men, who turn them into the Mountains where they ſuffer them to run wilde, till their hoofs be hardned for long travails, and then they take them up again. They have been alſo accuſtomed to ploughing, according to theſe verſes;

Quantum mularum ſulcus præcedit in arvo,
Tantum is præcurrit.——

For the Mules did plough more ſpeedily, and come to the lands end more quickly then either the Ox or Horſe. And *Martiall* ſaith, that they were uſed in Carts to draw Timber, according to theſe verſes;

Vixq; datur longas Mulorum vincere mandras,
Quæq; trahi multo marmora fune vides.

They were alſo uſed in race at the games of *Olympus*, as we have already ſhewed in the ſtory of the Horſe, but that cuſtom dyed quickly, becauſe that the *Arcadians* could not endure Mules. The price of Mules was great, for *Criſpine* (ſaith *Juvenul*) gave ſix thouſand pieces of mony for a Mule, and yet he ſaith it was not well worth ſix pound; the verſes of *Juvenal* are theſe:

——*Criſpinus Mulum ſex millibus emit*
Æquantem ſane paribus ſeſtertia libris,
Ut perhibent qui de magnis majora loquuntur.

The *Cappadocians* payed to the *Perſians* every year beſides Silver and Gold, fifteen hundred Horſes, two thouſand Mules, and fifty thouſand Sheep; but the *Medians* payed twice ſo much. The dwarfiſh Mules called *Ginni* were alſo much ſet by, not for uſe, but only for delight, as dwarfs are kept in Noblemens houſes. When *Pyſiſtratus* the ſon of *Hippocrates* firſt of all affected Tyranny at *Athens*, and laboured to get the government to himſelf, as he came out of his Countrey, being drawn with a Chariot by Mules, he wounded himſelf and his Mules very grievouſly, and ſo drave them into the Market place, ſhewing his wounded body and Beaſts unto the *Athenians*, telling them that ſo he was wounded by his enemies, and that he eſcaped death very narrowly; but if it pleaſed them to grant him a gard of ſouldiers to defend his body, he would take revenge upon their and his enemies: whereunto they yeelded, and he having gotten a Band of Souldiers under that pretence, preſently took upon him the government and Soveraignty.

To conclude this ſtory of Mules, I do read in *Ælianus*, that Serpents do love to feed on the fleſh of dead Mules; and two things are very eminent in the nature of Mules, one of their underſtanding, and the other of their friendſhip. Concerning the firſt, *Plutarch* relateth this ſtory of a Mule that was accuſtomed to carry Salt, who upon a ſeaſon going through a water, fell down underneath his burden, ſo that the Salt took wet afterwards; the Beaſt perceived how by that means, his extream load melted away, and ſo became lighter and lighter; afterward the Mule grew to this cuſtom, that whenſoever he came loaded with Salt over that water, he fell down in it for the eaſing of his carriage; his Maſter perceiving his craft, on a day he loaded him with Wool, and Spunges, and ſo the Beaſt coming over the water, fell down as he was wont to do with his Salt, and coming out of the water, he felt his load to grow heavier then it was wont to do, in ſtead of leſſening, whereat the Beaſt much muſed, and therefore never afterward durſt lie down in the water, for fear of the like increaſe of his load. The other obſervation of their love and friendſhip, ariſeth from the Proverb, *Mutuum Muli ſcabunt*, that is, Mules ſcratch one another, and help one another in their extremity; from whence cometh our proverb, One good turn asketh another; and the *Latine* proverb, *Senes mutuum fricant*, old men rub one another; which did ariſe upon this occaſion: as *Adrian* the Emperour ſo paſſed a long on a day by a bath, he ſaw an old Souldier in the bath rubbing himſelf upon a Marble ſtone for want of a man to help him, whereupon in pity of his caſe he gave him maintenance for himſelf and a man: afterwards other old Souldiers ſeeing how well their fellow had ſped, went likewiſe into the bath before the Emperors eyes, and rubbed themſelves upon the Marble, thinking to get as much favour and liberty as their fellow had gotten, but the Emperor ſeeing them, and perceiving their fetches, bid them rub one another, and thereupon came that proverb. And thus much fot the natural diſcourſe of Mules, now followeth the medicinal.

The Medicines of the Mule.

Pliny.

The duſt wherein a Mule ſhall turn or rowl himſelf, being gathered up and ſpread or ſprinkled upon the body of any one who is ardently and fervently in love, will preſently aſſwage and quench
his

Ponzettus.

his inflaming deſire. A man or woman being poyſoned, and put into the belly of a Mule or Camel which is new killed, will preſently expel away the force of the venom or poyſon, and will confirm and make ſtrong their decayed ſpirits, and all the reſt of their members: For as much as the very heat of thoſe Beaſts is an Antidote or preſervative againſt poyſon.

The skin or hide of a Mule being put unto places in any ones body which are burned with fire, doth preſently heal and cure the ſame: it doth alſo heal ſores and grievous ulcers which are not come unto Impoſtumes.

Avicenna.
Albertus.
Æſculapius.
Sextus.
Avicenna.
Albertus.
Æſculapius.
Sextus.

The ſame is an excellent remedy for thoſe whoſe feet are worn or wrung together through the pinching of their ſhoos, to help themſelves withall, and for thoſe which are lame, and thoſe which are troubled with thoſe grievous ſores called Fiſtulaes. If any man ſhall take either in meat or drink the marrow of a Mule, to the weight or quantity of three golden crowns, he ſhall preſently become blockiſh and altogether unexpert of wiſdom and underſtanding, and ſhall be void of all good nutriment, and manners. The ear-laps or ear-lages of a Mule, and the ſtones of a Mulet being born and carried by any woman, are of ſuch great force and efficacy, that they will make her not to conceive. The heart of a Mule being dryed and mingled with Wine, and ſo given to a woman to drink after that ſhe is purged or cleanſed thirty times, hath the ſame force and power that the aforeſaid medicine hath for the making of a woman barren. The ſame effect againſt conception hath the bark of a white poplar tree, being beaten together with the reins of a Mule, then mingled in Wine, and afterwards drunk up. If the herb called Harts-tongue, be tied upon any part of a woman, with the ſpleen of a Mule, but as ſome have affirmed by it ſelf only, and that in the day which hath a dark night, or without any Moonſhine at all, it will make her altogether barren and not able to conceive. If the two ſtones of a Mule be bound in a piece of the skin of the ſame Beaſt and hanged upon any woman, they will make that ſhe ſhall not conceive ſo long as they ſhall be bound unto her. The left ſtone of a Weeſil being bound in the skin or hide of a Mule, and ſteeped or ſoked for a certain ſpace or time in Wine, or in any other drink, and the drink in which they are ſo ſteeped given to a woman to drink, doth ſurely make that ſhe ſhall not conceive. The ſtones of a Mulet being burned upon a barren and unfruitful tree, and put out, or quenched with the ſtale or urine of either Man or Beaſt which is gelded, being bound and tyed in the skin of a Mule, and hanged upon the arm of any woman after her menſtrual fluxes, will altogether reſiſt and hinder her conception. The right ſtone of a Mule being burned and faſtned unto the arm of a woman which is in great pain and travail, will make that ſhe ſhall never be delivered until the ſame be looſened and taken away; but if it ſhall happen that a Maid or young Virgin ſhall take this in drink after her firſt purgation or menſes, ſhe ſhall never be able to conceive, but ſhall be always barren and unfruitful.

Raſis.
Kiranides.

The matrix or womb of a female Mule taken and boiled with the fleſh of an Aſs or any other fleſh whatſoever, and ſo eaten by a woman which doth not know what it is, will cauſe her never to conceive after the ſame. The worm which is called a Gloworm, or a Globird, being taken out of the womb or matrice of a female Mule, and bound unto any part of a womans body, will make that ſhe ſhall never be to able conceive.

Pliny.
Marcellus.

The duſt or powder which proceedeth from the hoofs of a male or female Mule, being mixed or mingled with Oyl which cometh from Myrtleberries, doth very much help thoſe which are troubled with the Gout in their legs or feet. The duſt of the hoofs of a Mule being ſcorched or burned, and the Oyl of Myrtle-berries being mingled with Vinegar, and moiſt or liquid Pitch, and wrought or tempered in the form or faſhion of a plaiſter, and oppoſed or put unto the head of any one whoſe hairs are too fluent and abundant, doth very ſpeedily and effectually expel the ſame.

The liver of a Mule being burned or dryed unto duſt, and mixed with the ſame Oyl of Myrtle-berries, and ſo anointed or ſpread upon the head, is an excellent and profitable remedy for the curing of the aforeſaid enormity.

Sextus.
Marcellus.

The duſt or powder of the hoofs of a female Mule is very wholeſome and medicinable for the healing and curing of all griefs and pains which do happen or come unto a mans yard, being ſprinkled thereupon. The hoof of a Mule being born by a woman which is with childe, doth hinder her conception. The filth or uncleanneſs which is in the ears of a Mule, being bound in the skin or hide of a little or young Hart, and bound or hanged upon the arm of a woman after her purgation, doth cauſe that ſhe may not conceive. The ſame being in like manner mingled or mixed with Oyl which is made of Beavers-ſtones, doth make any woman to whom it is given to drink, altogether barren. The dirt or dung of a Mule being mixed with a ſyrup made of Hony, Vinegar, and Water, and given to any one to drink that is troubled with the heart-ſwelling, will very ſpeedily and effectually cure the pain thereof.

Hippocrates.
Raſis.

The dung of a Mule being burned or dryed and beaten ſmall, and afterwards ſifted, or ſeirced and waſhed or ſteeped in Wine, and given to any woman to drink, whoſe menſtrual fluxes come forth before their time, will in very ſhort ſpace cauſe the ſame to ſtay. The ſtale or urine of a male or female Mule being mingled with their dirt or dung, is very good and medicinable for thoſe to uſe which are troubled with corns and hard bunches of fleſh which grow in their feet. *Aſſa fœtida* being mingled with the urine of a Mule to the quantity of a bean, and drunk, will altogether be an impediment and hinderance to the conception of any woman. The ſtale or urine of a Mule being taken to the quantity of eight pounds, with two pounds of the ſcum or refuge of ſilver, and a pound of old and moſt clear Oyl; all theſe being beaten or pounded together until they come to the thick-

neſs

Aegineta.

neſs of the fat or ſweat which falleth from mens bodies and boiled until they come unto ſo liquid and thin a juyce, that they will ſpeedily and effectually cure and help thoſe which are troubled with the Gout or ſwelling in the joynts.

Raſis. *Marcellus.*

If a woman ſhall take the ſweat which proceedeth from a Horſe, and anoint it upon a Woollen cloth, and ſo apply it as a plaiſter or ſuppoſitory unto her ſecret parts, it will make her altogether barren. There is an excellent remedy for thoſe which are purſie or ſhort-winded, which cometh alſo by the Mule: which is this; To take or gather the froath or fome of a Mule, and to put it into a cup or goblet, and give it in warm water, for a certain ſpace or time to be drunk, either to the man or woman which is troubled with this enormity, and the party which do ſo uſe it, ſhall in ſhort ſpace have remedy; but the Mule will without any lingring of time, or conſuming of time in pain and ſorrow die.

Pliny. *Marcellus.*

The milt of a male or female Mule, being drunk in a potion or juyce made of Hony, Water, and Vinegar, to the value or quantity of three cruces or cups full, is commended for an excellent cure and medicine, for thoſe which are troubled and grieved with that peſtiferous and deadly diſeaſe called the Falling-ſickneſs, otherwiſe Saint *Johns* Evil. There is an excellent remedy for thoſe which are troubled in the voiding of their water, which is this; To take the Ring-worms or Tetters which do grow upon both the legs of a Mule above their knees, and which do ſtick thereupon in the manner of a dryed thick skin, and to burn or parch them, and afterwards to put or place them upon him which is troubled with the Strangury, or cannot void his water but by drops-meal, ſo that there be great care had to cover cloſe with cloven or clefted cloaths, or garments, the ſuffumigation thereof, leſt that the ſmell or fume do fade, and void away, and this being ſo uſed will be very effectual for the curing and driving away of the aforeſaid diſeaſe.

Trallianus.

The hairs of a Mule and an Aſs being mingled together and dryed, and put into ſome certain perfume, and ſo given to any one to drink which is troubled with the Falling-ſickneſs, will preſently expel and drive it quite away. In the place or part of mans body wherein a male or female Mule ſhall bite, *Ponzettus* affirmeth, there will preſently ariſe, and grow ſmall puſhes, or little bliſters which are always full of red and pale humors, and filthy corruption, which can almoſt be healed and cured by no ſalve, potion, or medicine, by any means applyed thereunto. There are ſome alſo which do ſuppoſe the biting of Mules to be poyſon, for truly there doth not only follow thoſe aforeſaid puſhes and biles, but alſo an extream and almoſt indurable inflammation and burning, through all the parts of the body, which doth greatly diſtemperate and vex the ſame.

But it is affirmed by others, that the biting of Mules is to be cured after the ſame manner as the biting of a Cat, which is thus: Firſt, to waſh and clarifie the wound or bitings where the corruption is with Vinegar mingled with Oyl of Roſes, and then to take Peny-royal, or the herb called Neppe, and boil it, and ſtroke or rub the wound very ſoftly with it, and it will in time wholly cure it. And thus much ſhall ſuffice at this time concerning the cures and medicines of Mules.

Of the *Neades*, *Neides*, or *Naides*.

HEraclides, *Cælius*, *Volaterranus*, and *Euphorion*, do all write that once the Iſle of *Samos* was a Deſert place, and that there were in it certain Beaſts called *Neades*, whoſe voyce was ſo terrible that they ſhook the earth therewith, and from thoſe ſtrange and great voyces came the vulgar *Greek* proverb, *Meizoon mia toon Neadoon*, *maius una Neadum*. That is, One of the Neades was a great wonder, for it was uſed in oſtentation, to ſhew that there was nothing in the whole world comparable to their vaſt and huge quantity. Of the parts of theſe Beaſts there is no memory but only in *Suidas* and *Ælianus*, who affirm, that their bones were to be ſeen in their days. And this title I thought good to inſert into this Hiſtory, leaving the Reader to conſider, whether he will take them for Elephants, or for any other greater Beaſt; for my opinion if it be deſired, I think them rather (if there ever were any ſuch) that they were Elephants of greater ſtature then ever ſince were ſeen, and not any generation of Beaſts now loſt and utterly periſhed.

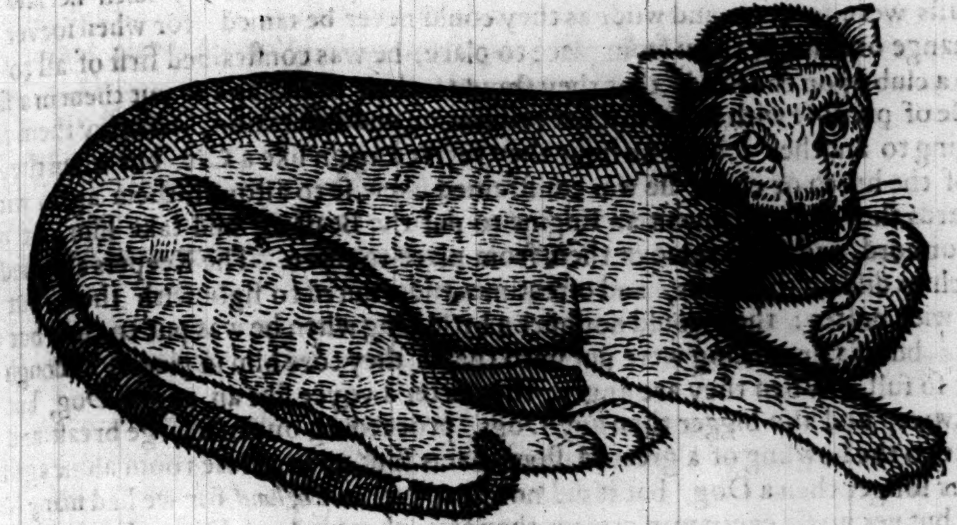
Of the OUNCE, the deſcription whereof was taken by Doctor *Cay* in *England*.

The names of this Beaſt.

THere is in *Italy* a Beaſt called *Alphez*, which many in *Italy*, *France*, and *Germany*, call *Leunza*, and ſome *Unzia*, from whence *Albertus*, and *Iſidorus* make the *Latine* word *Uncia*, and I take it to be the ſame Beaſt which is called *Lencurum*, and for the deſcription of it, I can follow no better Author then Doctor *Cay*, who deſcribeth it in this faſhion:

The deſcription of D. *Cay*.

The Ounce (ſaith he) is a moſt cruel Beaſt, of the quantity of a village or maſtiffe Dog, having his face and ears like to a Lions, his body, tail, feet, and nails like a Cats, of a very terrible Aſpect, his teeth ſo ſtrong and ſharp, that he can even cut Wood in ſunder with them: he hath alſo in his nails ſo great ſtrength, that he only fighteth with them, and uſeth them for his greateſt defence: The colour of the upper parts of his body being like whitiſh Oak, the lower being of the colour of aſhes, being every where mixed with a black and frequent ſpot, but the tail more black then the reſt of his body, and as it were obſcured with a greater ſpot then the reſidue. His ears within are pale without any blackneſs, without black, without any paleneſs, if you do but take away one dark and yellow ſpot in the midſt thereof, which is made of a double skin riſing, meeting in the top of the ear, that is to ſay, that which ariſeth from the outward part of the jaw on the one ſide, and cometh from the upper part of the head on the other ſide, and the ſame may be eaſily ſeen and ſeparated in the head being dryed.



The reſt *of* the head is ſpotted all over with a moſt frequent and black ſpot (as the reſt of the body) *except* in that part which is betwixt the noſe and the eyes, wherein there are none, unleſs only two, and they very ſmall: even as all the reſt are leſſer then the reſt, in the extream and loweſt parts: the ſpots which are in the upper parts of the thighs, and in the tail, are blacker and more ſingular, but framed in the ſides with ſuch an order, as if all the ſpots ſhould ſeem to be made of four. There is no order in the ſpots, except in the upper lip, where there are five rows or orders.

In the firſt and uppermoſt two which are ſevered; in the ſecond, ſix, being joyned in that manner, as if they ſhould ſeem to be in one line: Theſe two orders are free, and not mingled amongſt themſelves. In the the third order there are eight joyned together, but with the fourth where it endeth, they are mixed together. The fourth and fifth in their beginning (which they have to the noſe) being ſeparated with a very little difference, do forthwith joyn themſelves, and run together through all the upper lip, and do not make a ſpot through all the ſame, but a broad line. In the Beaſt being dead the ſpots do ſo ſtand, (as I ſuppoſe) for the contraction of the skin. In the Beaſt being alive, thoſe ſpots do ſeem ſeparated every one in their own orders. In the very middle between the lower lip, although they do keep the quantity, do not obſerve the order. The noſe is blackiſh, a line being ſoftly led through the length, and only through the top of the outſide thereof. The eyes are gray, the former teeth are only ſix, not very unlike to mens teeth, except thoſe which are, placed in the middle are leſſer, and they in the uttermoſt part are greater, as alſo higher then thoſe which are low.

In this Beaſt the teeth are both great, ſharp, and long, being joyned to the reſt in the lower jaw, and in the upper ſevered with ſo great ſpace, that the lower teeth may be received therein. Theſe when the Beaſt liveth are covered with his lips, but when he is dead they are otherwiſe, his lips being through drineſs ſhrunk together. His fore-teeth are very big, and as long as two *Roman* fingers, for at the very root thereof it cannot be comprehended in leſs then two *Roman* fingers and a half compaſs. In his tooth there is a certain ſmall hollowneſs through all the length thereof, which notwithſtanding doth not appear except the tooth be broken. The lower jaw is very hard and ſtiffe having three teeth unequal in quantity, as the upper four. Between the great tooth and the firſt cheek tooth of the under jaw, there is a void ſpace to the quantity of one finger, from which the firſt is preſently placed, leſſer then the other two: to this there is another greater cloſe adjoyning: and after this there is alſo a third greater then the ſecond. In the upper jaw in that middle ſpace (which I ſaid was of one *Roman* finger) between the great tooth and the firſt cheek-tooth, there is a very little tooth, and without any form, coming ſo ſmally out of the jaw, that there is no lower tooth which may anſwer to the ſame. After that, in the ſpace of half a finger there is a ſecond, to which there is joyn'd a third, and after this a fourth, between themſelves the upper and the lower cheek-teeth, and ſo are joyned together as they agree in the manner of a comb; the two firſt teeth in the lower jaw, and the ſecond and third in the upper jaw are of the ſame figure, as the compaſs of the tops of the Crowns of the Kings of *England* and *France*. The third is of the ſame figure in the lower jaw, and the fourth of the upper jaw, except that the interior ſide of both the

gums

The meat and nature.

gums which is nearer to the throat, by nature is taken away. There was no other teeth joyned to theſe in both the jaws. But I do not know whether there be any more teeth in the gum beyond the reach of ones finger, in the fartheſt row or behinde the teeth. But this I know, that to all appearance there was none remaining, and it may be that his lips were cut or ſlit down beyond nature to ſhew his teeth. It liveth of fleſh, and the female is more cruel then the male, though leſſer, and one of either ſex was brought out of *Mauritania* into *England* in a Ship, for they are bred in *Lybia*. If they have any appointed time of copulation, it is near the month of *June*, for in that month the male covereth the female. We have ſhewed already that Lions may be tamed, and that alſo hath been manifeſt in *London*, both in the Tower and in the City, for there the Lions did play with their Keepers, and kiſs them without harm, (as Doctor *Cay* ſaith he ſaw them do) but theſe Beaſts were ſo fierce and wilde as they could never be tamed, for when ſoever their Keeper ſhould change or remove them from place to place, he was conſtrained firſt of all to ſtrike them ſo hard with a club upon the head, that they ſhould lie half dead, and ſo put them in a ſack or wooden cheſt made of purpoſe with holes in it for reſpiration and expiration, to carry them to and fro from one lodging to another : after an hour they revived again like a Cat, but when they were to be taken out of the hutch or cheſt, he was conſtrained likewiſe to aſtoniſh them again with his club; but afterwards they grew to invent an Engine to put the Beaſt in, and take him out of the hutch with a rope or cord, and ſo do remove them from place to place. The Keepers affirmed, that they did ſeem much to diſdain the Lions, and oftentimes endevoured to fight with them, but they were kept aſunder with grates : they would not hurt a little Dog when he was put to them but when they were hungry; but if a great Dog were put unto them, they tore him in pieces, although their bellies were never ſo full. When they are angry, they utter a voyce like an angry Dog, but they double the (*Arr*) twice, and alſo bigger then any Dogs, proceeding out of a large breaſt and wide arteries, much like to the howling of a great Maſtive, that is ſhut up in a cloſe room alone againſt his will. Some ſay it is longer then a Dog, but it did not ſo appear in *England*, for we had many Maſtive Dogs as long as it, but yet was it every way greater then any other kinde of Dogs. It is but a vain report, that ſome have ſaid, when a Man or Beaſt is bitten with an Ounce, preſently Mice flock unto him, and poyſon him with their urine.

For it was ſeen in *England*, that two of the Keepers were wounded and ſhrewdly bitten by one of the Ounces, and there followed them no other harm then that which followeth the biting of an ordinary Dog, or like a ſmall inciſion with a knife. He never fighteth but at the head, and that treacherouſly, if he perceive his adverſary to be too ſtrong or too great for him, and that by counterfeiting quietneſs, benevolence and peace, as if he meant no harm : for ſo he ſerved a great Maſtive Dog in *England*, at the firſt ſight he ſeemed to applaud his comming, looking cheerfully upon him, and wagging his tail, preſently he fell down on his belly, as it were to invite the Dog to come near him by his ſubmiſſion; laſtly, he got cloſe unto him, creeping as though he would play with him, putting out one of his feet, as Cats do when they play, wherewithal the great Dog grew ſecure, and began nothing to miſtruſt the Beaſt, at length when the Ounce ſaw his opportunity, he ſuddenly leaped upon his neck, and took him by the throat, and pulled it out, after he had killed him, with his nails he opened the Dogs breaſt, and taking out his heart, did eat it before all the people in moſt cruel manner; thus far Doctor *Cay* ſpeaketh of the Ounce, and beſide him no other Author that I know.

The gall of this Beaſt is deadly poyſon, it hateth all creatures, and deſtroyeth them, eſpecially men; and therefore it may well be ſaid to be poſſeſſed with ſome evill ſpirit. It loveth none but his own kinde. And thus much for the Ounce.

Of the *ORYX*.

THis Beaſt in *Pliny* and *Oppianus* is called *Orynx* and *Oryx*, and my conjecture is, that his name is derived from *Oryſſein* which ſignifieth to dig. Saint *Jerom* and the Septuagints for *Theo*, Deut. 14. and Iſa. 51. tranſlate Oryx : but *David Kimhi*, and the better learned men interpret it a wilde Ox. But the *Hebrew Diſchon* may in my opinion be ſo tranſlated, yet herein I refer it to the learned Reader.

It is certain, that it is of the kinde of wilde Goats by the deſcription of it, differing in nothing but this, that the hair groweth averſe, not like other Beaſts, falling backward to his hinder parts, but forward toward his head, and ſo alſo it is affirmed of the *Æthiopian* Bull, which ſome ſay is the Rhinocerot. They are bred both in *Lybia* and *Egypt*, and either of both Countries yeeldeth teſtimony of their rare and proper qualities. In quantity it reſembleth a Roe, having a beard under his chin. His colour white or pale like milk, his mouth black, and ſome ſpots upon his cheeks; his back-bone reaching to his head, being double, broad, and fat; his horns ſtanding upright, black, and ſo ſharp, that they cannot be blunted againſt braſs or iron, but pierce through it readily.

Ariſtotle and *Pliny* were of opinion, that this Beaſt was *Biſulcus* and *Unicornis*, that is, cloven-footed, and with one horn : The original of their opinion, came from the wilde-one-horned-goat, whereof *Schnebergerus* a late Writer writeth thus : *Certum eſt minimeque dubium in Carpatho monte, verſus Ruſſiam Tranſylvaniamq; reperiri feras ſimiles omnino rupicapris, excepto quod unicum cornu ex media fronte enaſcitur, nigrum, dorſo inflexum, ſimile omnino rupicaprarum cornibus*, that is to ſay; It is without

out all controverſie, that there are wilde Beaſts in the Mountain *Carpathus*, towards *Ruſſia* and *Tranſylvania*, very like to wilde Goats, except that they have but one horn growing out of the middle of their heads, which is black and bending backward like the horns of wilde Goats. But the true Oryx is deſcribed before out of *Oppianus*, and it differeth from that of *Pliny*, both in ſtature and horns. *Ælianus* ſaith, that the Oryx hath four horns, but he ſpeaketh of the *Indian* Oryx, whereof there are ſome yearly preſented to their King, and it may be both there and elſewhere, diverſity of regions do breed diverſity of ſtature, colour, hair, and horns. *Simeon Sethi* affirmeth of the Musk-cat, that it hath one horn, and it is not unlikely that he hath ſeen ſuch an one, and that the Oryx may be of that kinde.

But concerning their horns, it is related by *Herodotus*, *Pollux*, and *Laur. Valla*, that there were made inſtruments of muſick out of them, ſuch as are Citherns or Lutes, upon whoſe bellies the Muſitians played their Muſick, by ſtriking them with their hands; and that thoſe Beaſts were as great as Oxen; and all this may be true, notwithſtanding we have ſhewed already, that they are as big as Roes, for *Pliny* ſpeaking that by relation, or by ſight, it is likely that he had ſeen a young one.

There be alſo Sea-beaſts called *Oryges*, and *Orcæ*; and there is in *Egypt* an Oryx, which at the riſing of *Canis Syrius*, or the little Dog is perpetually ſorrowful; and this cauſe the *Lybians* to mock the *Egyptians* for that they fable, the ſame day that the little Dog-ſtar riſeth, their Oryx ſpeaketh. But on the contrary themſelves acknowledge, that as often as the ſaid Star ariſeth with the Sun, all their Goats turn to the Eaſt, and look upon it; and this obſervation of the Goats, is as certain as any rule of the Aſtronomers. The *Lybians* affirm more, that that they do preſage great ſtore of rain, and change of weather.

Plutarch.
Ælianus.

The *Egyptians* alſo ſay, that when the Moon cometh near to the Eaſt, they look very intentively upon her, as upon their ſoveraign Goddeſs, and make a great noiſe, and yet they ſay they do it not for her love, but for her hate, which appeareth by knocking their legs againſt the ground, and faſtening their eyes upon the earth, like them which are angry at the Moons appearance: And the ſelf ſame thing they do at the riſing of the Sun.

For which cauſe the ancient Kings had an obſerver, or one to tell them the time of the day, ſitting upon one of theſe Beaſts, whereby very accurately they perceived the Sun riſing; and this they did by turning their tail againſt it, and emptying their bellies; for which cauſe by an Oryx the *Egyptians* diſcipher an impure or godleſs wretch: for ſeeing that all creatures are nouriſhed by the Sun and Moon, and therefore ought to rejoyce at their appearing, only this filthy wretch diſdaineth and ſcorneth them.

The reaſon why they rejoyce at the little Dog-ſtar, is, becauſe their bodies do perceive an evident alteration of the time of the year, that cold weather and rain are over-paſſed, and that the vapors of the warm Sun are now deſcending upon the earth, to clothe it with all manner of green and pleaſant herbs and flowers.

There is another kinde of Oryx which according to *Columella*, was wont to be impaled among Deer and Harts, the fleſh whereof was eaten, and uſed for the commodity of his Maſter: This was impatient of cold. It grew till it was four years old, and afterwards through age decreaſed, and loſt all natural vigor.

But to return to the Oryx intended, from which we have digreſſed; their horns whereof we late ſpake, are not only ſtrong and ſharp like the horn of the Unicorn, and the Rhinocerot, but alſo ſolid, and not hollow like the horns of Harts. The courage and inward diſpoſition of this Beaſt, is both fearful, cruel, and valiant; I mean fearful to Men and Beaſts, but fearleſs in it ſelf: For ſaith my Author; *Neq; enim Canis latratum timet, neq; apri efferveſcentem feritatem, neq; tauri mugitum refugit, neq; Pantherarum triſtem vocem, neq; ipſius Leonis vehementem rugitum horret, neq; item hominum robore movetur, ac ſæpe robuſtum venatorem occidit*: That is to ſay; He feareth not the barking of the Dog, nor the foaming wrath of the wilde Boar; he flyeth not the terrible voyce of the Bull, nor yet the mournful cry of the Panthers; no, nor the vehement roaring of the Lion himſelf; and to conclude, he is not moved for all the ſtrength of man, but many times killeth the valianteſt hunter that purſueth him.

When he ſeeth a Boar, a Lion, or a Bear, preſently he bendeth his horns down to the earth, whereby he conformeth and eſtabliſheth his head to receive the brunt, ſtanding in that manner until the aſſault be made: at which time he eaſily killeth his adverſary, for by bending down his head, and ſetting his horns to receive the Beaſt, he behaveth himſelf as skilfully as the Hunter, that receiveth a Lion upon his ſpear. For his horns do eaſily run into the breaſts of any wilde Beaſt, and ſo piercing them, cauſeth the bloud to iſſue, whereat the Beaſt being moved, forgetteth his combate and falleth to licking up his own bloud, and ſo he is eaſily overthrown. When the fight is once begun, there is none of both that may run away, but ſtandeth it out until one or both of them be ſlain to the ground, and ſo their dead bodies are found by wilde and ſavage men. They fight with all, and kill one another, alſo they are annoyed with Linces, I mean the greater Linces: of the cruelty of this Beaſt *Martiall* made this diſtichon:

Matutinarum non ultima præda ferarum
Sævum Oryx, conſtat qui mihi morte canum.

Oppianus.
Pliny.
Albertus.

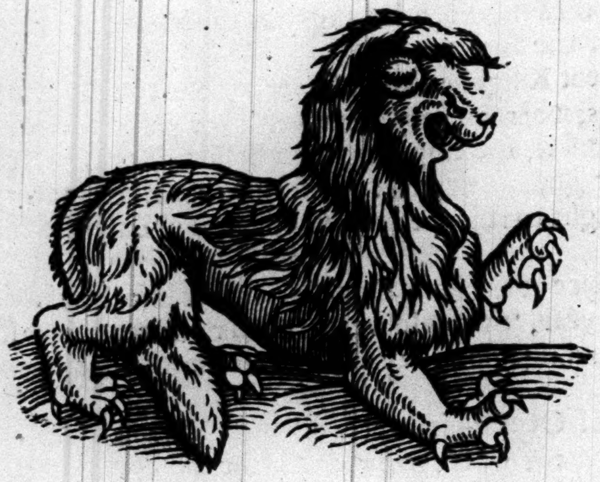
It is reported of this Beaſt, that it liveth in perpetual thirſt, never drinking by reaſon that there is no water in thoſe places where it is bred, and that there is in it a certain bladder of liquor, whereof whoſoever taſteth, ſhall never need to drink. This Beaſt liveth in the Wilderneſs, and notwithſtanding his magnanimous and unreſiſtible ſtrength, wrath, and cruelty, yet is he eaſily taken by ſnares and devices of men; for God which hath armed them to take Elephants and tame Lions, hath likewiſe indued them with knowledge from above, to tame and deſtroy all other noiſome Beaſts.

Concerning the picture of this Beaſt, and the lively viſage of his exterior or outward parts, I cannot expreſs it, becauſe neither my own ſight, nor the writings of any credible Author, doth give me ſufficient direction to deliver the ſhape thereof unto the world, and ſucceeding Ages upon my credit: and therefore the Reader muſt pardon me herein. I do not alſo read of the uſe of the fleſh, or any other parts of this Beaſt, but only of the horns, as is already expreſſed, whereunto I may adde the relation of *Strabo*, who affirmeth the *Æthiopian Silli*, do uſe the horns of theſe Beaſts in wars inſtead of ſwords and ſpears: for incredible is the hardneſs and ſharpneſs of them, which cauſed *Juvenal* to write thus:

> *Et Getulus Oryx hebeti lautiſſima ferro*
> *Caditur.*———

For although of the own length they are not able to match a pike, yet are they fit to be put upon the tops of pikes, as well as any other artificial thing made of ſteel or iron; and thus I will conclude the ſtory of this Beaſt.

The *SCYTHIAN WOLF.*



Of the *OTTER.*

Of the names and the reaſons thereof.

THere is no doubt but this Beaſt is of the kinde of Beavers, becauſe it liveth both on the water and on the land, and the outward form of the parts beareth a ſimilitude of that Beaſt. The *Italians* do vulgarly call this Beaſt *Lodra*, and the *Latines* beſides *Lutra*, *Fluviatilis Canicula*, a Dog of the Waters; and ſome call them Cats of the Waters; the *Italians* beſides *Lodra*, call it alſo *Lodria*, and *Loutra*; the *French*, *Une Loutre*, or *Ung Loutre*; the *Savoyans*, *Une Leure*; the *Spaniards*, *Nutria*; and the *Illyrians*, *Widra*; the *Gracians*, *Lytra*, becauſe it ſheareth aſunder the roots of the trees in the banks of the Rivers. Some of the *Gracians* call it *Enhydris*, although properly that be a Snake living in the waters, called by *Theodorus*, and *Hermolaus*, *Lutris*. *Albertus* calleth it *Luter*, and *Anadrz* for *Enhydris*. Alſo *Boatus* by *Silvaticus*; and the *Gracians* call filthy and thick waters *Lutrai*; for which cauſe, when their Noble ancient Women went to bathe themſelves in water, they were bound about with skins called *Oan Loutrida*, that is, a Sheeps skin uſed to the water. The *French* men call the dung of an Otter, *Eſpranite de loutres*; the ſteps of an Otter, *Leiſe Marches*; the whelps of an Otter, *Cheaux*, by which word they call alſo the whelps of Wolves, Foxes, and Badgers.

Stephanus.
Pliny.

The places of their abode.

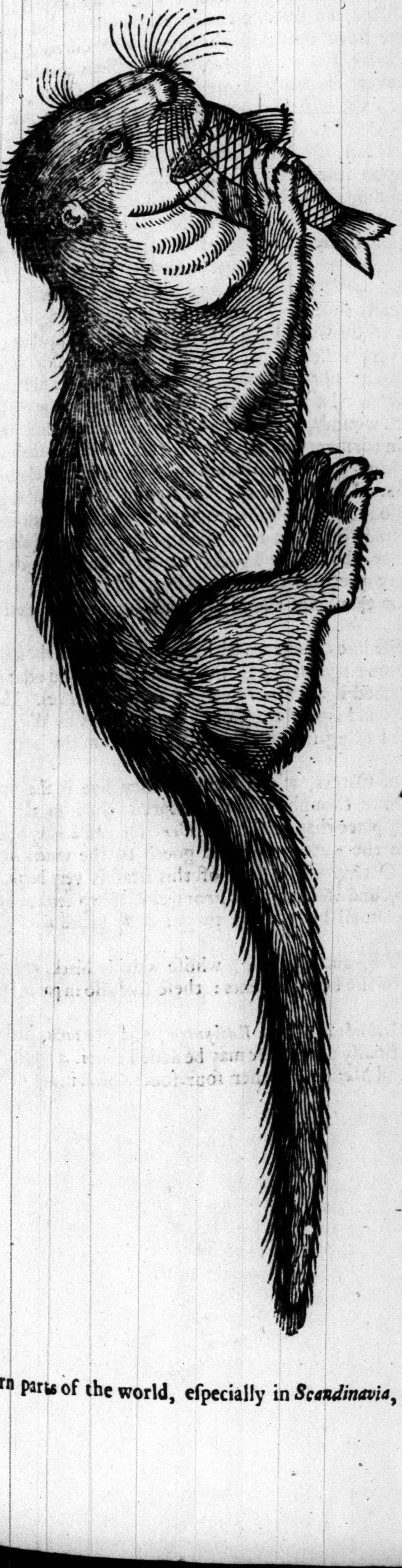
Although they be a kinde of Beaver, as we have ſaid already, yet they never go into the Sea, and they abound almoſt in all Nations, where there are Rivers or Fiſh-pools, as namely in *Italy*, *France*, *Germany*, *Helvetia*, *England*, and *Scandinavia*. Likewiſe in all *Sarmatia*, in the Bay of *Boryſthenes*. They are moſt plentiful in *Italy*, where the River *Padus* is joyned to the Sea. Alſo they abound in *Naples*. Their outward form is moſt like unto a Beaver, ſaving in their tail, for the tail of a Beaver is fiſh, but the tail of an Otter is fleſh. They are leſs then Beavers, ſome compare them unto a Cat, and ſome unto a Fox; but I cannot conſent unto the Fox. They are bigger then a Cat and longer, but leſſer then a Fox, and therefore in my opinion they are well called Dogs of the water. They exceed in length, for in *Swetia*, and all the Northern Rivers they are three times ſo long as a Beaver. They have a rough skin; and the hair of it very ſoft and neat, like the hair of a Beaver, but different in this, that it is ſhorter and unequal, alſo of colour like a Cheſ-nut, or browniſh, but the Beaver

Hermolaus.

Olaus.

The ſeveral parts.

vers is white or aſh-colour. It hath very ſharp teeth, and is a very biting Beaſt, likewiſe ſhort legs, and his feet and tail like a Dogs, which cauſed *Bellonius* to write, that if his tail were off, he were in all parts like a Beaver, differing in nothing but his habitation. For the Beaver goeth both to the Salt waters, and to the freſh, but the Otter never to the ſalt.



The framing of their den.

His prey and food.

Although it live in the waters, yet it doth not ſuck in water, but air; that is, it doth not breath like fiſhes through the benefit of water, and therefore it maketh his dens near the water, wherein alſo they are wont to bring forth their young ones: They make their dens ſo artificially, even as the Beaver, with bows, and ſprigs, or ſticks, couching together in excellent order, wherein he ſitteth to keep him from wetneſs. It hunteth fiſhes, and although it breatheth like another four-footed Beaſt, yet it will remain a great while under the water without reſpiration; for the greedineſs of fiſhes it runneth many times into nets, which are ſet by men in waters to take fiſh, whereinto being entered, it is ſuffocated for want of breath, before it can ſhear aſunder the nets and make way for himſelf to come out.

Agricola.

Albertus.

For in the hunting of fiſh it muſt often put his noſe above the water to take breath: it is of a wonderful ſwiftneſs and nimbleneſs, in taking his prey, and filleth his den ſo full of fiſhes, that he corrupteth the air, or men that take him in his den: and likewiſe infecteth himſelf with a peſtilent and noiſome ſavour, whereupon as the *Latines* ſay of a ſtinking fellow, He ſmels like a Goat; ſo the *Germans* ſay of the ſame, He ſmels like an Otter. In the Winter time he comes out of the caves and waters to hunt upon the land, where finding no other food, he eateth fruits, and the bark of trees. *Bellonius* writeth thus of him, he keepeth in pools and quiet aters & rivers, terrifying the flocks of fiſh, and driving them to the bank-ſides in great number, to the holes and creeks of the earth, where he taketh them more copiouſly, and more eaſie: but if he want prey in the waters, then doth he leap upon the land, and eat upon green herbs: he will ſwim two miles together againſt the ſtream, putting himſelf to great labour in his hunger, that ſo when his belly is full, the current of the ſtream may carry him down again to his deſigned lodging.

The females nouriſh many whelps together at their udders, until they be almoſt as big as themſelves, for whom the hunters ſearch, as for the dams among the leaves and boughs, which the over-flowings of waters in the Winter time, have gathered together, and laid on heaps. It is a ſharp biting Beaſt, hurtful both to men and dogs, never ceaſing or looſing hold after he hath laid his mouth upon them, until he make the bones to crack betwixt his teeth, whereupon it was well ſaid by *Olaus Mag. Lutræ mordaces quadrato ore.* Otters are moſt accompliſhed biters.

It is a very crafty and ſubtil Beaſt, yet it is ſometimes tamed, and uſed in the Northern parts of the world, eſpecially in *Scandinavia*, to drive the fiſhes into the Fiſher-mens nets:

for ſo great is the ſagacity and ſenſe of ſmelling in this Beaſt, that he can directly winde the fiſhes in the waters a mile or two off, and therefore the Fiſhers make great advantage of them, yet do they forbear his uſe becauſe he devoureth more then needeth, for he is never ſo tamed, that he forgetteth his old ravening; being tamed, on the land he is very full of ſport and game. I marvail how it came into the Writers heads to affirm, that the Beaver conſtraineth the Otter in the Winter time, to trouble the water about her tail, to the intent it may not frieze, which opinion we have confuted already in the diſcourſe of the Beaver, for herein I agree with *Albertus. Fiber fortior eſt lutra, & acutiſſimis dentibus, quapropter eam vel expellit, vel occidit.* The Beaver is much ſtronger then the Otter, having alſo moſt ſharp teeth, and therefore either expelleth her out of the waters, becauſe they live both upon one kinde of food, or elſe deſtroys her: wherefore it is unreaſonable to believe that he preſerveth her to keep his tail from friezing. The fleſh of this Beaſt is both cold and filthy, becauſe it feedeth upon ſtinking fiſh, and therefore not fit to be eaten. *Tragus* writeth, that this notwithſtanding is dreſſed to be eaten in many places of *Germany*, and I hear that the *Carthuſian* Fryers or Monks (whether you will) which are forbidden to touch all manner of fleſh, of other four-footed Beaſts, yet they are not prohibited the eating of Otters. Theſe Otters are hunted with ſpecial Dogs, called Otter-hounds, and alſo with ſpecial inſtruments called Otter-ſpeares, having exceeding ſharp points: for they are hardly taken, and Beaſts do not willingly ſet upon them, ſpecially in the waters: when they feel themſelves to be wounded with the ſpear, then they come to land, where they fight with the Dogs very ireſully, and except they be firſt wounded, they forſake not the waters: for they are not ignorant how ſafe a refuge the waters are unto them, and how unequal a combate they ſhall ſuſtain with Men and Dogs upon the land, yet becauſe the cold water annoyeth their green wounds, therefore they ſpin out their lives to the length of the thread, chuſing rather to die in torments among Dogs, then to die in the waters. There is a kinde of *Aſſa* called *Benioyn*; a ſtrong herb which being hung in a linnen cloth near fiſh-ponds, driveth away all Otters and Bevers. The hair of the skin is moſt ſoft, neither doth it leeſe his beauty by age; for which cauſe as alſo for that no rain can hurt it, when it is well dreſſed it is of great price and eſtimation, and is ſold for ſeven or eight ſhillings: thereof alſo they make fringes in hems of garments, and face about the collars of men and womens garments, and the skin of the Otter is far more pretious then the skin of the Beaver; and for this cauſe the ***Swetian*** Merchants do tranſport many into ***Muſcovia*** and ***Tartaria*** for clokes and other garments.

Taking and hunting of Otters.

Albertus.

Uſe of their skins.

Thereof alſo in *Germany* they make caps, or elſe line other caps with them, and alſo make ſtocking-ſoles; affirming that they be good and wholeſome againſt the Palſie, the Megrim, and other pains of the head. The bloud of an Otter is preſcribed againſt the ſwelling of the Nerves. The Liver dryed in an Oven againſt the Bloudy-flix, and againſt the Colick being drunk in Wine. The ſtones are alſo preſcribed to be given againſt the Falling-ſickneſs, and all pains in the belly. And thus much for the Otter.

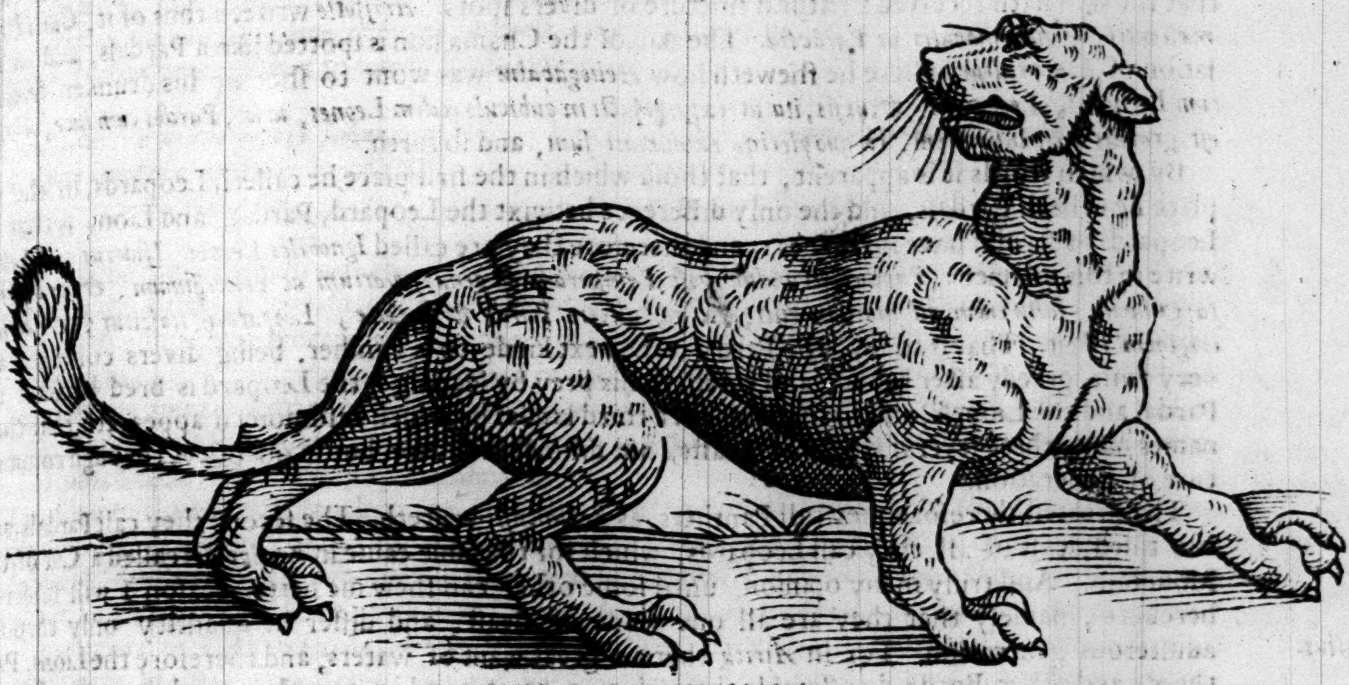
There be certain beaſts which are kindes of Otters, which becauſe they live in the waters, and yet being unknown to us in ***England***, I have thought good to expreſs them in this place by their *Greek* and ***Latine*** names. In the firſt place that which the *Græcians* call ***Latax***, broader and thicker then an Otter, and yet liveth in the waters, or elſe goeth to the waters for his food, yet breatheth air and not water like Otters. The hair of this Beaſt is very harſh, betwixt the ſimilitude of a Sea-calf and a Hart, and it hath alſo ſtrong and ſharp teeth, wherewithall in the night ſeaſon they ſhear aſunder ſmall boughs and twigs: It is called alſo *Faſtoz*, ***Lamyakyz***, and ***Noertza***.

There is another called ***Satyrium***, and ***Faſſuron***, and ***Chebalus***, whoſe skin is black, and very pretious, and very much uſed for the edging of the beſt garments: theſe live alſo in ponds, lakes, and ſtill waters.

There is a third kinde called ***Satherium***, ***Kacheobeon***, and ***Kacbyneen***, and ***Martarus***, having a white throat, and being as big as a Cat; and finally unto theſe may be added *Porcos*, a four-footed beaſt living in the waters in the River *Iſther*: And ***Mæſolus*** another four-footed beaſt living in ſome Rivers of ***India***, being as big as as a Calf.

of

Of the Panther, commonly called a Pardal, a Leopard, and a Libbard.



The ſeveral names of Panthers.

THere have been ſo many names deviſed for this one beaſt, that it is grown a difficult thing, either to make a good reconciliation of the Authors which are wed to their ſeveral opinions, or elſe to define it perfectly, and make of him a good methodical Hiſtory: yet ſeeing the greateſt variance hath ariſen from words, and that which was deviſed at the firſt for the better explication and deſcription of it hath turned to the obſcuration and ſhadowing of the truth, I truſt it ſhall be a good labour to collect out of every Writer that which is moſt probable concerning this Beaſt, and in the end to expreſs the beſt definition thereof we can learn out of all.

Firſt of all therefore for as much as all the queſtion hath ariſen from the *Greek* and *Latine* names, it is moſt requiſite to expreſs them, and ſhew how the different conſtruction began. The *Grecians* do indifferently call *Pordalis*, *Pardalis*, and Panther, the *Latines*, *Panthera*, *Pardalis*, *Pardus*, and *Leopardus*, and theſe names are thus diſtinguiſhed by the learned. *Pordalis* they ſay ſignifieth the male, and *Pardalis* the female, and alſo *Panthera* among the *Latines* for the female, and *Pardus* for the male, and theſe are underſtood of a ſimple kinde without commixture of generation. *Leopardus* the Leopard or Libbard, is a word deviſed by the later writers, compounded of *Leo* and *Pardus*, upon opinion that this Beaſt is generated betwixt a Pardal and a Lion, and ſo indeed it ought properly to be taken, if there be any ſuch. *Pliny* is of opinion, that *Pardus* differeth from *Panthera* in nothing but in ſex, and other ſay, that betwixt the Lions and the Pardals there is ſuch a confuſed mixed generation as is betwixt Aſſes and Mares, or Stallions and Aſſes: as for example, when the Lion covereth the Pardal, then is the Whelp called *Leopardus*, a Leopard or Libbard, but when the Pardal covereth the Lioneſs, then is it called *Panthera* a Panther.

In this controverſie the *Hebrew* and *Arabian* names which are generally indifferently tranſlated Panthers or Libbards, do take up the ſtrife and almoſt end the controverſie, for *Namer* in *Hebrew*, and *Alph'c* or *Alſhed* in *Arabick*, are ſo tranſlated both in holy Scripture, and alſo in *Avicen*, as may appear by theſe places following, Eſa. 11. *Habitabit Lupus cum agno, & (Namer) Pardus cum hœdo accubabit.* That is to ſay, The Wolf ſhall dwell with the Lamb, and the Pardal, Libbard, and Panther ſhall lie with the Kid. So in the viſion of *Daniel*, chap. 7. among the four beaſts comming out of the Sea, the Prophet ſeeth *Namer* a Leopard. In the 13. Revel. of S. *John*, he ſeeth another Beaſt riſing out of the Sea, having ten horns, and he ſaith it was like *Pardalei*, which *Eraſmus* tranſlateth *Pardo*, a Leopard. Jer. 5. *Pardus (Namer) vigilat ſuper civitatem eorum, ut omnem inde egredientem diſcerpat.* That is, a Panther or Pardal watcheth at the gates of the City, that he may tear in pieces every one that cometh forth. *Factus ſum eis ſicut Leo, & ſicut Pardus (ſicut Namer) directus ad viam ſuam.* For *Namer* in that place the *Grecians* tranſlate *Pardalis*, a Pardal. In the 13. Jer. *Si mutare poteſt Æthiops pellem ſuam, aut Pardus maculas ſuas, & vos poteritis bene facere, cum didiceritis malum.* If the Blackmoore can change his skin, or the Leopard his ſpots, then may you do well which have learned to do ill. Cant. 4. *Coronaberis de vertice Siner, & Hermon, de cubilibus Leonum, de montibus Pardorum.* That is, Thou ſhalt be crowned from the top of *Siner* and *Hermon*, from the dens of the Lions, and the Mountains of the Leopards. Now according to *Brocardus*, the Mountain of the Leopards is diſtant from *Tripolis*, in the holy land two

A more exact definition of Pardals and Leopards.

leagues *Raſis* and *Avicen*, two *Arabians*, do call the Panther and Leopard by one name, *Alſbeth*, or *Alphil*, ſo that by comparing all theſe together, the Panther, Pardal, Libbard, and Leopard, are but one Beaſt, called by divers names. For the farther manifeſting hereof, it is good to examin what is ſaid of the Pardal and Leopard in particular, that ſo having expreſſed that, it may be clear by the diſcourſe ſucceeding, that there is no difference betwixt them and the Panther, or very ſmall. Firſt of all therefore it is ſaid of the *Pardus*, that it differeth not from the Panther, but only in ſex, and that the skin hath received a natural tincture of divers ſpots. *Ariſtotle* writeth thus of it, *Cutis Chamæleontis diſtincta maculis ut Pardalia.* The skin of the Chamælion is ſpotted like a Pardals, and in relation of *Lampridius*, where he ſheweth how *Heliogabalus* was wont to ſhut up his drunken friends, *cum Leonibus, Leopardis, & urſis, ita ut expergefacti in cubiculo eodem Leones, urſos, Pardos cum luce, vel quod eſt gravius nocte invenirent, ex quo pleriq; exanimati ſunt*, and ſo forth.

By which words it is apparent, that thoſe which in the firſt place he calleth Leopards, in the laſt place he calleth Pardals, and the only difference betwixt the Leopard, Pardal, and Lion, is that the Leopard or Pardal have no manes: and therefore they are called *Ignobiles Leones*. *Iſidorus* and *Solinus* write in this manner: *Pardus ſecundum poſt Pantheram eſt genus, varium ac velociſſimum, & preceps ad ſanguinem, ſaltu enim ad mortem ruit, ex ad ulterio Pardi & Leæna, Leopardus naſcitur, & tertiam originem efficit.* That is to ſay, the Pardal is the next kinde to a Panther, being divers coloured and very ſwift, greedy after bloud, and catcheth his prey by leaping: the Leopard is bred betwixt the Pardal and the Lioneſs, and ſo that maketh a third kinde: by which teſtimony it appeareth, that theſe names make three ſeveral kindes of Beaſts, not diſtinct in nature, but in quantity, through commixture of generation.

Boytius.

The greateſt therefore they call Panthers, as *Bellunenſis* writeth. The ſecond they call Pardals, and the third, leaſt of all, they call Leopards, which for the ſame cauſe in *England* is called a Cat of the Mountain. And truly in my opinion, until ſome other can ſhew me better reaſon I will ſubſcribe hereunto, namely that they are all one kinde of Beaſt, and differ in quantity only through adulterous generation. For in *Africk* there is great want of waters, and therefore the Lions, Panthers, and other Beaſts do aſſemble themſelves in great numbers together at the running Rivers, where the Pardals and the Lions do engender one with another: I mean the greater Panthers with the Lioneſſes, and the greater Lions with the Panthers; and ſo likewiſe the ſmaller with the ſmaller, and thereby it cometh to paſs that ſome of them are ſpotted, and ſome of them without ſpots.

Pliny.

The Pardal is a fierce and cruel Beaſt, very violent, having a body and minde like ravening birds, and ſome ſay they are ingendered now and then betwixt Dogs and Panthers, or betwixt Leopards and Dogs, even as the *Lycopanthers* are ingendred betwixt Wolves and Panthers. It is the nature of theſe Pardals in *Africk*, to get up into the rough and thick trees, where they hide themſelves amongſt the boughes and leaves, and do not only take birds, but alſo from thence leap down upon Beaſts and Men when they eſpy their advantage; and all theſe things do belong unto the Panthers.

Of the Leopard.

Concerning the Leopard, the word it ſelf is new and lately invented, for it is never found among any of the ancients, before *Julius Capitolinus*, or *Spartianus*. *Sylvaticus* maketh no difference betwixt *Pardalis* and *Leopardus*, and the *Italians* generally call a Pardal *Leopardo*, and never *Pardo*, except ſome of the Poets, for brevity ſake in a verſe. The Leopard is like to a Lion in the head and form of his members, but yet he is leſſer and nothing ſo ſtrong: by the ſight of a Leopards skin *Geſner* made this deſcription of the Beaſt:

The length (ſaith he) from the head to the tail, was as much as a mans ſtature, and half a cubit. The tail of it ſelf three ſpans and a half, the breadth in the middle three ſpans, the colour a bright yellow diſtinguiſhed into divers ſpots, the hair ſhort and moſſie.

The price of the skin was about five nobles, or forty ſhillings, for they differ in price, according to the Regions out of which they are brought, they which come furtheſt are ſold deareſt, and they which come leſs way are ſold cheapeſt. It is a wrathful and an angry Beaſt, and whenſoever it is ſick, it thirſteth after the bloud of a wilde Cat, and recovereth by ſucking that bloud, or elſe by eating the dung of a man. Above all other things it delighteth in the Camphory tree, and therefore lyeth underneath it, to keep it from ſpoil; and in like ſort the Panther delighteth in ſweet gums and ſpices, and therefore no marvel if they cannot abide Garlick, becauſe it annoyeth their ſenſe of ſmelling: And it is reported by S. *Ambroſe*, that if the walls of ones houſe or ſheep-coat be anointed with the juyce of Garlick, both Panthers and Leopards will run away from it, but of this matter we ſhall ſay more afterwards.

Albertus.

The Leopard is ſometimes tamed, and uſed in ſtead of a Dog for hunting, both among the *Tartarians*, and other Princes, for they carry them behinde them on Horſe-back, and when they ſee a Deer or Hart, or convenient prey, they turn them down upon them ſodainly, who take them and deſtroy them; yet ſuch is the nature of this Beaſt, as alſo of the Pardal, that if he doe not take his prey at the fourth or fift jump, he falleth ſo angry and fierce, that he deſtroyeth whomſoever he meeteth, yea many times his Hunter. Therefore the Hunters have always a regard to carry with them a Lamb or a Kid, or ſome ſuch live thing, wherewithal they pacifie him after he hath miſſed his game, for without bloud he will never be appeaſed: and thus much ſhall ſuffice to have ſpoken of the difference betwixt Panthers, Pardals, and Leopards, and their ſeveral names in *Greek* and *Latine*, from whom almoſt all Nations do derive their denomination, for the *Italians* call it *Leonpardo*; the *French*, *Leopard*, and *Lyopard*; and *Germans*, *Leopard*, and *Leſarad*, and *Pantherthier*; the *Spaniards*, *Leonpardal*, and *Leopardo*; the *Illyrians*, *Leubart*; the *Chaldeans*, *Nimra*; and ſome make no difference betwixt this and the *Arabian* Wolf: The reaſon of the *Greek* word *Pardalis*, or *Pordalis*, (for they ſignifie both one) ſeemeth to me in moſt probability to be derived from the *Hebrew* word *Pardes*, ſignifying a Garden, becauſe as colours in a Garden make it ſpotted, and render a fragrant ſmell, ſo the Panther is divers coloured like a Garden of ſundry flowers, and alſo it is ſaid to carry with him a moſt ſweet ſavour whither ſoever he goeth, and therefore in ancient time they made their Ivory tables ſtanding upon pictures of Panthers, whereof *Juvenal* writeth thus in one of his Satyres:

The names in other languages.

Olim ex quavis arbore menſa fiebat,
At nunc divitibus cœnandi nulla voluptas
——niſi ſuſtinet orbes
Grande ebur, & magno ſublimis Pardus hiatu,
Dentibus ex illis quos mittit porta Syenes
Jam nimios capitiq; graves, &c.

For the ſame cauſe *Pardalis* was the name of a notable Harlot, for as the Panthers by their ſweet ſmells draw the Beaſts unto them and then deſtroy them, ſo alſo do Harlots deck and adorn themſelves with all alluring provocations, as it were with inchanted odours, to draw men unto them, of whom they make ſpoil and rapine: There is a pretious ſtone alſo called *Lapis Pantherus*, brought out of *India*, whereupon if a man look before the Sun-riſing he ſhall ſee divers colours, namely, black, red, green, ruſſet, purple, and Roſe colour, and they ſay it hath as many vertues as it hath colours, but I liſt not to follow the name any further.

Evax.
Sylvaticus.
Albertus.
Vartoman.

Countries of Panthers.

The Countries breeding Panthers are *Abaſia* in the Kingdom of *Melacha*, in the Iſle of *Sumatra*. Likewiſe in *Aſia*, eſpecially *Syria*, for there are none in *Europe*, all *Africk* over they are plentiful, as in *Lybia* and *Mauritania*, where abound all ſtore of wilde Beaſts. Likewiſe beyond *Gaudupa*; for *Apollonius* and his companions ſaw there many Lions and Panthers. In *Arabia* the furtheſt part, namely the Promontory of *Dyra* towards the South, are the ſtrongeſt Pardals of the world, (as ſaith *Strabo*:) Likewiſe in the *Mediterranean* Region beyond *Barygaza* toward the South, unto *Dachinabades*, and towards the Eaſt are all ſorts of wilde Beaſts, both Tygers and Panthers; and *Diodorus* writeth that in that part of *Arabia*, joyning upon *Syria*, there Lions and Pardals are both more in number and greater in quantity then in *Lybia*.

Alſo it is ſaid by *Volaterranus* and *Gillius*, that the Panther of *Lycia* and *Caria* are very long, but yet weak and without carriage, being not able to leap far, yet is their skin ſo hard as no Iron can pierce. Betwixt the River *Ganges* and *Hiphaſis*, *Apollonius* ſaw many Panthers. The *Indians* alſo breed many and make them tame, and Leopards do live in the Woods of *Barbatia*.

Leo Afric.

The ſeveral parts of Panthers.

It is apparent by that which is already ſaid, that the Panther is the name of the greater Pardal, and the Leopard of the leſſer, which the *Arabians* call *Alnemer*, and *Alfhed*, *Alnemer* is bigger then a Linx, but like a Leopard, having greater and ſharper nails and feet, black and terrible eyes, and therefore ſtronger, fiercer, and bolder then the Leopard, for it ſetteth upon men, and deſtroyeth them. *Oppianus* deſcribeth both kindes in this manner; There are (ſaith he) two kindes of Pardals, a greater and a leſſer, the greater are broader backt, and bigger in quantity, the leſſer being leſs in quantity, but not inferior in ſtrength: both of them have the ſame ſhape and colour of body, except in their tail: for the greater Pardal hath the leſſer tail, and the leſſer the greater: either of them have ſolid and ſound thighs, a very long body, bright ſeeing eyes, the apples whereof do gliſter under their eye-lids, which are gray and red within like to burning coals, their teeth pale and venemous, their skin of divers colours, yet bright and pleaſant, the ſpots ſtanding like ſo many black eyes upon it: thus far *Oppianus*. Such skins are oftentimes ſold in the Marts of *Europe*, which are brought in bundles twenty or thirty together, and it is not to be forgotten, which *Volaterran* citeth out of *Ælianus*, that there is in this kinde of Pardals a Beaſt called *Bitis*, not unlike to the vulgar Leopards in all parts, except that it wanteth a tail; and they ſay that if this Beaſt be ſeen by a woman, it will inſtantly make her to be ſick; but to proceed to the reſidue of the parts of theſe Beaſts, we muſt remember that which *Ariſtole* writeth in his Phyſiognomy; as is recorded by *Adamantius*: *Leo perfectiſſimam maris ideam præ ſe fert, Pardalis vero fœmineam formam exprimit, cruribus tantum exceptis, quibus ad invadendum fortiter utitur*, that is to ſay: Among all Beaſts the Lion doth moſt reſemble the male, and the Pardal the female, except in the legs which ſhe uſeth to take her prey.

It hath a little face, a little mouth, little eyes, ſomewhat white, plain, and not much hollow, a long fore-head, ears rather round then ſmooth or broad, a neck very long and ſlender, the breaſt not well ſet out with ribs, becauſe they are ſmall; the back long, the buttocks and thighs very fleſhy, the parts about the ſmall of the belly or loins are more ſmooth, leſs hollow and bunchy; the colour divers, and the whole body inarticulate, and not well compounded for the outward ſight: and it is to be remembered (ſaith *Cardan*) that all ravening Beaſts are like a Cat, as Lions, Panthers, Linces, and Pardals, for they have in common the length and ſtrength of their claws, beautiful party coloured skins; a little head and round face, a long tail, nimbleneſs of body, and wildeneſs of nature, living upon the meat they get in hunting.

The *Perſians* call a Pardal *Berbueſt*, and *Scaliger* deſcribeth it thus: In his red or yellow hair, he is like a Lioneſs, but ſet with divers black ſpots both in length and breadth, as if they were painted. It hath a brown face, aſperſed with black and white, and it is to be remembered, that as other

Albertus.
Pliny.

Beaſts are either all black, or all red, or all white, or all of one colour by nature, ſo alſo it is natural to Pea-cocks and Panthers, to have divers colours in them, for there are in *Hircania* Panthers with little round ſpots like eyes, both black, white, blew, and green, as both *Solinus* and *Claudius* teſtifie, which cauſed *Martial* to write thus; *Picto quod juga delicata collo Pardus ſuſtinet.* There is a land called *Terra eremborum*, inhabited by the *Troglodytes* and *Sarazens* in *Lybia*, where the upper face of the earth is compared unto the Panthers skin, becauſe through the heat of the Sun it is burned, and died as it were into divers colours; ſo that ye ſhall ſee divers ſpots of white, black, and green earth, as if it were done of purpoſe by the hand of man. The teeth of the Panther are like ſaws, as are alſo a Dogs and a Lions: their tongue of ſuch incredible ſharpneſs, that in licking it grateth like a file.

Ariſtotle.

The females have four udders in the midſt of their belly, the heart is great in proportion, becauſe he is a violent Beaſt, terrifying man. There are many fiſſures in their feet. Their former feet have five diſtinct claws or fingers, and their hinder-feet but four, for little ones among four-footed beaſts have five fingers upon their hinder-feet: when they go, they hide their nails within the skin of their feet, as it were in ſheaths, never bringing them forth but when they are in their prey, to the intent they ſhould never be broken nor dulled. Their tails have no long hairs at the end like a Lions or Oxes; and the Leopard hath a wider mouth then the Pardal.

The food of Panthers.

The female is oftener times taken then the male, the reaſon is given by *Volaterran*; becauſe ſhe is inforced to ſeek abroad for her own meat and her young ones. The place of their aboad is among the Mountains and Woods, and eſpecially they delight in the tree Camphory. They raven upon fleſh both Birds and Beaſts: for which cauſe they hide themſelves in trees, eſpecially in *Mauritania*, where they are not very ſwift of foot, and therefore they give themſelves to take Apes, which they attain by this policy: when they ſee the Apes, they make after them, who at their firſt approaching climbe up into the tops of trees, and there ſit to avoid the Panthers teeth, for ſhe is not able to follow them ſo high, but yet ſhe is more cunning then the Apes, and therefore deviſeth more ſhifts to take them, that where nature hath denyed her bodily power, there ſhe might ſupply that want by the gifts of the minde. Forth therefore ſhe goeth, and under the tree where the Apes are lodged, ſhe lyeth down as though ſhe were dead, ſtretching out her limbs, and reſtraining her breath, ſhutting her eyes, and ſhewing all other tokens of expiration. The Apes that ſit on the tops of the tree behold from on high the behaviour of their adverſary, and becauſe all of them wiſh her dead, they more eaſily believe that which ſo much they deſire, and yet dare not deſcend to make tryal. Then to end their doubts, they chuſe out one from among them all, whom they think to be of the beſt courage, and him they ſend down as it were for an eſpy, to certifie all the reſidue: forth then he goeth with a thouſand fears in his minde, and leapeth from bough to bough with no great haſt, (for dread of an ill bargain:) yet being come down, dareth not approach nigh, but having taken a view of the counterfeit, and repreſſed his own fear, returneth back again: After a little ſpace he deſcendeth the ſecond time, and cometh nearer the Panther then before, yet returneth without touching him. Then he deſcendeth the third time, looking into his eyes, and maketh trial whether he draweth breath or no, but the Panther keepeth both breath and limbs immoveable, by that means imboldning the Apes to their own deſtruction; for the Spie-ape ſitteth down beſide the Panther, and ſtirreth not: now when thoſe which are above in the tree, ſee how their intelligencer abideth conſtantly beſide their adverſary without harm, they gather their ſpirits together, and deſcend down in great multitudes, running about the Panther, firſt of all going upon him, and afterwards leaping with great joy and exultation, mocking this their adverſary with all their apiſh toys, and teſtifying their joy for her ſuppoſed death: and in this ſort the Panther ſuffereth them to continue a great ſeaſon, till he perceiveth they are throughly wearied, and then upon a ſudden he leapeth up alive again, taking ſome of them in his claws, deſtroying and killing them with teeth and nails, till he have prepared for himſelf a rich dinner out of his adverſaries fleſh. And like as *Ulyſſes* endured all the contumelies and reproaches both of his maids and Wives ſuiters, until he had a juſt occaſion given him of revenge, ſo doth the Panther the diſdainful dealing of the Apes: whereupon came the proverb, *Pardi mortem diſſimulat*, *Thanaton Pardaleos hypocrinetai*, againſt a cunning diſſembling fellow; ſuch a one as *Brutus* was, who counterfeited madneſs that he might get the Empire.

Their love of ſpices.

So great is the love of this Beaſt to all Spices and Aromatical trees, that they come over all the Mountain *Taurus* through *Armenia* and *Silia*, when the windes bring the ſavour of the ſweet gum unto them, out of *Pamphilia* from the tree Storax: whereupon lyeth this ſtory; There was a certain Panther which was taken by King *Arſaces*, and a golden collar put upon his neck, with this inſcription; *Rex Arſaces Deo Niſeo*, that is, King *Arſaces* to the God *Bacchus*: for *Bacchus* was called *Niſeus*, of a City *Niſa* in *India*. This Beaſt grew very tame, and would ſuffer himſelf to be handled and ſtroked by the hands of men, until the Spring time that he winded the ſavour of the Aromatical trees, and then he would run away from all his acquaintance, according to his kinde, and ſo at laſt was taken in the neather part of the Mountain *Taurus*, which was many hundred miles diſtant from the Kings Court of *Armenia*.

The ſavour or ſmell of Panthers.

We have ſhewed already how they love the gum of Camphory, watching that tree, to the end to preſerve it for their own uſe, and indeed as *Ælianus* ſaith: *Admirabilem quantam odoris ſuavitatem olet Pardalis, quam bene olendi præſtantiam divino munere donatam, cum ſibi propriam plane tenet, tum vero cætera animalia ejus hanc vim præclare ſentiunt*: that is to ſay, The Panther or Pardal ſmelleth moſt ſweetly, which ſavour he hath received from a divine gift, and doth only feel the benefit of it himſelf, but alſo bewray it unto other Beaſts: for when he feeleth himſelf to be hungry and ſtand in need of meat, then doth he get up into ſome rough tree, and by his ſavour or ſweet ſmell, draweth unto him an innumerable company of wilde Goats, Harts, Roes, and Hindes, and ſuch other Beaſts, and ſo upon a ſudden leapeth down upon them, when he eſpyeth his convenient time.

Ariſtotle.
Volaterranus.

And *Solinus* ſaith, that the ſweetneſs of his ſavour worketh the ſame effect upon them in the open fields, for they are ſo mightily delighted with his ſpotted skin and fragrant ſmell, that they will alwayes come running unto him from all parts, ſtriving who ſhall come neareſt him to be ſatisfied with the ſight, but when once they look upon his fierce and grim face, they all are terrified and turn away: for which cauſe the ſubtle Beaſt, turneth away his head, and keepeth that from their ſight, offering the more beautiful parts of his body, as an alluring bait to a Mouſe, and deſtroy them: and from hence there are ſome which are of opinion, that he receiveth his name *Panthera*, of congregating together all kinde of Beaſts to look on him, for *Pan* ſignifieth all, and *Theria* ſignifieth Beaſts. *Albertus* is of opinion, that the report of the Panthers ſavour or ſweet ſmell is but a fable, becauſe (he ſaith) it is written as a *Maxim* among Philoſophers, that *Cætera animalia præter hominem neq; ſuaviter neq; moleſte odoribus affici*, that is: That no creatures (man excepted) can be ſaid to ſmell either ſweetly or ſowrely: and *Theophraſtus* writeth, *Animal nullum penitus odoratum eſt niſi quis dixerit Pardalin, belluarum cenſui bene olere*, that is: There is no creature that can be ſaid to be ſo odoriferous, except the Pardal ſeem to ſmell well to the ſcents of other Beaſts: for it is certain, that there be ſome ſavours and ſmels which Beaſts do follow and refuſe, being led thereunto onely for the choiſe of their meat; for by their noſes they chooſe that which is the convenient and agreeable to their natures, but that they ſhould be drawn by any ſmells or ſavours meerly, and for no other cauſe but the pleaſure of the ſcents, as it is a reaſonable part in man, ſo it is unreaſonable, to attribute the very ſame unto a Beaſt.

Iſidorus.

Yet herein by the favour of *Albertus* I diſſent from him, for it being granted, which all men yeeld unto, that either the ſpots of his skin, which ſeem to be as many eyes as colours, or elſe the ſweet ſavour which cometh from him is the occaſion of the Beaſts aſſembling about him; then it followeth, that when he is from the earth, and lodged in a tree, and ſo not viſible to the eyes of the beaſts, if then I ſay they aſſemble about the tree wherein he is lodged, there is no cauſe to draw the Beaſts unto him, but the attractive power of his ſweet ſavour; and what want of reaſon can it be juſtly deemed, to ſay that Beaſts love ſweet ſavours, ſeeing both *Albertus*, and all other learned men that I know, do confidently affirm, that many wilde Beaſts do forſake their meat to hear muſick; and alſo the Badger doth forſake his own den when he perceiveth the Fox hath emptied his belly therein.

Therefore I will conclude this point with admiration of the work of the Creator, to conſider how wiſely he hath diſpoſed his goodneſs, and how powerfully he communicateth the affections of his divinity even unto brute Beaſts, who doth not diſtinguiſh them aſunder only by their outſides and exterior parts, nor yet by their inſides and qualities of their mindes, but alſo by the air they draw in, and the ſavour they ſend forth.

Among all kindes of Beaſts the male is moſt couragious and fierce, except in Bears and Panthers, for the female Panther is more generous then the male. At the time of their luſt, they have very peculiar voices, which cauſed the Poet to write thus,

Their time of luſt.

Panther caurit amans, Pardus hiando felit.

At the ſound of thoſe voices other Beaſts come about them, as both Lions, Lioneſſes, Wolves, and Thoes. They never bear above once, becauſe when the young ones begin to ſtir in the dams belly, and gather ſtrength for birth, they cannot tarry the juſt time of their delivery, but tear out the womb or bag wherein they lie with the ſharpneſs of their nails, and therefore their dam is forced for the avoiding of pain to caſt them forth of the womb both blinde and deformed, which yet ſhe nouriſheth tenderly, but afterwards can never conceive again, by reaſon that her womb is ſo torn with the claws of her firſt whelps, that it is not able to retain to perfection the received ſeed of the male.

Panthers live together in flocks or heards, and greatly delight in their own kinde, but in no other that I know, and therefore I wonder from what Author *Iſidorus* wrote. *Panther omnium animalium amicus eſt excepto Dracone*; That the Panther is friendly to all Beaſts except the Dragon. It was not in vain, that the Poets feigned the Nurſes of *Bacchus* to be turned into Panthers, and that they devoured *Pentheus*, becauſe he railed upon *Bacchus*; for as a Lion doth in moſt things imitate and reſemble the very nature of Man, ſo after the very ſelf ſame manner doth the Panther of a Woman, for it is a fraudulent, though a beautiful Beaſt, or (as *Adamantius* writeth) *anthere ingenium molle eſt, effeminatum, iracundum, inſidioſum, & fraudulentum, timidum ſimul & audax, his moribus corporis etiam forma reſpondit*: that is; The diſpoſition of the Panther is wanton, effeminate, outragious, treacherous, deceitful, fearful, and yet bold: and for this occaſion, in holy Scriptures it is joyned with the the Lion and the Wolf, to make up the triplicity of ravening Beaſts: and therefore alſo we read, that the wiſeſt among the *Egyptians*, when they will ſignifie a cunning man covering the ſecret corruption and evil diſpoſition of his minde, pretending good, and yet intending evil, they picture

Their love and hatred, enemies and friends.

The deſcription of Panthers.

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a Panther; for we have ſhewed already, how he doth cover both his head and his body to take his prey.

The taming of Panthers.

This Beaſt is never ſo tamed but that he falleth into his wilde fits again. Their love to their young ones is exceeding great, for if at any time while they are abroad to forage, they meet with Hunters that would take them away, they fight for them unto death, and to ſave them from blows, interpoſe their own bodies, receiving mortal wounds, but if they finde their young ones taken out of their den in their abſence, they bewail their loſs with loud and miſerable howling.

Demetrius the Philoſopher, relateth this ſtory of a Panther, that lay in the high way to meet with a man to help her young ones out of a ditch or deep pit wherein they were fallen, at length there appeared in her ſight the father of *Philinus* a Philoſopher, who preſently began to run away aſſoon as he ſaw the Beaſt, but the poor diſtreſſed Panther rowled after him in humble manner, as though ſhe had ſome ſute unto him, and took him lightly by the skirt of his garment with one of her claws: the man perceiving that ſhe gave ſuck by the greatneſs of her Udders hanging under her belly, began to take pity upon her, and layed away fear, thinking that indeed which happened, that her young ones were taken from her by one means or other; therefore he followed her, ſhe drawing him with one of her feet unto the cave whereinto her young ones were fallen, out of which he delivered them to the mother as ranſome for his own life, and then both ſhe and the young ones did follow him rejoycing, out of the danger of all Beaſts, and out of the Wilderneſs, diſmiſſing him without all manner of harm, which is a rare thing in a man to be ſo thankful, and much more in a Beaſt: and unto this ſtory of their love and kindeneſs to their young ones, I may add another, worthy to be remembred out, of *Ælianus*:

A notable ſtory of a Panthers love to his companion.

There was (ſaith he) a man which brought up a tame Panther from a whelp, and had made it ſo gentle, that it refuſed no ſociety of men, and he himſelf loved it as if it had been his wife. There was alſo a little Kid in the Houſe brought up tame, of purpoſe to be given unto the Panther when it was grown to ſome ſtature or quantity, yet in the mean ſeaſon the Panther played with it every day: at laſt it being ripe, the Maſter killed it, and laid it before the Panther to be eaten, but he would not touch it, whereupon he faſted till the next day, and then it was brought unto him again, but he refuſed it as before; at laſt he faſted the third day, and making great moan for meat, according to his uſual manner, had the Kid laid before him the third time; the poor Beaſt ſeeing that nothing would ſerve the turn, but that he muſt either eat up his chamber-fellow, or elſe his Maſter would make him continually faſt, he ran and killed another Kid, diſdaining to meddle with that which was his former acquaintance, yea though it were dead; herein excelling many wicked men, who do not ſpare thoſe that have lived with them in the greateſt familiarity and friendſhip, to undo and overthrow them alive for the advancement of themſelves.

The harms of Panthers.

We have ſaid already, that they moſt of all reſemble Women, and indeed they are enemies to all creatures. The Leopards of *Barbary* do little harm to men that they meet, except they meet them in ſome path way where the man cannot decline the Beaſt, nor the Beaſt the Man, there they leap moſt fiercely into his face, and pull away as much fleſh as they can lay hold upon, and many of them with their nails do pierce the brains of a man.

Leo. Afer.
Albertus.
Avicenna.

They uſe not to invade or force upon flocks of Sheep or Goats, yet whereſoever they ſee a Dog, they inſtantly kill and devour him. The great Panther is a terror to the Dragon, and ſo ſoon as the Dragon ſeeth it, he flyeth to his cave. The leſſer Panthers or Leopards do overcome Wolves being ſingle, and hand to hand as we ſay, but by multitude they over-maſter and deſtroy him, for if he endevour to run away, yet they are ſwifter and eaſily overcome it.

Pliny.
Orus.

There is alſo great hatred and enmity betwixt the Hyæna and the Panther, for in the preſence of the Hyæna, the Pardal dareth not reſiſt; and that which is more admirable, if there be a piece of an Hyænas skin, about either man or beaſt, the Panther will never touch it, and if their skins after they be dead be hung up in the preſence of one another, the hair will fall off from the Panther; and therefore when the *Egyptians* would ſignifie how a Superiour was overcome by a Inferiour, they picture thoſe two skins.

The terror of Panthers.

If any thing be anointed with broath wherein a Cock hath been ſodden, neither Panthers nor Lions will ever touch it, eſpecially if there be mixed with it the juyce of Garlick.

Pliny.
Raſis.
Æſculapius.

Leopards are afraid of a certain tree called *Leopards-arbor*, Leopards-tree. Panthers are alſo afraid of the skull of a dead man, and run from the ſight thereof: yet it is reported, that two year before the death of *Francis* King of *France*, two Leopards, a male and a female were let eſcape in *France* into the Woods, either by the negligence or the malice of their Keepers, that is, a male and a female, and about *Orleance* tore in pieces many men and women; at laſt they came and killed a Bride, which was that day to have been marryed, and afterward there were found many carkaſes of Women deſtroyed by them, of which they had eaten nothing but only their breaſts: Such like things I might expreſs many in this place, whereby the vengeance of Almighty God againſt mankinde for many ſins, might ſeem to be executed by the raging miniſtery of wilde, ſavage, and ungentle Beaſts.

Laws againſt Panthers.

For this cauſe we read in ancient time how the Senators of *Rome* gave laws of puniſhment againſt them that ſhould bring any Panthers into *Italy*, eſpecially any *African* Beaſts: and the firſt that gave diſpenſation againſt thoſe laws was *Cneius Aufidius* the peoples *Tribune*, who permitted them for the ſake of the *Circenſian* games: and then *Scaurus* in the office of his ædility brought alſo in an hundred and fifty: After him *Pompey* the great, four hundred and ten, and laſtly *Auguſtus* that ever remembred and renowned Emperor, four hundred and twenty. Thus laws which were firſt made by great men and good Senators, for the ſafety of the common-wealth, became of no great value, becauſe as great or greater then the Law-makers, had a purpoſe to advance themſelves by the practiſe of thoſe things which law had juſtly forbidden: for if thoſe decrees had ſtood effectual, as the victorious Champions had loſt that part of their vain triumphs, ſo many people had afterward been preſerved alive, who by the cruelty of theſe Beaſts were either torn in pieces, or elſe received mortal wounds.

It was not in vain that the bleſſed Martyr of Jeſus Chriſt *Ignatius*, who was afterwards torn in pieces by wilde Beaſts at *Rome*, did write thus in his Epiſtle to the *Roman* Chriſtians concerning his handling by the *Roman* Souldiers, as he was brought priſoner out of *Syria* to *Rome*. *A Syria Romam uſq; cum beſtiis depugno per terram & mare, die noctéque vinctus cum decem Leopardis, hoc eſt cum militari cuſtodia, qui ex beneficiis deteriores fiunt.* From *Syria* (ſaith he) to *Rome* I have fought with Beaſts, being night and day held in bondage by ten Leopards, I mean ten Souldiers, who notwithſtanding many benefits I beſtowed upon them, yet do they uſe me worſe and worſe: and thus much for the cruelty of Panthers and Leopards.

The nature of tamed Panthers.

We have ſhewed already how they become tame, and are uſed in hunting, unto which diſcourſe (ſomewhat out of the place) I will adde a true narration of two Panthers or Leopards nouriſhed in *France* for the King, whereof one was of the bigneſs of a great Calf, and the other of a great Dog, and that on a day the leſſer was brought forth for the King to behold how tame and tractable he was, and that he would ride behinde his Keeper upon a cloth or pillow being tyed in a chain: and if a Hare had been let looſe in his preſence, and he turned down to her, within a few jumps or leaps he would attain and take her. When the Keeper was to take up the Leopard again, he did come to him backward, leſt if he ſhould ſee his face, he ſhould leap upon him and wound him, (for as we have ſaid they are angry being chafed, and are ready to fly into the Hunters face) therefore he turneth his face away from him, and betwixt his legs reacheth him a piece of bread or fleſh, and ſo he gently taketh him into his chain and collar again, leading him away to his houſe, and aſſoon as the man was mounted the Beaſt alſo knew his ſeat, and leaped up after him.

And the ſame party alſo related, that when as a Lion was turned forth to a Bull, the Lion very quietly without ſtirring lay down and did no harm, or offer any violence or combate with the Bull; but afterward when as the two Leopards were turned forth to the ſame Bull, they inſtantly ran and took the Bull by the throat, and without all doubt they had ſtrangled and pulled out his throat, (had not their Keepers which had long chains tyed about their necks in their hands) reſtrained and pulled them off again. By this may be conjectured how great is the rage of the wilde and untamed Leopards and Panthers, ſeeing the tame and gentle are ſo cruel; and therefore the Lord in the Prophets did moſt wiſely compare the ſiege of the *Aſſyrians* about *Jeruſalem* to a Leopard, watching at the gates of the City to deſtroy all that came out thereat.

The taking of Panthers.

Having thus diſcourſed of the nature, parts, kindeneſs, love, and hatred of theſe Beaſts in general, it now followeth to expreſs the beſt means to avoid and deſtroy them, that ſo we may not only know our enemy, but alſo learn the way to overmatch and curb him.

Dioſcorides.

There is a kinde of Henbane which is called *Pardalianches* or Libbard-bane, which the Inhabitants of *Phalnacus*, and the Mount *Ida*, were wont to lay in the Mountains for the deſtroying of Leopards, Pardals, and Panthers. This herb is not much known at this day, yet I take it to be the ſame which groweth in many places of *France*, and *Savoy*, and it is called *Tora*, by the root thereof beaten to powder, and ſtopped up in fleſh, not only Beaſts, but alſo Wolves and Swine, as wilde Boars are deſtroyed if they taſt thereof: when the Beaſt perceiveth himſelf poyſoned, preſently he ſeeketh for mans dung, for without that he cannot be delivered; wherefore the Hunters do alſo place near unto it ſome veſſel of it hanging in a tree, with the mouth or way open that leadeth into it, whereinto the greedy Beaſt leapeth, and being in, cannot get forth again, but rather dyeth with hunger, or elſe is taken and killed; or elſe the veſſel is hanged up ſo high, that the Beaſt by ſtraining himſelf to leap into it, and get his deſired medicine, (but all in vain) ſpendeth out the time of his recovery till the poyſon hath throughly corrupted his body, and every part and member, for otherwiſe ſo great is the life, ſpirit, and ſtomach of this Beaſt, that he will fight and not yeeld to his adverſary, although his guts and intrails hang about his legs out of his belly.

Pliny.
Ariſtotle.

Therefore the Panthers of *Hircania* do more often periſh by poyſon then by other violence of Swords, Spears, or Dogs: for by this poyſon the Beaſt many times falleth to ſuch a looſeneſs of his belly, and withall ſuch a weakneſs thereby, that he is taken alive. Likewiſe in *Armenia* there are certain Fiſhes which are poyſon to Lions, Bears, Wolves, Lynces, and Panthers, the powder of this fiſh the Inhabitants put into the ſides and fleſh of their Sheep, Goats and Kyds, without all harm to theſe beaſts; but if the Panthers or any ravening Beaſt come and devoure any of thoſe Sheep ſo dreſſed, preſently they die by poyſon.

When they are hunted and forced in the preſence of the Hunters, then they leap directly unto their heads, and therefore the Hunter taketh great care both of his ſtanding and alſo of holding his ſpear, for if he receive not the Panther in his leap, and gore him to the heart, or elſe otherwiſe wound him mortally, he is gone, and his life is at an end. *Oppianus* alſo ſheweth, that he is taken as Lions are, eſpecially by theſe means following; for when the Hunters perceive the way or path which he uſeth to his water, therein they make a deep ditch (but not ſo great as they make for a Lion) wherein they erect a woodden pillar or great poſt, unto that they tie certain engins, and withall a male little Dog, whoſe ſtones or tender cods they binde with ſome ſtring or cord, ſo as the young beaſt may whine and cry for pain, by which voyce he inviteth and calleth the Panther to his deſtruction: For the greedy beaſt winding the voice of the Dog, beſtirreth himſelf to meet with his deſired prey or booty; at laſt finding the ditch, and ſeeing the Dog down, he leapeth, where the engins take preſent hold upon him and deſtroy him; and ſo he deſcribeth the ſame means to take great fiſhes by the ſight of little fiſhes ſwimming in a Net.

Oppianus. In hunting of wilde beaſts the wary Wood-man muſt make good choice of his Horſe, not only for the metal and agility which are very neceſſary, but alſo for the colour, as we have already expreſſed in the ſtory of the Horſe: for the gray Horſe is fitteſt for the Bear, and moſt terrible to him; the yellow or fire colour againſt the Bore; but the brown and reddiſh colour againſt the Panther.

The *Moores* alſo uſe other deviſes to take Panthers and all ſuch noiſome beaſts, they encloſe in a little houſe certain rotten fleſh, which by the ſavour thereof when it ſtinketh, draweth the wilde beaſts unto it: For they make a dore, or a gate of reeds unto the ſaid houſe, through which the filthy ſmell breaketh out and diſperſeth it ſelf into the wide air; preſently the wilde beaſts take it up, and follow it with all ſpeed they can, for there is not any Muſk or other ſweet thing wherewithal men are ſo much delighted, as ravening beaſts are with the ſavour of carrion: therefore like an amorous cup it draweth them to the ſnare of perdition: for beſide the rotten fleſh, they erect many engins and unavoidable traps, to ſnare in the beaſt when he cometh to raven.

The Chriſtians of *Africk* did inſtitute a general hunting of Leopards, incloſing the ends of the ways through which the beaſts were to paſs: The Leopard when he was ſtirred ran to and fro diſtracted, becauſe in all his paſſages he found Horſe-men ready to reſiſt him, neither left they any way for him to eſcape: at length wearyed with many windings, turnings, and provocations, the Horſemen might eaſily come unto him and pierce him with their ſpears: but if it fortuned that the Leopard eſcaped, and brake away from the Hunters; then he at whoſe corner he brake forth, was bound by ancient cuſtome to make the reſidue a dinner or banquet.

Among the *Chaonians*, there was a certain young Nobleman which loved a Virgin called *Anthippe*, the which two lovers were walking together a good ſeaſon in a Wood; It happened while they were there, that *Cichyrus* the Kings Son proſecuted a Pardal in hunting, which was fled into that Wood, and ſeeing him, bent his arm againſt him and caſt his Dart; the which Dart miſſed the mark and killed the Virgin *Anthippe*, the young Prince thought that he had ſlain the beaſt, and therefore drew neer on Horſe-back to rejoyce over the fall of the game, according to the manner of Hunters; but at his approach he found it far otherwiſe, for in ſtead of the effuſion of the bloud of a beaſt (that which was more lamentable) his right hand had ſhed the bloud of a Virgin: For when he came to them he ſaw her dying and drawing her laſt breath, and the young man held his hand in the wound to ſtanch the bloud: for ſorrow whereof he preſently fell diſtracted in his minde, and ran his Horſe to the top of a ſharp Rock, from whence he caſt down himſelf headlong and ſo periſhed.

The *Chaonians* after they underſtood this fearful accident, and the reaſon of it, compaſſed in the place where he fell with a wall, and for the honour of their dead Prince builded a City where he loſt his life, and called it *Cichyrus* after his own name.

Their love of Wine. Leopards and Panthers do alſo love Wine above all other drink, and for this cauſe both *Bacchus* was reſembled to them, and they dedicated to him: *Bacchum tauro aſſimilant & Pardali, quod homines ebrii belluarum iſtarum ingenia referant, & omnia violenter agant, quidam enim iracundi fiunt Taurorum inſtar, & pugnaces feriq; ut Pardales*, ſaith *Plato* in his ſecond Book of laws, they reſemble and compare *Bacchus* to a Bull, or Pardal, becauſe drunken men in all their actions do imitate the diſpoſition of theſe wilde beaſts, both in their folly and violence: For ſome of them are wrathful like Bulls, and ſome of them wilde apt to fight, like Pardals: *Bacchus* was alſo called *Nebrides*, becauſe he wore the skin of a Hinde-calf, which is ſpotted almoſt like a Panther: and therefore a fearful man, or a drunken, variable and inconſtant man, is ſaid to wear a skin of divers colours, but the chief cauſe why Panthers were dedicated to *Bacchus*, was for their love of Wine; for all Writers do conſtantly and with one conſent affirm, that they drink Wine unto drunkenneſs: the manner and end thereof is elegantly deſcribed by *Oppianus* in this ſort: When the Inhabitants of *Lybia* do obſerve ſome little fountain ariſing out of the ſand, and falling down again, (as in the manner of ſmall Springs which cannot encreaſe into great Rivers) whereat the Panthers and Pardals uſe to drink early in a morning, before it be light; after they have been at their prey in the night time, the Hunters come and pour twenty or thirty pitchers of old ſweet Wine into the ſaid Fountain; then a little way from it they lie down and cover themſelves with clothes, or with ſtraw, for there is no ſhelter either of tree or buſhes in that Countrey.

In the morning the Panthers ardently thirſting, and being almoſt dead for want of drink, come unto the ſame fountain, and taſting of the Wine drink thereof great aboundance, which preſently falleth to work upon their brains, for they begin firſt of all to leap and ſport themſelves, untill they be well wearyed, and then they lie down and ſleep moſt ſoundly, at which time the Hunters that lye in wait for them, come and take them without all fear or perill: Thus far *Oppianus*.

Uſe of their parts. Concerning the uſe of their ſeveral parts, I finde little among the ancients, except of their skins, for the foot-men and ancient Souldiers of the *Moores* did not only wear them for garments, but alſo ſlept upon them in the night time. The Shepheards of *Æthiopia*, called *Agriophagi* do eat the fleſh of Lions and Panthers, although it be hot and dry.

The Medicines of the Panther, or Leopard.

Avicenna.

Albertus.

If the skin or hide of a Leopard being taken and flead, be covered or laid upon the ground, there is ſuch force and vertue in the ſame that any venemous or poyſonſome Serpents dare not approach into the ſame place where it is ſo laid. The fleſh of a Panther being roaſted or boiled at the fire, and ſmelled by any one which is troubled with the Palſie, or ſhaking in the joynts, as alſo by them which are troubled with the beating and continual moving or turning of the heart, is a very profitable and excellent remedy for the ſame.

Raſis.

Arctem.

Galen.

The ſame fat or ſewet of a Leopard being mixed or mingled with the Oyl which proceedeth from the Bay-tree, and then mollified both together, and ſo anointed upon any one which is troubled with the ſcurfe or mangy, the ſcabs whereof doth cut or pierce the skin, doth preſently and without any grief or pain cure the ſame. The twigs of a Vine-tree being dryed and beaten into ſmall duſt or powder, and mingled together with the fat or greaſe of a Leopard, and ſo anointed upon the face of any one who is grieved with akings and ſwelling thereon, will not only cure and heal the ſame without any pain or ſorrow, but alſo preſerve the ſame free from blemiſhes in the time of healing. The greaſe alſo of a Leopard by it ſelf, being anointed upon the head of any one who doth ſhed or caſt his hair, or is troubled with the Foxes evill, doth immediately help and cure the ſame. The bloud of a Panther being anointed upon the veins or ſinews of either man or woman who is grieved with any ſwelling or akings therein, is very profitable and curable to expel the ſame away. The brains of a Leopard being mingled with a little quantity of the water which is called a Canker, and with a little Jaſmine, and ſo mixed together and then drunk, doth mitigate the pain or ach of the belly. The brains of the ſame beaſt being mixed with the juyce of a Canker, and anointed upon the genital of any man, doth incitate and ſtir him up to lechery, but the marrow which cometh from this beaſt, being drunk in Wine doth eaſe the pain or wringing of the guts and the belly. The gall of a Panther being received into the body either in meat or drink, doth inſtantly and out of hand kill or poyſon him which doth ſo receive it. The right ſtone of a Leopard being taken of a woman of a far ſpent age, doth reſtore unto her, her menſtrual purgation being ceaſed, and doth make her to purge, if ſhe doth heartily receive her meat more often.

Of the POEPHAGUS.

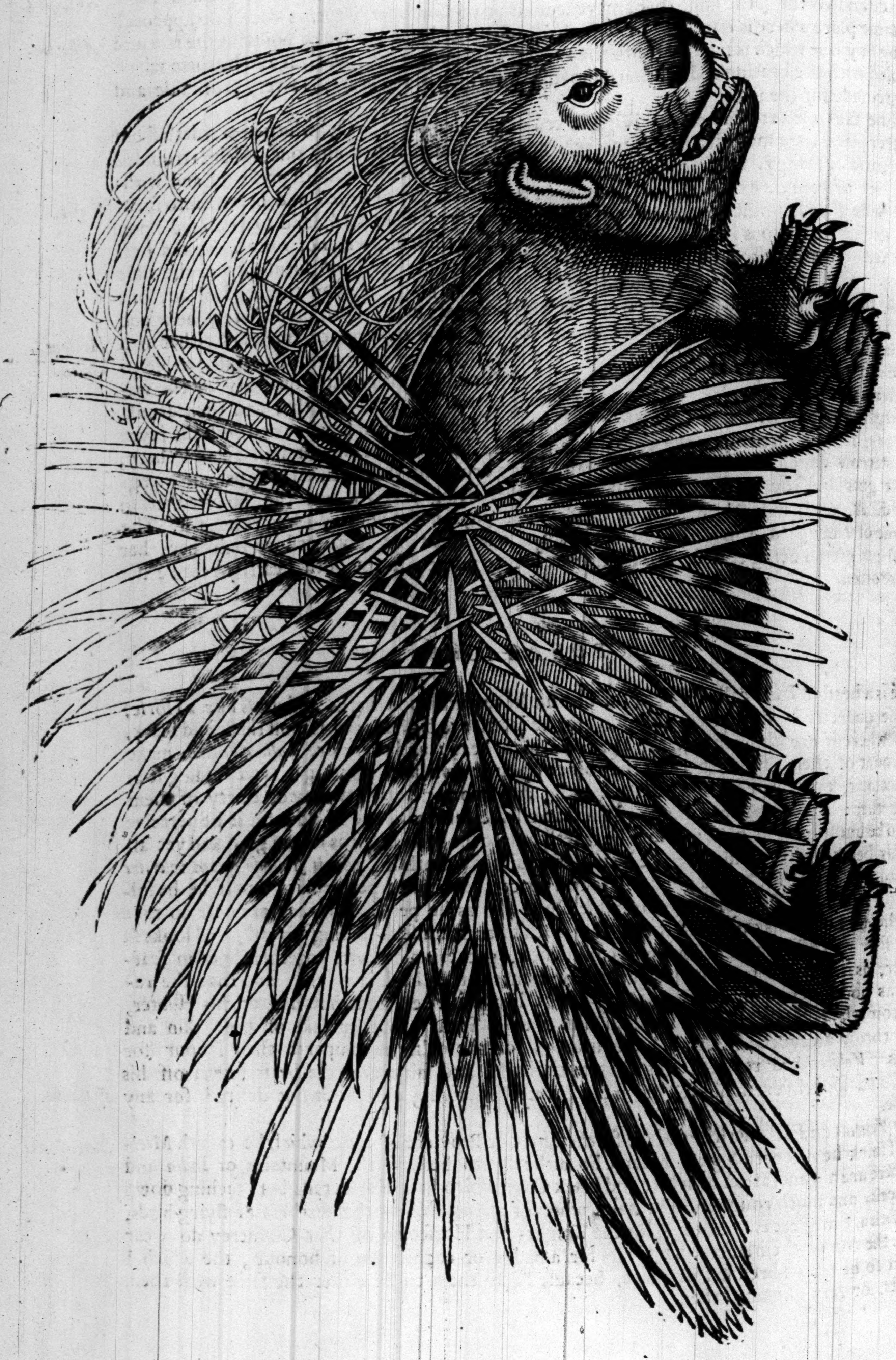
Ælianus.

There is a beaſt in *India* called *Poephagus*, becauſe he feedeth upon herbs and graſs like a Horſe, whoſe quantity he doth exceed double, for he is twice ſo big, his tail is moſt thick and black, the hairs whereof are thinner then the hairs of a mans head: and therefore *Indian* women make great account of them, for with them they binde up their own hair, platting it, and folding it in curious manner, every hair is two cubits in length, and upon one root twenty or thirty of them grow together: this great beaſt is one of the fearfulleſt creatures in the world; for if he perceive himſelf to be but looked at of any body, he taketh him to his heels as faſt as he can go, and yet although his heart be light, his heels be heavy, for ſaith my Author, *Magis ſtudioſe quam celeriter fugam peragit.* That is, He hath a good will to run apace, but cannot perform it: but if he be followed upon good ſwift Horſes, or with nimble Dogs, ſo as he perceiveth they are near to take him, and he by no means can avoid them, then doth he turn himſelf, hiding his tail, and looketh upon the face of the Hunter with ſome confidence, gathering his wits together, yet in fearful manner, as it were to face out his purſuer or hunter, that he had no tail, and that the reſidue of his body were not worth looking after: but while he ſtandeth ſtaring on his Hunter, another cometh behinde him and killeth him with a Spear, ſo they take off the skin and tail, and throw away the fleſh as unprofitable, for the other recompenſe their labour for their pains. *Volaterranus* relateth this a little otherwiſe, and ſaith that the beaſt biteth off his own tail, and ſo delivereth himſelf from the Hunter, knowing that he is not deſired for any other cauſe.

Æne. Silvi.

Nicolaus Venetus an Earl, writing of the furtheſt part or Province of *Aſia*, which he calleth *Macinum*, and I think he meaneth *Serica*, becauſe he ſaith it lyeth betwixt the Mountains of *India* and *Cathay*, there are a generation of white and black Oxen which have Horſes tails, but reaching down to their heels, and much rougher. The hairs whereof are as thin as the feathers of flying birds, theſe he ſaith are in great eſtimation; for the Knights and Horſemen of that Countrey do wear them upon the top of their lances and ſpears for a badge or cognizance of honour, the which I thought fit to be remembred in this place, becauſe I take them to be either the ſame with theſe *Indian* beaſts, or very like unto them.

The *Porcuſpine* or *Porcupine.*



The ſeveral names.

Bellonius.

I Cannot learn any name for this Beaſt among the *Hebrews*, and therefore by probability it was unknown to them: The *Grecians* call it *Acanthocoiros* and *Hyſtrix*, that is, *ſus ſetoſa*, a hairy, or briſtly, or thorny Hog, for their quils which they bear upon their back, are called both *Pili*, *ſetæ*, *villi*, *pinnæ*, *aculei*, and *ſpinæ*; that is, both hairs, briſtles, rough hair, pins, prickles, and thorns. The *Arabians* call it *Adaldull*, and *Aduaibul*; *Adabul*, *Adulbus*] and ſome *Aherha*, which by *Avicen* and his Gloſſographer, is defined to be *Montanus Ericius habens ſpinas ſagittales*, an Hedghog of the Mountain, having quils or thorns upon his back which he ſhooteth off at his pleaſure. The *Grecians* at this day call it *Scantocheros*, which is derived or rather corrupted of *Acanthocoiros*. The *Italians* call him *Porco-ſpinoſo* and *Hiſtrice* or *Iſtrice*, without an Aſpiration; the *Spaniards*, *Puercoeſpin*; the *French*, *Porc-eſpic*; the *Illyrians*, *Porſceſpino*, and *Morskeſwinia*, imitating therein the *Germans*, which call a Sea-hog, *Ein Meerſchwein*: The *Germans* in ſome places call it *Iarm*, and in other places *Dornſchwein*, that is a Thorny-hog, by a feigned name in imitation of other Nations, and alſo *Porcopick* following the *Italians*, *Spaniards*, *French*, *Engliſh*, and *Illyrians*: I will not ſtand to confute them, who write that this Beaſt is a Sea-beaſt, and not a Beaſt of the land, nor yet thoſe that make queſtion whether it be a kinde of Hedge-hog or not, for without all controverſie, as the *Arabians*, *Pliny*, *Albertus*, *Bellunenſis*, and other do affirm, the vulgar Hedge-hog, is *Ericius Sylveſtris*, and the Porcupine *Ericius Montanus*.

Bellonius.

Theſe are bred in *India* and *Africk*, and brought up and down in *Europe* to be ſeen for mony: Likewiſe about the City *Caſſem* in *Tartaria*, by the ſight of one of theſe it appeared, that it was three foot long, the mouth not unlike to a Hares, but with a longer ſlit or opening: ſo alſo the head of the ſame ſimilitude, the ears like to the ears of a man; the fore-feet were like the feet of a Badger, and the hinder-feet like the feet of a Bear; it hath a mane ſtanding up in the upper part right or direct but hollow or bending before: Upon the bunches of his lips on either ſide of his mouth, there groweth forth long black briſtles. The general proportion of his body is like a Swines, and they never exceed the ſtature of a Swine of half a year old.

The quils and ſpears.

The four formoſt teeth hang over his lips, and that which is moſt admirable in him, the Quills or Thorns growing upon his back in ſtead of hair, he uſeth for hands, arms, and weapons.

They firſt grow out of the back and ſides, which are of two colours', that is parly black, and partly white, which whenſoever he pleaſeth, he moveth to and fro like as a Peacock doth his tail: they grow in length two, three, or four hands breadths, they ſtand not in any confuſed order of colours, but in well formed diſtinguiſhed ranks, being ſharp at the points like a knife: When they are hunted the Beaſt ſtretcheth his skin, and caſteth them off, one or two at a time, according to the neceſſity upon the mouths of Dogs, or legs of the Hunters that follow her, with ſuch violence, that many times they ſtick into trees and Wood, wherefore *Solinus* writeth thus, and alſo *Paulus Venetus*; *Cum capiuntur, ſpinis ſuis ſæpe homines, & canes lædunt: nam canes in eos provocati, adeo irritant feras illas, ut ſimul concurrentes terga ſua quibus ſpinæ innituntur vehementer commoveant, atq; in viciniores homines, & canes vibrent.* That is to ſay, When they are taken they many times hurt both Dogs and men, for when the Dogs being provoked by them, run upon the backs which bear the quils, they are ſo far ſtirred, that they caſt them off upon all that ſtand near them, and therefore they fight flying.

The den and food.

The Hunters to ſave their Dogs do deviſe engins and traps wherein to take them; beſides the quills that grow upon their backs, they have alſo ſome upon their heads and necks, which they never caſt off, but keep them on as a Horſe doth his mane. The pilgrims that come yearly from Saint *James* of *Compoſtella* in *Spain*, do bring back generally one of theſe quils in their Caps, but for what cauſe I know not. The pace of this Beaſt is very ſlow and troubleſome unto it, and therefore it is hardly drawn out of his den, which it diggeth like a Badger, from which it never goeth far, but feedeth upon thoſe things which are near unto it: It is a filthy Beaſt, ſmelling ranck becauſe it liveth ſo much in the earth, being wilde it never drinketh, and I think it eateth Apples, Roots, and rindes of trees, and peradventures Snail, and ſuch reptile creatures, but being tamed, it eateth all kinde of fruit, likewiſe bread, Pie-cruſt, and ſuch things broken ſmall. It drinketh alſo water, but above all other, Wine mingled with water: In the day time it ſleepeth, and in the night time it waketh, by which we gather, that being wilde it feareth the light, and therefore travelleth in the night time for his meat and living. It is a general live creature, and begetteth other in his own kind: the female bearing the young ones in her belly, as long time as a Bear, that is, thirty days; and alſo it hideth it ſelf four moneths in the Winter time, like a Bear, but whether for cold or any other cauſe the Authors do not expreſs.

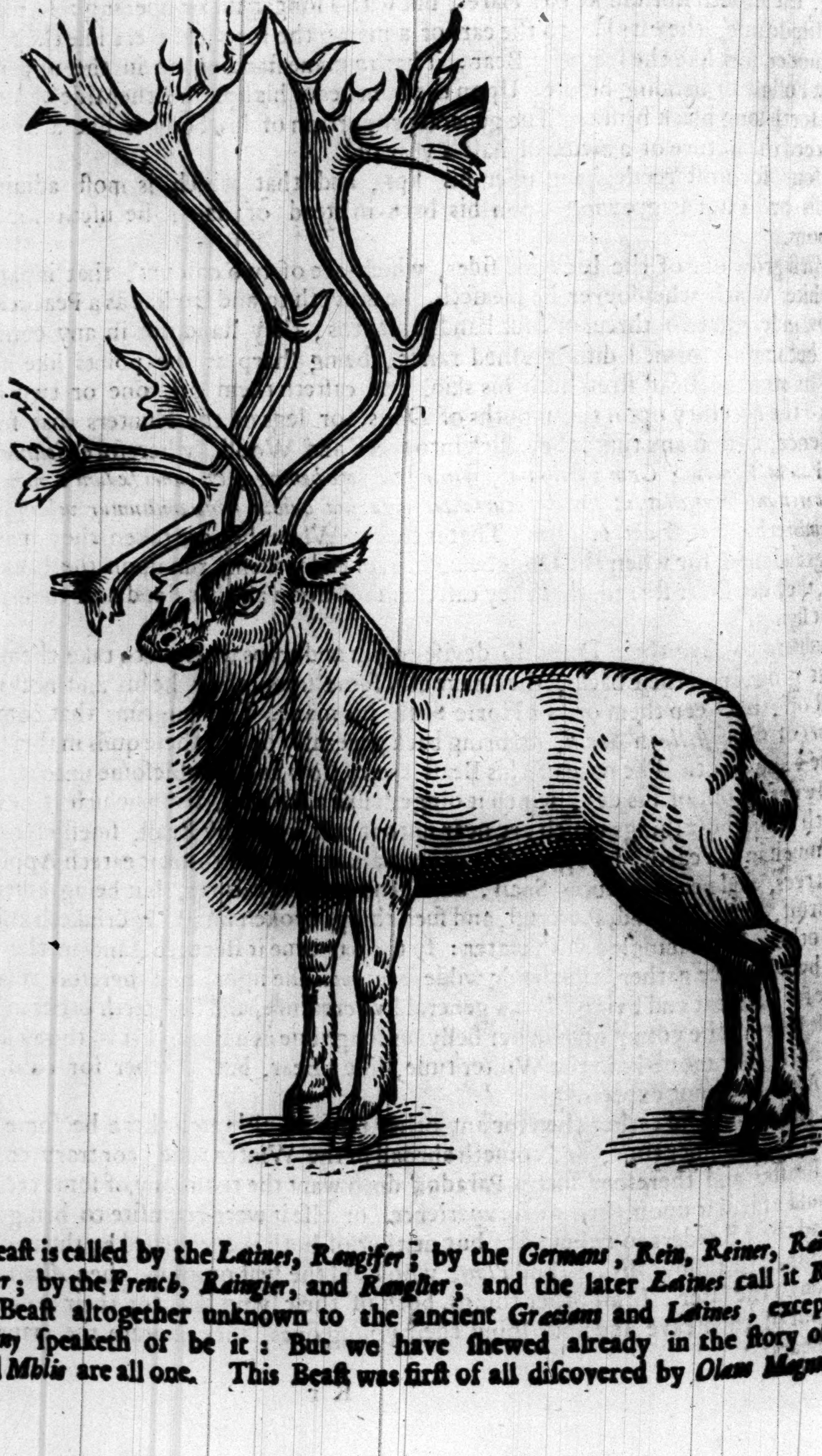
In my opinion for cold rather then for any other reaſon, although there be ſome that affirm it lyeth hid in the Summer time, and cometh abroad in the Winter time, contrary to the courſe of all other Beaſts, and therefore ſuch a Paradox doth want the teſtimony of ſome credible Writers, which ſhould affirm it upon their own experience, or elſe it were requiſite to bring ſufficient reaſons to lead their Readers to believe it, but neither of both is diſcharged by them, and therefore it is ſafer for us to follow *Ariſtotle* and *Pliny*, who hold the firſt opinion, then *Albertus* and *Agricola* who encline to the later. In all other things, both of their lying hid, of their procreation, of the comming out of their cave and nouriſhing their young ones, they imitate the manners and conditions of Bears.

Concerning the uſe of their parts, I finde none but only of their quils, for with them it is ſaid, if men ſcrape their teeth they will never be looſe, likewiſe women were wont in ancient time to uſe them for parting aſunder their hair in the top of their crowns.

The uſe of the fleſh, and other parts.

The fleſh of this Beaſt is like a Hedge-hogs, neither very natural for meat and nouriſhment, nor yet very medicinable: yet it is ſaid to help a weak and over-burthened ſtomach, to procure looſeneſs of the belly, and to diminiſh all Leproſies and ſcabbed Exulcerations and puſtules: Being ſalted it is is good againſt the Dropſie, and alſo very profitable, as *Platina* writeth, to be eaten by them that cannot contain urine in their beds: yet the *Græcians* attribute no ſuch quality unto this, but to help the ſtomach and looſen the belly, they attribute to the Sea-hog; and againſt the leproſie, ſcabs, and incontinency of urine to the Hedge-hog; but peradventure the ſaying of *Pliny*, (*Quæ de Herinaceis dicuntur omnia tanto magis valebunt in Hiſtrice*) leadeth them to attribute theſe things to the Porcuſpine. The powder of their quils burnt, drunk or eaten in meats or broth, doth promote and help conception: Thus ſaith *Avicen*, and herewithall I conclude this ſhort diſcourſe of the Hedg-hog.

Of the *Reyner*, or *Rainger*.



Of the ſeveral names.

THis Beaſt is called by the *Latines*, *Rangifer*; by the *Germans*, *Rein*, *Reiner*, *Rainger*, *Reinſstber*; by the *French*, *Raingier*, and *Ranglier*; and the later *Latines* call it *Reingus*. It is a Beaſt altogether unknown to the ancient *Græcians* and *Latines*, except the *Machlis* that *Pliny* ſpeaketh of be it: But we have ſhewed already in the ſtory of the Elk, that *Alces* and *Mhlis* are all one. This Beaſt was firſt of all diſcovered by *Olaus Magnus*, in this

Northern part of the world, towards the pole Artique, as in *Norway*, *Swetia*, *Scandinavia*, at the firſt ſight whereof he called it *Raingiſer*, *quaſi Ramifer*, becauſe he beareth horns on his head like the boughs of a tree. The ſimilitude of this Beaſt is much like to a Hart, but it is much bigger, ſtronger, and ſwifter. It beareth three orders or rows of horns on the head, as by the direction of *Valentinus Gravius*, and *Benedictus Martinus* are here expreſſed.

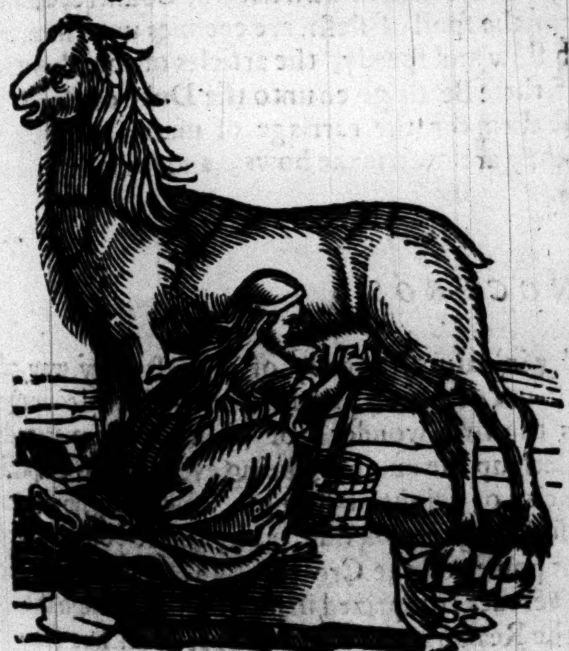
The colour and ſeveral parts.

This Beaſt changeth his colour according to the time of the year, and alſo according to the quality of the place wherein he feedeth, which appeareth by this, becauſe ſome of them are found to be of the colour of Aſſes, and ſhortly after to be like Harts. Their breaſt is full of long briſtles, being rough and rigid through the ſame. The legs hairy, and the hoofs hollow, cloven, and moveable, which in his courſe he ſpreadeth abroad upon the deepeſt ſnows, without preſſing his footſteps far into them: and by his admirable celerity he avoideth all the wilde Beaſts which in the Vallies lie in wait to deſtroy him. He beareth very high and lofty horns, which preſently from the root branch forth into two ſtems or pikes, I mean both the horns ſeverally into two, which again at the top diſperſe themſelves into pikes like the fingers of ones hand; In the middle of the horns there is a little branch ſtandeth out like a knob, or as a huckle in the hinder-part of a Beaſts leg, from thence again they aſcend upwards a great heighth, and do grow abroad at the top, where they are divided like the palm of a hand.

The horns are white, diſtinguiſhed with long apparent veins, differing both from the horns of Elks, and the horns of Harts, from Elks in height, and from Harts in breadth, and from them both in colour and multitude of branches: When he runneth he layeth them on his back, for when he ſtands ſtill, the loweſt branches coming forth of the roots of the horns, do almoſt cover his face with theſe lower branches.

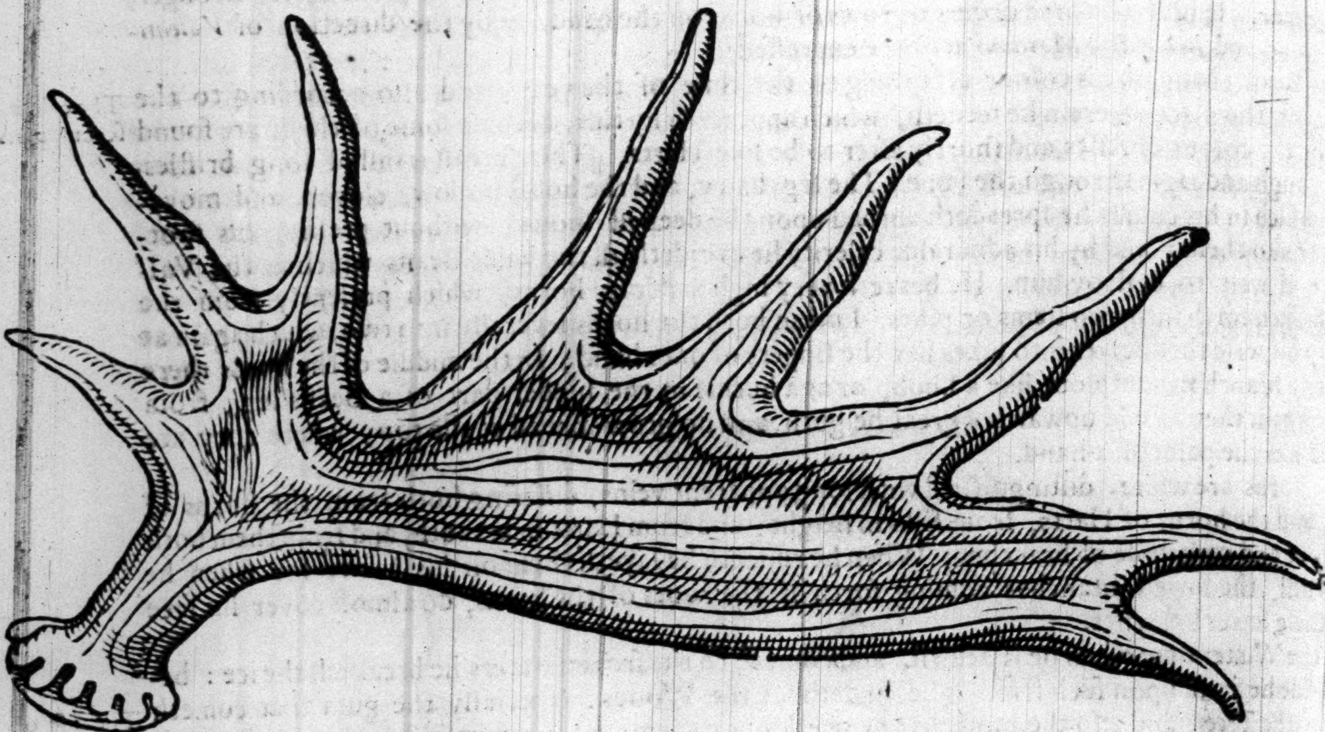
The uſe of their loweſt horns.

In the Winter time when he is athirſt, and cometh to the frozen waters he breaketh the ice: being wilde he liveth upon ſuch fruits as he findeth in the Woods, eſpecially the gum that cometh out of the Trees, and alſo the moſs that groweth upon them, making himſelf ſhadowed dens and reſting places in the Mountains: but in the deepeſt cold weather he cometh into the Mountains of *Norway*, towards *Moſiberg*, and other hills. He is taken by the Countrey people for private uſes, for he is profitable after he is tamed, both for the plough and travails in journies. The people called *Lappi*, or *Lappones*; do uſe them in ſtead of Horſes and Oxen, for they have a kinde of Cart made in form and faſhion of a fiſhers boat whereunto they join theſe Beaſts to draw them, and the Carter hath a convenient ſeat fitted for him on the fore-part thereof, wherein he ſitteth with his legs faſt tyed to the Cart, to the intent he be not caſt off when the Beaſt runs ſpeedily: he carryeth the reins whereby he governeth them in his left hand, and in his right hand a ſtaffe, wherewithall he ſuſtaineth the Cart, when it is in danger of falling, and in this courſe they will continue indeſatigably twenty *German* miles a day which is more then threeſcore *Engliſh* miles. At night when the Beaſts are unyoaked, of their own accord, without guide or leader they will go to their feeding places, or accuſtomed ſtables. It is a very ſociable creature, for they do live together in herds above a thouſand in a flock, whereunto it may be the Lord alluded in the 50. Pſalm, when he ſaid by the mouth of *Aſaph*, *All the Beaſts of the field are mine, and the flocks of thouſands which run wilde on the hills.* The females want horns, and their milk is the greateſt part of food to thoſe Northern people: they have been ſeen at *Auſpurge* in *Germany* ſadled and bridled, for in their travails they need not have any provender carryed with them, for if ye turn them out in the midſt of the Winter, they finde certain roots and moſs under the ſnow whereof they eat, and content themſelves. Their beſt food is graſs. They are uſed both in *Muſcovia*, *Polonia*, *Bohemia*, *Scandinavia*, and *Maſſovia*, yet they can endure no heat, for being brought into *Bohemia* they dy.



Their Carts which they draw muſt be made with a ſharp edge at the bottom like a boat or ſhip as we have ſaid already, for they are not drawn upon wheels, but like drays and ſleads upon the earth. There was a *Lapponian* which brought one of theſe into *Germany* in *December*, & he profeſſeth he never felt ſo much heat of the Sun in all his life, as he did at that time, which is our coldeſt time in the year, and therefore how great is the cold which both men and Beaſts endure in that Countrey?

The horns of theſe Beaſts are to be ſeen both in *Berne* and at *Auſpurge* in *Germany*; the feet are ſomewhat white, being rounder then a Harts feet, and more cloven or divided, wherefore at ſome times one part of his hoof may be ſeen upon a ſtone, while the other part reſteth upon the earth, and in the upper part of the hoof where it beginneth to be cloven near the leg, there is a certain thick skin or membrane, by vertue whereof the foot may be ſtretched in the diviſion without harm or pain to the Beaſt.



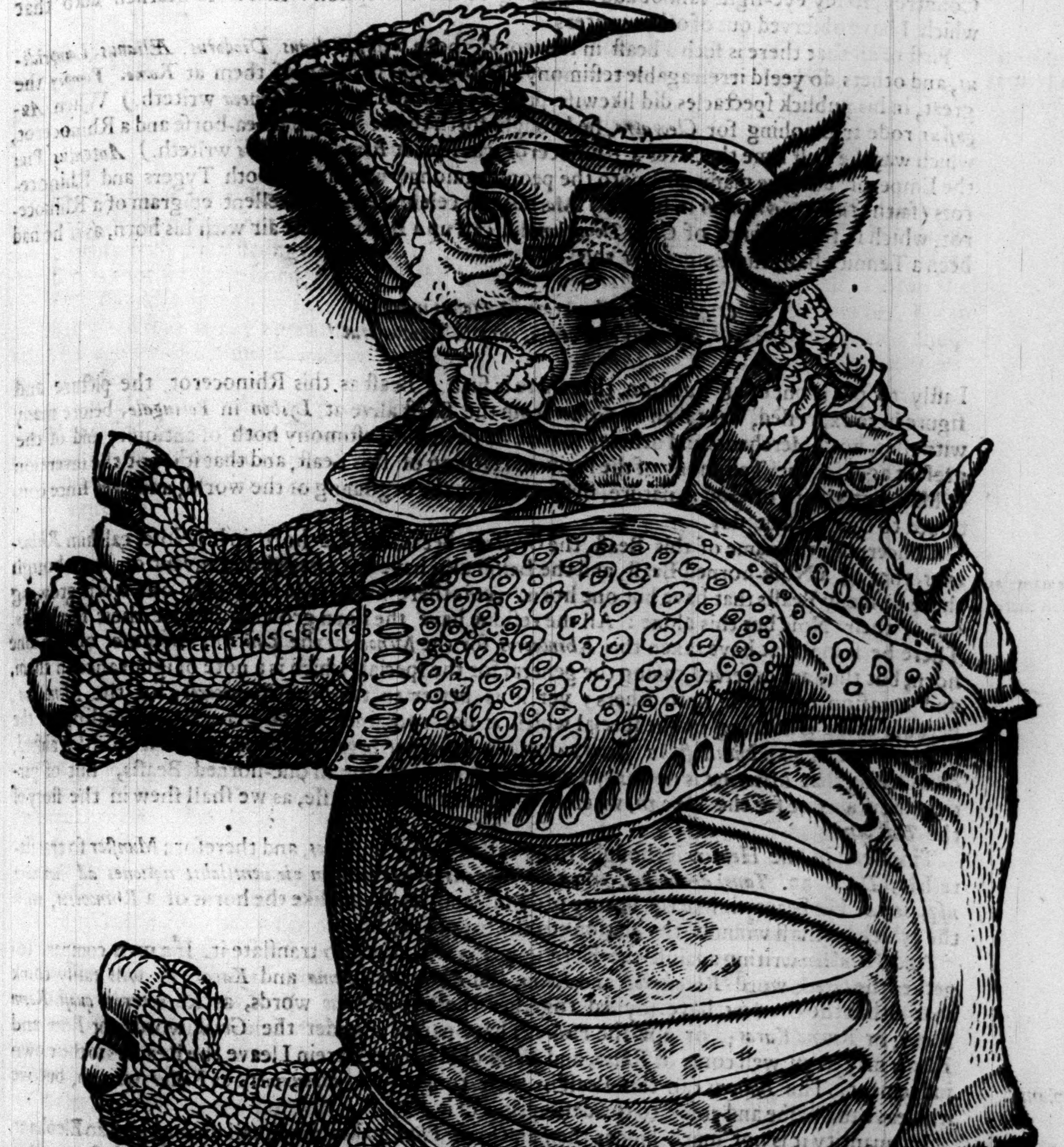
The King of *Swetia* had ten of them nouriſhed at *Lappa*, which he cauſed every day to be driven unto the Mountains into the cold air, for they were not able to endure the heat. The mouth of this Beaſt is like the mouth of a Cow, they many times come out of *Laponia* into *Swetia*, where they are wonderfully annoyed with Wolves, but they gather themſelves together in a ring, and ſo fight againſt their enemies with their horns. They are alſo in their own natural Countrey annoyed with Gulons, and generally all Beaſts that live upon the ſpoil of fleſh, are enemies unto them, and deſire to deſtroy and eat them. In their pace, both ſlow and ſpeedy, the articles of their legs make a noiſe like the cracking of Nuts. There was one of theſe Beaſts given unto the Duke of *Saxony*, in the year of our Lord 1561. In *Scandivania* they uſe them for the carriage of metals, drawing of Chariots and riding, and the nerves of them when they are dead make bows, and for want of nails, they do faſten planks and boards together.

Of the RHINOCEROS.

A preface to the ſucceeding ſtory.

WE are now to diſcourſe of the ſecond wonder in nature, namely of a Beaſt every way admirable, both for the outward ſhape, quantity, and greatneſs, and alſo for the inward courage, diſpoſition and mildeneſs. For as the Elephant was the firſt wonder, of whom we have already diſcourſed; ſo this Beaſt next unto the Elephant filleth up the number, being every way as admirable as he, if he do not exceed him, except in quantity or height of ſtature; And being now come to the ſtory of this Beaſt, I am heartily ſorry, that ſo ſtrange an outſide, as by figure you may perceive, yeelding no doubt through the Omnipotent power of the Creator, an anſwerable inſide, and infinite teſtimonies of worthy and memorable vertues comprized in it, ſhould through the ignorance of men, lie unfolded and obſcured before the Readers eyes: for he that ſhall but ſee our ſtories of the Apes, of the Dogs, of the Mice, and of other ſmall Beaſts, and conſider how large a treatiſe we have collected together out of many Writers, for the illuſtration of their natures and vulgar conditions, he cannot chuſe but expect ſome rare and ſtrange matters, as much unknown to his minde about the ſtory of this Rhinoceros, as the outward ſhape and picture of him, appeareth rare andadmirable to his eyes: differing in every part from all other Beaſts, from the top of his noſe to the tip of his tail, the ears and eyes excepted, which are like Bears. But gentle Reader, as thou art a man, ſo thou muſt conſider ſince *Adam* went out of Paradiſe, there was never any that was able perfectly to deſcribe the univerſal conditions of all ſorts of Beaſts; and it hath been the counſel of the Almighty himſelf, for the inſtruction of man, concerning his fall and natural weakneſs, to keep him from the knowledge of many divine things, and alſo humane, which is of Birds and Beaſts, Fiſhes and Fowl, that ſo he might learn the difference betwixt his generation, and his degeneration, and conſider how great a loſs unto him was his fall in Paradiſe; who before that time knew both God himſelf and all creatures; but ſince that time neither knoweth God as he ſhould know him, nor himſelf as he ſhall know it, nor the creatures as he did know then.

But



But for my part which write the *Engliſh* ſtory, I acknowledge that no man muſt look for that at my hands, which I have not received from ſome other: for I would be unwilling to write any thing untrue, or uncertain out of mine own invention; and truth on every part is ſo dear unto me, that I will not lie to bring any man in love and admiration with God and his works, for God needeth not the lies of men. To conclude therefore this Preface, as the Beaſt is ſtrange and never ſeen in our Countrey, ſo my eye-ſight cannot add any thing to the deſcription: therefore hearken unto that which I have obſerved out of other writers.

That there is ſuch a beaſt as the Rhinoceros.

Firſt of all that there is ſuch a beaſt in the world, both *Pliny*, *Solinus*. *Diodorus*, *Ælianus*, *Lampridius*, and others, do yeeld irrefragable teſtimony. *Heliogabalus* had one of them at *Rome*. *Pompey* the great, in his publick ſpectacles did likewiſe produce a Rhinocerot (as *Seneca* writeth.) When *Auguſtus* rode triumphing for *Cleopatra*, he brought forth to the people a Sea-horſe and a Rhinocerot, which was the firſt time that ever a Rhinocerot was ſeen at *Rome* (as *Cælius* writeth.) *Antonius Pius* the Emperor, did give many gifts unto the people, amongſt which were both Tygers and Rhinocerots (ſaith *Julius Capitolinus* in his life.) *Martial* alſo celebrateth an excellent epigram of a Rhinocerot, which in the preſence of *Cæſar Domitian* did caſt up a Bull into the air with his horn, as if he had been a Tennice ball, the Epigram is this;

O quam terribiles exarſit pronus in iras,
Quantus erat cornu, cui pila Taurus erat!

Laſtly to put it out of all queſtion, that there is ſuch a Beaſt as this Rhinocerot, the picture and figure here expreſſed, was taken by *Geſner* from the Beaſt alive at *Lysbon* in *Portugale*, before many witneſſes, both Merchants and others; ſo that we have the Teſtimony both of antiquity and of the preſent age, for the Teſtimony of the form and faſhion of this Beaſt, and that it is not the invention of Man, but a work of God in nature, firſt created in the beginning of the world, and ever ſince continued to this preſent day.

The name and reaſon thereof.

Concerning the name of this Beaſt, the *Grecians* becauſe of the horn in his Noſe, call him *Rhinoceros*, that is, a Noſe-horned Beaſt, and the *Latins* alſo have not altered that invention, for although there be many Beaſts that have but one horn, yet is there none that have that one horn growing out of their Noſe but this alone: All the reſidue have the horn growing out at their foreheads. There be ſome that have taken this *Rhinoceros* for the *Monoceros* the *Unicorn*, becauſe of this one horn, but they are deceived, taking the general for the ſpecial, which is a note of ignorance in them, and occaſion of errour unto others; yet it is better to take the *Rhinoceros* for the *Monoceros*, becauſe there is nothing in the ſpecial which is not contained in the general, according to the maxime in Logick, *Nihil eſt in ſpecie, quod non prius fuit in genere*: And yet that is alſo abſurd, conſidering that *Monoceros* is not only a word of generality for all one-horned Beaſts, but of particularity a name for the *Unicorn*, whereby is meant the *Indian* Aſſe, as we ſhall ſhew in the ſtory of the *Unicorn*.

This Beaſt in the *Hebrew* is thought to be called *Reem*, or *Karas*, and therefore *Munſter* ſo tranſlateth it, *Deut.* 33. *Tauri decor ejus, cornua Rhinocerotis cornua ejus, in eis ventilabit nationes ad ſummum uſq; terræ.* His beauty is like the beauty of a Bull, and his horns like the horns of a *Rhinocerot*, with the which he ſhall winnow the Nations to the tops of the hils.

And *Tertullian* writing againſt the Heretique *Praxeas*, doth ſo tranſlate it. If a man compare together the *Greek* word *Rhinoceros*, and *Reem*, and *Karas*, or *Rimna* and *Karas*, he will eaſily think that either the *Grecians* have joyned together the two *Hebrew* words, as *Rhinoceros quaſi Reem Karas*, or *Rimna Karas*; or elſe the *Hebrews* have parted aſunder the *Greek* word, for *Reem* and *Rimna* may very well come of *Rhino*, and *Karas* of *Keros*, yet herein I leave the Readers to their own judgement. The *Indians* call this Beaſt in their tongue, *Scandabenamet*, as *Feſtus* writeth, but we will leave the name and come to the deſcription of it.

Oppianus.

The quantity and ſeveral parts.

In quantity it is not much bigger then an *Oryx*: *Pliny* maketh it equall in length to an Elephant, and ſome make it longer then an Elephant, but withall they ſay it is lower, and hath ſhorter legs. *Strabo* in his 16. book ſpeaking of the *Ethiopian* Region, neer *India*, called theſe *Rhinocerots*, *Æthiopian* Buls, and ſaith that they are bred only in that Countrey, and by the relation of *Artemidorus* he writeth thus; *Outoi de micron apoleipontai ton elephantoon oi rinokerotes, oſper Artemidoros pheſi, epi ſeirau, to mekei, kai per eorakenai pheſas en Alexandria, alla ſchedon ti oſoon to upſei apogetou aph' [illegible] authentos, &c.* That is to ſay, The *Rhinocerotes* are exceeded by the Elephants in length, but in height they almoſt equall them (as *Artemidorus* ſaid) he ſaw by one that was at *Alexandria*, and the colour thereof was not like a Box-tree, but rather like an Elephants, his quantity greater then a Buls, or as the greateſt Bull, but his outward form and proportion like a wilde Boars, eſpecially in his mouth, except that out of his Noſe groweth a horn, harder then any bones, which he uſeth in ſtead of armes, even as a Boar doth his teeth; he hath alſo two girdles upon his body like the wings of a Dragon, coming from his back down to his belly, one toward his neck or mane, and the other toward his loins and hinder parts. This far *Strabo*.

Whereunto we may add the deſcription of other parts out of *Oppianus*, *Pliny*, and *Solinus*. His colour like rinde or bark of a Box-tree (which doth not differ much from an Elephant) and on his forehead there grow haires which ſeem a little red, and his back is diſtinguiſhed with certain purple ſpots upon a yellow ground. The skin is ſo firme and hard, that no Dart is able to pierce it:

and upon it appear many diviſions, like the ſhels of a *Tortoiſe* ſet over the skales, having no hair upon the back. In like manner, the Legs are ſcaled down to the hooves, which are parted into four diſtinct clawes; upon his noſe there groweth a hard and ſharp horn, crooking a little towards the crown of his head, but not ſo high: flat and not round, ſo ſharp and ſtrong, *Ut quicquid impetiret, aut ventilet, aut perforet, & ferrum etiam & ſaxa tranſigat*, ſaith *Oppianus* and *Ælianus*, that is, whatſoever it is ſet to, either it caſteth it up into the air, or elſe boreth it through though it be iron or ſtones.

Eucherius ſaith, that the *Rhinocerot* hath two horns in his noſe, but that is utterly falſe, as you may ſee in the picture: Although *Martial* ſeem to expreſſe ſo much in theſe Verſes;

Namq; gravem cornu gemino ſic extulit urſum,
Jactat ut impoſitas Taurus in aſtra pilas.

The *Rhinocerot* caſt up a Bear into the air, even as a Bull would do a ball which were laid upon his two horns: we ſhall not need to apply *Gemino cornu* to the Bull, as *Politianus* doth, but rather take it figuratively for a ſtrong horn; and if it muſt needs be literal, it is apparent by the Picture that there is another little horn, not upon the noſe, but upon the wither of the Beaſt, I mean the top of his ſhoulder next to his neck, ſo that the error of *Eucherius* lyeth not in the number, but in the place; and that it may appear that this horn is not a faigned thing, *Pauſanias* above two thouſand year ago writeth thus. *Rhinoceroti in ſummo naſo cornu ſingulare eſt, & aliud ſupra ipſum non magnum, in capite nullum.*

I do marvel how it came to paſſe that men which can mock and deride others cunningly ſhould be called proverbially *Naſuti homines*, except the proverb were taken from the *Rhinoceros*, who by reaſon of his crooked horn is ſaid to have a crooked noſe; for indeed a deformed noſe is more ſubject to deriſion then any other part or member of the body, which cauſed *Martial* to write thus:

Majores nunquam rhonchi: juveneſq; ſeneſq;
Et pueri naſum Rhinocerotis habent.

And thereupon *Horace* alſo ſaith thus;

——*Naſo ſuſpendis adunco.*

Oppianus ſaith, that there was never yet any diſtinction of ſexes in theſe *Rhinocerotes*: for all that ever were found were males and not females; but from hence let no body gather that there are no females, for it were impoſſible that the breed ſhould continue without females, and therefore *Pliny* and *Solinus* ſay, that they engender or admit copulation like Elephants, Camels, and Lions.

When they are to fight they whet their horn upon a ſtone, and there is not only a diſcord betwixt theſe beaſts and Elephants for their food, but a naturall deſcription and enmity: for it is confidently affirmed, that when the *Rhinocerot* which was at *Lisborne*, was brought into the preſence of an Elephant, the Elephant ran away from him. How and in what place he overcometh the Elephant, we have ſhewed already in his ſtory, namely how he faſteneh this horn in the ſoft part of the Elephants belly. He is taken by the ſame means that the *Unicorn* is taken, for it is ſaid by *Albertus*, *Iſidorus*, and *Alunnus*, that above all other creatures they love Virgins, and that unto them they will come be they never ſo wilde, and fall aſleep before them, ſo being aſleep, they are eaſily taken and carried away.

All the later Phyſitians do attribute the virtue of the *Unicorns* horn to the *Rhinocerots* horn, but they are deceived by imitation of *Iſidorus* and *Albertus*: for there is none of the antient *Grecians* that have ever obſerved any medicines in the *Rhinocerot*. The *Indians* make bottles of their skins, wherein they put their *Lycion*, or *ſuccum medicatum*, and therefore I will conclude this ſtory, with the riddle of *Franciſcus Niger* made upon the excellency of the horn that groweth upon the noſe.

Dic mihi quæ ſuperis ſint acceptiſſima dona.

Whereunto the anſwer is made in the next Verſe:

Principium naſi Rhinocerotis amant.

Of

Of the SHEEP.

The ſeveral names.

THe *Hebrews* have divers names, whereby they ſignifie a Sheep, and all that kind, as *Zon*, and *Zoneth*, for which the *Septuagints* do always render *Probata*, Sheep or little Cattell. The *Arabians*, *Genas*. The *Chaldeans*, *Ana*. The *Perſians*, *Goſpand*, alſo *Rachel* in *Hebrew*; the plural whereof is *Rechelim*, which ſignifieth Sheep: *Kebeſch*, and *Kabſa*, or *Kibſa*, Iſa. 53. *Tabel*, *Nebelamab*, that is, a dumb Sheep, where the *Hebrews* have *Rachel*, there the *Chaldes* tranſlate *Rachlak*. The *Arabians*, *Akalak*. The *Perſians*, *Comeſchan thu*. *Kebes* and *Kibſa* ſignifie a Sheep, male and female under a year old, and *Aiil*, and *Eel*, for a Sheep above a year old, male and female. In Levit. 22. the *Chalde* tranſlateth for *Kebii*, *Imar*. The *Arabians*, *Egel*. The *Perſians*, *Bara*, and *Keſeb* in *Hebrew* is the ſame that *Kebeſch*. *Seh* alſo ſignifieth a Sheep, although it be ſometime taken for a Lamb or Kid. Likewiſe *Thaleb* and *Theleb* Eſai. 40. ſignifieth a Lambe that ſucketh. And *Epiphanius* writeth, that by the ſame word the *Hebrew* Aſtronomers ſignifie the ſign *Aries* in the *Zodiack*. The *Sarazens* at this day call a Sheep *Ganeme*, and Cattle *Garien*, and the dung of Cattle *Hara Garien*. The *Grecians* call a Sheep *Oiis*, and *Probaton*; the *Latins Ovis*, and by excellency *Pecus*; the *Italians*, *Pecora*, the *French*, *Brebis*; the *Spaniards*, *Oveia*; the *Germans*, *Schaff*; the *Tyrians*, *Owcze*, or *Skop*. Theſe and ſuch like I might add more concerning the names of this Beaſt, and the aboundance of the names thereof in the *Hebrew* tongue, is a notable teſtimony of the ſingular account which God himſelf made of this beaſt. The *Latines* have ſo honored it that after it they have named many of their children, and ſtories make mention of moſt noble and gallant men, ſo called. Such was *Ovinius Camillus*, *Severus Ovinius*, *Fabius Maximus Oviculus*, *Oilecus*, *Oileus Ajax*, *Oie*, the wife of *Charhippus*; and many ſuch other, if it were neceſſary to this ſtory to relate them, but I will not trouble the Reader with any ſuch unneceſſary circumſtances. I will therefore firſt of all begin with a relation of the Sheep of other Countries, and ſo in the end make a more particular diſcovery of our own at home. For the difference of Regions do very much enlighten the deſcription or hiſtory of Sheep. It is reported that about *Erythrea*, one of the Iſlands of the *Gades*, there is ſuch aboundance of good paſture and Hearbs ſo gratefull to Sheep, that if they be not let bloud once in thirty dayes, they periſh by ſuffocation, and that the milk of thoſe Sheep yeeldeth no whay, wherewithall they make abundance of Cheeſe, although they powre water into it. The herbage of that Iſland is dry, yet profitable to Cattle and milch Beaſts, and from thence came the original of the fat Cattel of *Geryon*. The Sheep of *Grecia* are leſſer then the Sheep of *Egypt*; and the *Ovis Pyrrhicæ*, were like *Boves Pyrrhicæ*, namely, of exceeding ſtature, which name was derived from *Pyrrhus* their maſter and owner. Among the *Pſilliani* in *India*, their Rams are greater then our Lambs, and *Aechilades* in his books of husbandry affirmeth, that the Sheep of the Iſle *Chius*, are very ſmall, and yet their Milk maketh very laudable Cheeſe. In *Spain* their beſt Sheep have black fleeces: at *Polentia*, neer the *Alpes*, they are gray or hony-woolled: in *Aſia* and *Bœtica*, called *Erythrea*, they are red like Foxes, and from thence came the term of *Erythreæ Oves*. At *Canuſium* the Sheep are yellow, or Lion-tauny, and ſo alſo at *Tarentum*. *Iſtria* and *Liburnia* yeeld Sheep having wooll which is ſo courſe and rough, that it may rather ſeem to be hair then wooll, and therefore never fit for fine garments, nor for any other uſe, except by the ſingular art of ſpinning in *Portugal*. And the like to this is the wool of the Sheep of *Piſcenæ*, and in *Egypt*, of which latter it is ſaid, that if it be dyed again after it is thread-bare, it will endure almoſt for ever. For the antients (as *Homer* writeth) had the uſe hereof (although the thread were rough) in their works of Tapeſtry, and this was dreſſed divers wayes, for the *French* in *Europe* dreſſe it one way, and the *Parthians* in *Aſia* another way.

The deſcription of dives kinds ot Sheep according to their Country.
Strabo.

The Sheep of *Apulia* gave the name to *Lana Italica*, for excellent wool, and yet was it ſhort and courſe, good for nothing but for clokes to ride in, and wear in rainy weather: unto theſe I may add the *Calabrian*, *Mileſian*, and *Arentinian* Sheep, yet in the dayes of *Varro* they covered their Sheep with other skins to keep the Wool both from loſſe, and other infection, ſo that it might be the better waſhed, dyed and prepared, for theſe were nouriſhed moſt of all in houſes.

The *French* Sheep about *Altinas*, and alſo thoſe that are ſcabbed are folded in the plain and barren fields of *Parma* and *Mutina*. The Sheep of *Helvetia* feed in the tops of the Mountains, whiles the Goats keep beneath among the trees and gather fruits on the ſides of the hils. The *Flemmiſh* Sheep have a ſoft and curled hair.

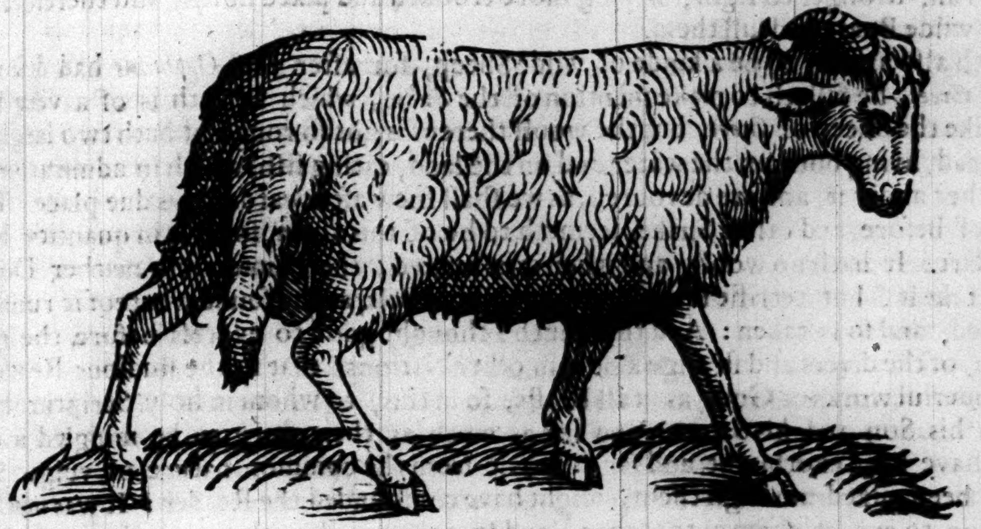
There be in general two kinds of Sheep, one called *Tectum*, the other *Colonicum*, as if you would ſay houſe-ſheep, and field-ſheep; for the *Grecian* Sheep which before we have called *Tarentinæ*, and were alſo called *Tarintinæ*, becauſe of their ſoft wool, lived in houſes, and they were alſo called *Pellitæ*, but the field ſheep having by nature a greater, courſer, and rougher hair, are ſuffered to lodge abroad in the fields.

Likewiſe the Sheep of *Miletum* and *Attica*, and the region *Gadilonea*, reaching to *Armenia*, have very ſoft and gentle wool, which thing ſeldom cometh to paſſe in *Pontus*, or *Cappadocia*. In *Scotland* alſo in a place thereof, called by *Hector Beothius Buthugubania*, are great ſtore of Sheep, bearing good wool, from whence almoſt all that Countrey fetch their breed. The Sheep of *Ethiopia* bear no wool at all, but in ſtead thereof their hair is rough like Camels hair. Amongſt the *Abidenes*, and the *Beudiani* both *Ælianus* and *Nicomachus* the Son of *Ariſtotle* do teſtifie, that all their Sheep are black, and that there was never white Sheep bred in thoſe Countries. In *Gortynis* their Sheep are red and have four horns: In the fortunate Iſlands of the red-ſea all their Sheep are white, and none of them have crooked horns. In *Beotia* there are four Rivers which work ſtrange effects upon Sheep after they drink of them; namely, *Melas*, *Cephiſus*, *Penius*, and *Xanthus*. The Sheep drinking of *Melas* and *Penius* grow black, of *Cephiſus* white, and yet *Pliny* ſaith, that this River cometh forth from the ſame fountain that *Melas* doth. They which drink of *Xanthus* grow red: I might adde hereunto another ſpecial obſervation of difference betwixt the Sheep of *Pontus* and *Naxus*, for in *Pontus* they have no gaul, and in *Naxus* they have two gauls.

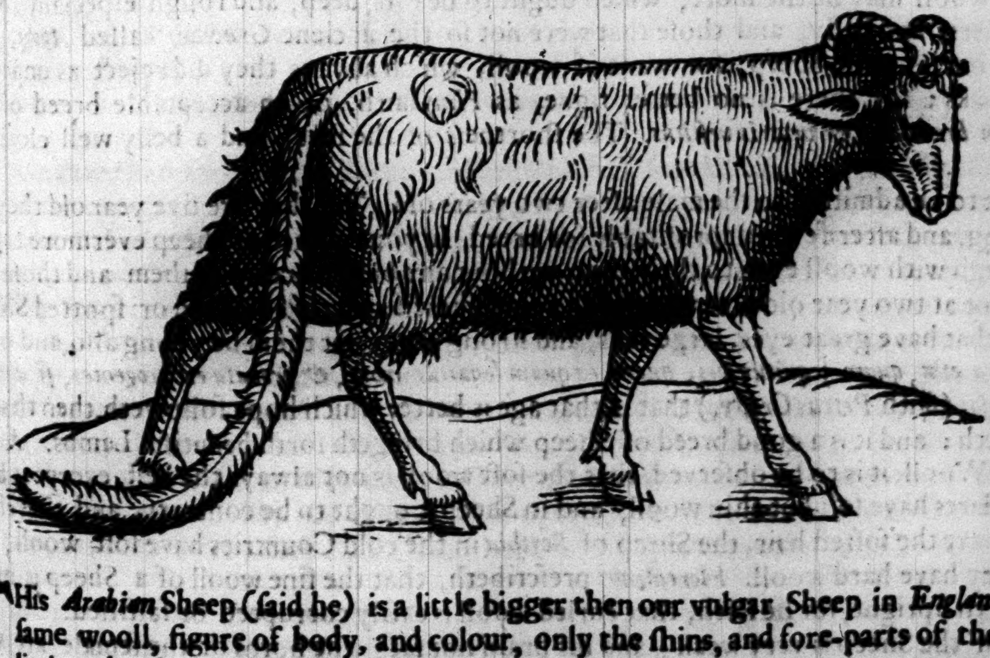
In ſome parts of *India* their Sheep and Goats are as big as Aſſes, and bring fourth four Lambs at a time, but never leſs then three, both Sheep and Goats. The length of their tails reacheth down to their hinder-legs, and therefore the Shepheards cut them off by the ſecrets, to the intent that they may better ſuffer copulation, and out of them being ſo cut off, they expreſs certain Oyl; alſo they cut aſunder the tails of Rams, the ends whereof do afterwards cloſe ſo nearly and naturally together, that there appeareth not any ſcar or note of the ſection. In *Syria* and *India*, the tails of their Sheep are a cubit broad.

There are two kinde of ſheep in *Arabia*, which are diſtinguiſhed by the length and breadth of their tails: the one ſort have tails three cubits long, by reaſon whereof they are not ſuffered to draw them on the ground for fear of wounding; and therefore the ſhepheards deviſe certain engins of wood to ſupport them: the other kinde of ſheep have tails like the *Syrian* ſheep. All ſheep that live in hot and dry Regions have larger tails, and harſher wooll, but thoſe that live in the moiſt Regions and ſalt places, have ſofter wooll and ſhorter tails. There were two of the *Arabian* Sheep brought into *England*, about the year 1560. whoſe pictures were taken by Doctor *Cay*, and therefore I have expreſſed them here with their deſcription.

The Arabian *Sheep with a broad tail.*



The Arabian *Sheep with a long tail.*



The deſcription of the *Arabian* ſheep.

THis *Arabian* Sheep (ſaid he) is a little bigger then our vulgar Sheep in *England*, but of the ſame wooll, figure of body, and colour, only the ſhins, and fore-parts of their face, are a little red: the broad tail in the top was one cubit, but lower it was narrower, and like the end of a vulgar Sheeps tail. They being brought on ſhip-board into *England*, were taught through famine and hunger to eat not only graſs and hay, but fleſh, fiſh, bread, cheeſe, and butter.

Herodotus ſaith, that ſuch kinde of Sheep are no where found but in *Arabia*: the long tailed Sheep he calleth *Macrokercos*, and the broad tailed Sheep *Plateukercos*: yet *Leo Afer* ſaith, that theſe are of the *African* Sheep, for thus he writeth: *His arietibus nullum ab aliis diſcrimen eſt, præterquam in cauda quam latiſſimam circumferunt, quæ cuiq; quo opimior eſt, craſſior obtigit, adeo ut nonnullis libras decem, aut vigintipendat, cum ſua ſponte impinguantur.* There is no difference betwixt theſe Rams and other, except in their broad tail, which evermore as it grows in fatneſs groweth in breadth, for if they fat of their own accord, it hath been found that the tail of one of theſe Sheep have weighed ten or twenty pound, and not only there, but alſo in *Egypt*, where they cram and feed their Sheep with Barly, Corn, and Bran: by which means they grow ſo fat, that they are not able to ſtir themſelves, ſo that their Keepers are forced to deviſe little engins like childrens Carts, whereupon they lay their tails when they remove their Beaſts: and the ſame *Leo Afer* affirmeth, that he ſaw in *Egypt* in a Town called *Aſiota*, ſtanding upon *Nilus*, a hundred and fifty mile from *Alcair*, a tail of one of theſe Sheep that weighed fourſcore pound, and whileſt he wondred at it, ſcarcely believing that which his eyes ſaw, there were ſome preſent, that affirmed it to be an ordinary thing, for they ſaid according as he writeth; *Se vidiſſe quæ ſemi ducentas libras expendiſſent*: That is, they had ſeen ſome of them weigh a hundred pounds: and except in the Kingdom of *Tunis* in *Africk*, and *Egypt*, there are none ſuch to be found in all the world, and by it, it appeareth, that all the fat of their bodies goeth into their tails. Among the *Garamants* their Sheep eat fleſh and milk, and it is not to be forgotten which *Ariſtotle*, *Dionyſius*, *Afer*, and *Varro* do write, namely, that all Sheep were once wilde, and that the tame Sheep which now we have, are derived from thoſe wilde Sheep, as our tame Goats, from wilde Goats: and therefore *Varro* ſaith, that in his days in *Phrygia* there were flocks of wilde Sheep, whereof as out of *Africk*, and the Region of the *Gadites*, there were annually brought to *Rome* both males and females, of ſtrange and admirable colours, and that his great Uncle bought divers of them and made them tame: But it appeareth that theſe wilde Sheep or Rams were Muſmons, of which we ſhall diſcourſe afterwards: For wilde Sheep are greater then the tame Sheep, being ſwifter to run, ſtronger to fight, having more crooked and piked horns, and therefore many times fight with wilde Boars and kill them.

Flocks of wilde ſheep.

Oppianus.

The *Subus* doth alſo appear to be a kinde of wilde Sheep, for after that *Oppianus* had diſcourſed of the Sheep of *Creet*, he falleth to make mention of the *Subus*, which he ſaith is of a very bright yellow colour like the Sheep of *Creet*, but the wooll thereof is not ſo rough, it hath two large horns upon the fore-head, living both on the water and on the land, eating fiſh, which in admiration of it in the water gather about it, and are devoured, as we ſhall ſhew afterwards in his due place. The *Colus* alſo ſpoken of before, and called Snake, ſeemeth to be of this kinde, for it is in quantity betwixt a Sheep and a Hart. It hath no wooll, and when it is hunted, the Hunters uſe neither Dogs nor other Beaſts to take it, but terrifie it with ringing of little bels, at the ſound whereof it runneth to and fro diſtracted, and ſo is taken: And thus much I thought good to expreſs before the general nature of Sheep, of the divers and ſtrange kindes in other Nations, that ſo the ſtudious Reader may admire the wonderful works of God, as in all Beaſts, ſo in this, to whom in holy Scripture he hath compared both his Son and his Saints: and for as much as their ſtory to be mingled with the others, would have been exorbitant and far different from the common nature of vulgar Sheep, and ſo to have been mixed amongſt them, might have confounded the Reader: It was much better in my opinion to expreſs them al together, and ſo to proceed to the particular nature of vulgar Sheep.

The ſeveral parts of ſheep.

And firſt of all the deſcription of their outward parts: the Sheep ought to be of a large body, that ſo their wooll may be the more, which ought to be ſoft, deep, and rough, eſpecially about the neck, ſhoulders, and belly, and thoſe that were not ſo the ancient *Græcians* called *Apoki*, the *Latines*, *Apiſe*, that is, peild Sheep, for want of wooll, which always they did reject as unprofitable for their flocks: for there is no better ſigne, as *Pliny* ſaith, of an acceptable breed of Sheep, *Quam crurium brevitas, & ventris veſtitus.* The ſhortneſs of the legs, and a belly well clothed with Wooll.

The female to be admitted to the male after two years old. Till they are five year old they are accounted young, and after ſeven unprofitable for breed. In your choice of Sheep evermore take thoſe which are rough with wooll even to their eyes, without any bald place upon them, and thoſe females which bear not at two year old utterly refuſe, avoid likewiſe partly coloured or ſpotted Sheep, but chooſe them that have great eyes, large tails, and ſtrong legs: let them be young alſo, and of breed, *Nam melior eſt ea ætas, quam ſequitur ſpes, quam ea quam ſequitur mors, & probata eſt progenies, ſi agnos ſolent procreare formoſos* (ſaith *Petrus Creſce.*) that is, that age is better which hope followeth, then that which death followeth: and it is a good breed of Sheep which bringeth forth beautiful Lambs. And concerning their Wooll, it is to be obſerved, that the ſoft wooll is not always the beſt, except it be thick withall, for Hares have ſoft but thin wooll, and in Sheep it ought to be contrary, and therefore the moſt fearful have the ſofteſt hair, the Sheep of *Scythia* in the cold Countries have ſoft wooll, but in *Sauromatia* they have hard wooll. *Florentinus* preſcribeth, that the fine wooll of a Sheep is not curled, but ſtandeth upright, for he ſaith, that curled wooll is eaſily corrupted or falſified.

The head of the Sheep is very weak; and his brain not fat; the horns of the female are weak if they have any at all, for in many places they have none, like Hindes, and in *England* there are both males and females that want horns: And again the Rams of *England* have greater horns then any other Rams in the world, and ſometimes they have four or ſix horns on their head, as hath been often ſeen. In *Africk* their male-ſheep or Rams are yeaned with horns, and alſo their females: and in *Pontus* neither males nor females have ever any horns.

Their eyes ought to be great, and of a wateriſh colour, and all Beaſts that want hands have their eyes ſtanding far diſtant on their heads, eſpecially Sheep, becauſe they had need to look on both ſides, and becauſe they are of a ſimple and harmleſs diſpoſition, as we ſhall ſhew afterwards: for the little eye, ſuch as is in Lions and Panthers, betoken craft and cruelty; but the great eye, ſimplicity and innocency. Their teeth ſtand in one continued row or bone, as in a Horſe, but in the upper chap there are no fore-teeth: the male having more teeth then the female.

There be ſome that write, that *Virgil* calleth Sheep *Bidentes*, becauſe they have but two teeth, but they do it ignorantly, for we may read in *Servius*, *Nigidius* and *Nonius*, that Boars are called *Bidentes*, and all Beaſts of two years old, for they were firſt of all called *Bidennes quaſi Biennes*, by interpoſition of the letter D. according to the other words, as we do not ſay *reire*, but *redire*; nor *reamare*, but *redamare*; nor *rearguere*, but *redarguere*; and ſo *Bidennis*, for *Biennis*; becauſe ſacrifices were wont to be made of Sheep when they were two years old. If ever it happen that a Sheep have but two teeth, it is held for a monſter, and therefore a Sheep is called *Ambidens*, and *Bidens*, becauſe he hath teeth both above and beneath. The belly of a Sheep is like the belly of a Beaſt that chews the cud. The milk proceedeth from the ventricle or maw. The ſtones hang down to the hinder-legs. The females have their udders betwixt their thighes, like to Goats and Cows: ſome of them have galls, according to the ordinary cuſtom of nature, and ſome of them have none at all, for in *Pontus* where by reaſon they eat Wormwood they have no gall. Likewiſe in *Caleis*: ſome we have ſhewed have two galls, and the *Scythian* Sheep have galls at one time, and not at another, as *Ælianus* writeth, for he ſaith in the very cold Countries, when ſnow and winter covereth the earth, there Sheep have no galls, becauſe they keep within doores, and uſe no change of meat, but in the Summer when they go abroad again to feed in the fields, they are repleniſhed with galls.

There is a Region in *Aſia* called *Scepſis*, wherein they ſay their Sheep have little or no milts. The reins of a Sheep are equal, and there is no Beaſt that hath them covered with fat like unto it. Sheep are alſo apt to grow exceeding fat, for in the year 1547. there was a fat Sheep given to the King of *France* in *Pickardy*, whereof the inward hoofs or cloves of his fore-feet were grown to be as long as eight fingers are broad, the tops whereof were recurved backward like the horns of a wilde Goat. Concerning their tails we have ſpoken already, for the vulgar Sheep have hairy tails like Foxes and Wolves. And thus much ſhall ſuffice to have ſpoken of their ſeveral parts.

The food of Sheep and inſtitution of ſhepheards.

In the next place we are to conſider the food and diet of Sheep, and then their inclination, and the utility that ariſeth by them, and laſtly the ſeveral diſeaſes with their medicines and cures. It is therefore to be remembred, that the Ancients appointed ſhepheards to attend their flocks, and there was none of great account, but they were called Shepheards, or Neatheards, or Goatheards, that is *Bucolici*, *Opiliones*, and *Æpoli*, as we have ſhewed already in the ſtory of Goats: and the *Gentiles* do report, that the knowledge of feeding Oxen and Sheep came firſt of all from the Nymphs, who taught *Ariſteus* in the Iſland of *Co*. The *Græcians* therefore call a ſhepheard *Poimen*, that is, a feeder, or *Poimainein* to feed; and the Poets alſo uſe *Poimantor* for a ſhepheard, and the ſhepheards Dogs, that keep the flock from the Wolf, *Pominitay kunes*, for the Sheep being not kept well, be overcome by the Woolfs, according to the ſaying of *Virgil*;

Nam lupus inſidias explorat ovilia circum.

And *Ovid* likewiſe ſaith;

Incuſtoditum captat ovile Lupus.

The whole care therefore of the Shepheard muſt be, firſt for their food; ſecondly, for their fold; and thirdly, for their health, that ſo he may raiſe a profitable gain, either to himſelf or to him that oweth the Sheep. To begin with the food. Their diet doth not much differ from Goats, and yet they have ſome things peculiar which muſt now be expreſſed. It is good therefore, that their paſtures and feeding places look towards the Sun-ſetting, and that they be not driven over far, or put to too much labour: for this cauſe the good ſhepheard may ſafely feed his Sheep late in the evening, but not ſuffer them to go early abroad in the morning. They eat all manner of herbs and plants, and ſometimes kill them with their bitings, ſo as they never grow more. The beſt is to give them always green meat, and to feed them upon land fallowed or ploughed to be ſown with corn: and although by feeding them in fat paſtures they come to have a ſofter wool or hair, according to the nature of their food, yet becauſe they are of a moiſt temperament, it is better to feed them upon the ſalt and ſhort paſture: for by ſuch a diet, they both better live in health, and alſo bear more precious wooll.

In dry paſtures they are more healthy then in the fenny, and this is the cauſe why it is moſt wholeſome for them to keep in ploughed grounds, wherein they meet with many ſweet and pleaſant herbs, or elſe in upland medows, becauſe all moiſture breedeth in them rottenneſs: he muſt avoid the Woods and ſhadowy places, even as he doth the fens, for if the Sun come not upon the Sheeps food, it is as hurtfull unto him as if he picked it out of the waters: and the ſhepheard muſt not think that there is any meat ſo grateful unto this cattle, but that uſe and continuance will make them to loath it, wherefore he muſt provide this remedy, namely to give them ſalt oftentimes in the Summer when they return from feeding, and if he do but lay it in certain troughs in the folds, of their own accord they will lick thereof, and it will encreaſe in them great appetite.

In the Winter time when they are kept within doores, they muſt be fed with the ſofteſt hay, ſuch as is cut down in the Autumn, for that which is riper is leſs nouriſhable to them: In ſome Countries they lay up for themſelves eſpecially green Ewe leaves, or Elm, three-leaved-graſs, ſowed-vines, and chaffe or peaſe, when other things fail: where there are ſtore of Vines, they gather their leaves for Sheep to eat thereof without all danger, and very greedily, and I may ſay as much of the Olive, both wilde and planted, and divers ſuch other plants, all which have more vertue in them to fat and raiſe your beaſt if they be aſperſed with any ſalt humor: and for this cauſe the Sea-wormwood excelleth all other herbs or food to make fat Sheep. And *Myndius* writeth, that in *Pontus* the Sheep grow exceeding fat by the moſt bitter and vulgar Wormwood. Beans encreaſe their milk, and alſo Three-leaved-graſs, for that is moſt nouriſhable to the Ews with young. And it is obſerved for the fault which in *Latine* is called *Luxuria ſegetum*, and in *Engliſh* rancknеſs of corn, there is no better remedy then to turn in your Sheep in *May* when the ground is hard, if not before, for the Sheep loveth well to crop ſuch ſtalks, and alſo the corn will thrive never the worſe, for in ſome places they eat it down twice, and in the Countrey about *Babylon* thrice, by reaſon of the great fertility thereabouts, and if they ſhould not do ſo, it would turn or run all into ſtalk and idle and unprofitable *Pliny.* leaves. The ſame extaſie is reported to follow Sheep when they have eaten *Eringia*, that we have expreſſed alſo in the Hiſtory of Goats, namely, that they all ſtand ſtill, and have no power to go out of their paſtures, till their Keeper come and take it out of their mouths. It is reported that they are much delighted with the herb called *Laſerpitium*, which firſt purgeth them, and then do fat them exceedingly: It is therefore reported that in *Cyrene*, there hath been none of this found for many years, becauſe the Publicans that hire the paſtures are enemies to Sheep. For at the firſt eating thereof the Sheep will ſleep, and the Goat will fall a neezing. In *India*, and eſpecially in the Region of the *Praſians*, it raineth many times a dew like liquid Honey falling upon the herbs and graſs of the earth: wherefore the ſhepheards lead their flocks unto thoſe places, wherewithal their cattle are much delighted, and ſuch as is the food they eat, ſuch alſo is the taſte of the milk they render; neither need they to mingle Honey with their Milk, as the *Gracians* are conſtrained to do, for the ſweetneſs of that liquor ſaveth them of that charge. Such a kinde of dew the *Hebrews* call *Manna*; the *Gracians*, *Aeromelot*, and *Droſomelos*; the *Germans*, *Himmelbung*; and in *Engliſh* Honey-dew; but if this be eaten upon the herbs in the month of *May*, it is very hurtful unto them. We have ſhewed already, that in ſome parts of *Africk* and *Æthiopia*, their Sheep eat fleſh, and drink milk, and it is apparent by *Philoſtratus*, that when *Apollonius* travelled towards *India*, in the Region *Pegades*, inhabited by the *Orite*, they fed their Sheep with fiſhes, and ſo alſo they do among the *Carmanian Indians*, which do inhabit the Sea-coaſts: and this is as ordinary with them, as in *Caria*, to feed their Sheep with figs, becauſe they want graſs in that Country: and therefore the fleſh of the Sheep doth taſt of fiſh when it is eaten, even as the fleſh of Sea-fouls. The people of that Countrey are called *Ichthyophagi*, that is fiſh-eaters: Likewiſe the Sheep of *Lydia* and *Macedonia*, their Sheep grow fat with *Areanus.* eating of fiſhes. *Ænius* alſo writeth of certain fiſhes about the bigneſs of Frogs which are given unto Sheep to be eaten. In *Arabia* in the Province of *Aden*, their Oxen, Camels, and Sheep, eat fiſhes after they be dryed, for they care not for them when they be green: the like I might ſay of many other places, generally it muſt be the care of the ſhepheard to avoid all thorny and ſtony places for the feeding of his Sheep, according to the precept of *Virgil*;

Si tibi lanicium curæ, primum aſpera ſylva
Lappæq; tribuliq; abſint.——

Becauſe the ſame thing, as he writeth, maketh them bald, and oftentimes ſcratcheth their skin aſunder, his words are theſe;

Turpis oves tentat ſcabies——
——*cum tonſis illotus adhæſit*
Sudor, & hirſuti ſecuêrunt corpora vepres.

Although a Sheep be never ſo ſound, and not much ſubject to the Peſtilence, yet muſt the ſhepheard regard to feed it in choice places: for the fat fields breed ſtrait and tall Sheep, the hills and ſhort paſtures broad and ſquare Sheep: the Woods and Mountain places, ſmall and ſlender Sheep: but the beſt places of all are the plowed grounds. Although *Virgil* preſcribeth his ſhepheard to feed his flock in the morning, according to the manner of the Countrey wherein he lived, for the middle part of the day was over hot, and not fit for cattel to eat in: yet other Nations, (eſpecially *Germany* and *England* and theſe Northern parts of the world) may not do ſo. The whole cunning of ſhepheards is excellently deſcribed, for the ordering of their Sheep in theſe verſes following;

Erg

Ergo omni ſtudio glaciem, ventoſq; nivales;
Quo minus eſt illis curæ mortalis egeſtas
Avertes: victumq; feres, & virgea lætus
Pabula: nec tota claudes fœnilia bruma.
At vero Zephyris cum læta vocantibus æſtas
*In ſaltus * utrumq; gregem atq; in paſcua mittes.*
Luciferi primo cum ſydere frigida rura
Carpamus: dum mane novum, dum gramina canent:
Et ros in tenera pecori gratiſſimus herba eſt.
Inde, ubi quarta ſitim cœli collegerit hora,
Et cantu querulæ rumpent arbuſta cicadæ:
Ad puteos, aut alta greges ad ſtagna jubeto
Currentem illignis potare canalibus undam.
Æſtibus at mediis umbroſam exquirere vallem,
Sicubi magna Jovis antiquo robore quercus
Ingentes tendat ramos: aut ſicubi nigrum
Ilicibus crebris ſacra nemus accubet umbra.
Tum tenues dare rurſus aquas: & paſcere rurſus
Solis ad occaſum, cum frigidus aera veſper
Temperat: & ſaltus reficit jam roſcida luna:
Littoraq; halcyonem reſonant, & acanthida dumi.

The deſcription of a ſhepheards care out of *Virgil.*

* *Oves & capras.*

When they return from their feeding, the ſhepheard muſt regard that he put them not into the folds hot, and if the time of the year be over hot, let them not be driven to paſtures a far off, but feed them in thoſe which are near and adjacent to their folds; that ſo they may eaſily have recourſe unto the ſhadow: they ought not alſo to be turned out cluſtering al together, but diſperſed abroad by little and little, neither muſt they be milked while they are hot, until they be cold a little, ſo likewiſe in the morning, let them be milked ſo ſoon as day appeareth, and the little Lambs be turned out unto them which were ſhut from them. But if there appear upon the graſs Spiders webs, or Cobwebs which bear up little drops of water, then they muſt not be ſuffered to feed in thoſe places for fear of poyſoning; and in times of heat and rain, drive them to the higheſt hills or paſtures, which do moſt of all lie open to the windes, for there ſhall the cattle feed moſt temperately: They muſt avoid all ſandy places, and in the month of *April*, *May*, *June*, and *July*, they muſt not be ſuffered to feed overmuch, but in *October*, *September*, and *November*, let them have their full, that ſo they may grow the ſtronger againſt the Winter time. The *Romans* had a ſpecial regard to chuſe ſome places for the Summering of their Sheep, and ſome place for their Wintering, for if they ſummered them in *Apulia*, they wintered them in *Samnis*; and therefore (*Varro* ſaith) the flocks of *Apulia* betimes in the morning in the Summer ſeaſon are led forth to feeding, becauſe the dewy graſs of the morning is much better then that which is dry in the middle of the day, and about noon when the ſeaſon groweth hot, they lead them to ſhadowy trees and rocks, until the cool air of the evening begin to return, at which time they drive them to their paſture again, and cauſe them to feed towards the Sun-riſing: for this is a general rule among the ſhepheards: *Quod mane ad ſolis occaſum, & veſpere ad ſolis ortum, paſcantur oves.* That is, that in the morning they feed their Sheep towards the Sun-ſetting, and in the evening towards the Sun-riſing, and the reaſon of it is; *Quia infirmiſſimum pecori caput, averſo ſole paſci cogendum.* Becauſe the head of Sheep is moſt weak, therefore it ought to be fed turned from the Sun. In the hot Countries a little before the Sun-ſetting they water their Sheep, and then lead them to their paſture again, for at that time the ſweetneſs ſeemeth to be renewed in the graſs, and this they do after the Autumnal *æquinoctium*. It is good to feed them in corn fields after harveſt, and that for two cauſes: Firſt, becauſe they are exceedingly filled with ſuch hearbs as they finde after the plough, and alſo they tread down the ſtubble, and dung the land, whereby it becometh more fruitful againſt the next year. There is nothing that maketh a Sheep grow more fat then drink; and therefore we read in holy Scripture how *Jacob* watred the Sheep, and the Daughters of *Jethro* their Sheep, at what time *Moſes* came unto them, therefore it is beſt oftentimes to mingle their water with Salt, according to theſe verſes;

At cui lactis amor, cytiſum lotoſq; frequentes,
Ipſe manu ſalſaq; ferat præſepibus herbas.
Hinc & amant fluvios magis, & magis ubera tendunt,
Et ſalis occultum referunt in lacte ſaporem.

There be many that trouble themſelves about this queſtion; namely, for what cauſe the Sheep of *England* do never thirſt, except they ſee the water, and then alſo ſeldom drink, and yet have no more Sheep in *England*, then are in any other Countrey of the world; inſomuch that we think it a prodigious thing that Sheep ſhould drink: but the true cauſe why our *Engliſh* Sheep drink not, is, for there is ſo much dew on the graſs, that they need no other water; and therefore *Ariſtotle* was deceived, who thinketh that the Northern Sheep had more need of water then the Southern. In *Spain* thoſe Sheep bear the beſt fleeces of wooll that drink leaſt. In the Iſland of *Cephalene* as we have ſhewed in the ſtory of the Goat, all their Cattle for want of water do draw in the cold air; but in the hotter Countries every day once at the leaſt about nine or ten a clock in the morning they water their Sheep; and ſo great is the operation of drink in Sheep, that divers Authors do report wonders thereof, as *Valerius Maximus*, and *Theophraſtus*, who affirm that in *Macedonia*, when they will have their Sheep bring forth white Lambs, they lead them to the River *Aliacmon*; and when they will have them to bring forth black Lambs, to the River *Axius*, as we have ſhewed already. It is alſo reported that the River *Scamander* doth make all the Sheep to be yellow that drink thereof: Likewiſe there are two Rivers in *Antandria* which turn Sheep from black to white, and white to black,

The reaſon why the ſheep of *England* do not drink.

black, and the like I might add of the River *Ibrajes*, or the two Rivers of *Beotia*, all which things do not come to paſs by miracle, but alſo by the power of nature, as may appear by the Hiſtory of *Jacob*, when he ſerved his father in law *Laban*.

For after that he had covenanted with *Laban*, to receive for his ſtipend all the ſpotted Sheep, the Scripture ſaith in this manner: *Then* Jacob *took rods of green Poplar, and of Haſel, and of the Cheſnut tree, and pilled white ſtrakes in them, and made the white appear in the rods. Then he put the rods which he had pilled into the gutters and watering troughs, when the Sheep came to drink, before the Sheep, and the Sheep were in heat before the rods, and afterwards brought forth young of party colour, and with ſmall and great ſpots. And* Jacob *parted theſe Lambs, and turned the faces of the flock towards theſe party-coloured Lambs, and all manner of black among the Sheep of* Laban, *ſo he put his own flocks by themſelves, and put them not with* Labans *flock. And in every Ramming time of the ſtronger Sheep,* Jacob *layed the rods before the eyes of the Sheep in the gutters, that they might conceive before the rods, but when the Sheep were feeble he put them not in, and ſo the feebler were* Labans, *and the ſtronger were* Jacobs. Upon this action of the Patriarch *Jacob*, it is clear by teſtimony of holy Scripture, that divers colours laid before Sheep at the time of their carnal copulation, do cauſe them to bring forth ſuch colours, as they ſee with their eyes: for ſuch is the force of a natural impreſſion, as we read in ſtories, that fair women by the ſight of Blackamores, have conceived and brought forth black children, and on the contrary, black and deformed women have conceived fair and beautiful children; whereof there could be no other reaſon given in nature, but their only cogitation of and upon fair beautiful men, or black and deformed *Moores*, at the time of their carnal copulation.

So that I would not have it ſeem incredible to the wiſe and diſcreet Reader, to hear that the power of water ſhould change the colour of Sheep: for it being once granted, that nature can bring forth divers coloured Lambs, being holpen by artificial means, I ſee no cauſe, but diverſity of waters may wholly alter the colour of the elder, as well as whited ſticks ingender a colour in the younger: And thus much ſhall ſuffice to have ſpoken concerning the Summering of Sheep. For their Wintering I will ſay more when I come to entreat of their ſtabling or houſing.

Of the copulation of Sheep.

Now then it followeth in the next place to diſcourſe of copulation or procreation; for there are divers good rules and neceſſary obſervations, whereby the skilful ſhepheard muſt be directed, and which he ought to obſerve for the better encreaſe of his flock. Firſt of all therefore it is clear, that Goats will engender at a year old, and ſometime Sheep alſo follow that ſeaſon, but there is a difference betwixt the Lambs ſo engendered, and the other that are begotten by the elder: therefore at two year old they may more ſafely be ſuffered to engender, and ſo continue till they be five year old, and all their Lambs be preſerved for breeding; but after five year old their ſtrength and natural vertue decreaſeth, ſo that then neither the Dam nor the Lamb is worthy the nouriſhing, except for the knife, for that is born and bred of an old decayed ſubſtance, will alſo reſemble the qualities of his ſires.

There be ſome that allow not the Lamb that is yeaned before the parents be four year old, and ſo they give them four years to engender and breed, namely till they be eight year old, but after eight years, they utterly caſt them off: and this opinion may have ſome good reaſon, according to the quality of the Region wherein they live, for the ſooner they begin to bear young, the ſooner they give over; and herein they differ not from Cows, who if they breed not till they be four year old may continue the longer, and for this cauſe I will expreſs the teſtimony of *Albertus*, who writeth thus: *Oves parere uſq; ad annum octavum poſſunt, & ſi bene curentur vel in undecimum facultas pariendi protrahitur, quod tempus eſt tota fere vita, oves in quibuſdam tamen terris marinis ubi ſicca & ſalſa habent paſcua vivunt per viginti annos & pariunt.* That is to ſay, Sheep may breed until they be eight year old, and if they be well kept until they be eleven, which time is for the moſt part the length of their days, although in ſome Countries upon the Sea coaſts, they live till they be twenty year old, and all that time breed young ones, becauſe they feed upon dry and ſalt paſtures, and therefore *Ariſtotle* alſo ſaith, that they bring forth young ones all the time of their life.

The time of their copulation, as *Pliny* and *Varro* write, is from *May* till about the middle of *Auguſt*, and their meaning is, for the Sheep of thoſe hot Countries. For in *England*, and other places ſhepheards protract the time of their copulation, and keep the Rams and Ewes aſunder till *September*, or *October*, becauſe they would not have their Lambs to fall in the cold Winter ſeaſon, but in the Spring and warm weather: and this is obſerved by the ancient ſhepheards, that if the ſtrongeſt Sheep do firſt of all begin to engender and couple one with another, that it betokeneth a very happy and fortunate year to the flock, but on the contrary, if the younger and weaker Sheep be firſt of all ſtirred up to luſt, and the elder be backward and ſlow, it preſageth a peſtilent and rotten year.

Ariſtotle.
Albertus.

Helps for the copulation of Sheep.

They which drink ſalt Water are more prone to copulation then others, and commonly at the third or fourth time the female is filled by the male. There is a great ſimilitude and likeneſs betwixt Sheep and Goats. Firſt, for their copulation, becauſe they couple together at the ſame time. Secondly, for the time they bear their young, which is five moneths, or a hundred and fifty days: alſo many times they bring forth twins like Goats, and the Rams muſt be alway ſo admitted as the Lambs may fall in the Spring of the year, when all things grow ſweet and green; and when all is performed, then muſt the males be ſeparated from the females again, that ſo all the time they go with young, they may go quietly without harm.

In their conception they are hindered if they be over fat, for it is with them as it is among Mares and Horſes, ſome are barren by nature, and others by accident, as by overmuch leanneſs or overmuch fatneſs. *Plutarch* maketh mention of an ancient cuſtome among the *Græcians*, that they were wont to drive their Sheep to the habitation of *Agenor*, to be covered by his Rams: And I know not whether he relate it as a ſtory, or as a Proverb to ſignifie a fruitful and happy Ramming time I rather incline to the later, becauſe he himſelf ſaith in the ſame place, that *Agenor* was a wiſe and skilful King, Maſter of many flocks, whoſe breed of Sheep was accounted the beſt of all that Nation, and therefore either they ſent their females to be covered by his Rams, or elſe they ſignified a happy conjunction of the Rams and Ewes together. *Pliny* writeth, that if the right ſtone of a Ram be tyed or bound faſt when he leapeth upon an Ewe, he will engender a male, but if the left ſtone be tyed, he will beget a female.

Means to make the Rams get males or females.

Near the City *Patræ* there are two Rivers, one of them called *Milichus* and the other *Charadrus*, and the Cattle that drink of this water in the Spring time, do beget males, and therefore ſhepheards when they bring their Sheep and Goats to that River, they drive them to the farther ſide of the River, becauſe they would have more females then males: for that vertue lyeth in one of the ſides, but their Kine they ſuffer to drink on that ſide, becauſe among their heards the male is beſt for Bulls and Oxen ſerve them for ſacrifice, and to till the earth, and therefore the male in that kinde, but in all other the female is more acceptable.

Both males and females are begotten as well by the vertues of waters, as by the vertue of the Rams, and likewiſe by the vertue of the winde: for when the North winde bloweth for the moſt part males are conceived, but when the South winde females: and therefore *Ariſtotle* ſaith: *In admiſſuræ tempore obſervare ſiccis diebus habitus ſeptentrionales, ut contra ventum gregem paſcamus, & cum ſpectans admittatur pecus, at ſi fœminæ generandæ ſunt, auſtrinos flatus captare, ut eadem ratione matrices ineantur.* That is to ſay, In the Ramming time you muſt obſerve the blowing of the Northern winde in dry days, and not only feed the flock againſt the winde, but alſo cauſe the Ram to leap the Ewe with his face to the North: but if you would engender females, then muſt you in like manner obſerve the South winde. Unto this experiment do *Palladius*, *Ælianus*, and *Columella* agree, and theſe things are neceſſary to be obſerved about the engendering of Lambs.

Now after that the Ewe is filled by the Ram, the diligent ſhepheard muſt have as great regard to keep her from abortment, or caſting of her Lamb: therefore *Ariſtotle* ſaith, if preſently after copulation there fall a ſhowre, or if when they are great with young they eat Wallnuts, or Acorns, they will caſt their Lambs: and likewiſe if in time of Thunder the Ewe with young be alone in the field, the claps of Thunder will cauſe abortment; and the remedy thereof, for the avoiding of that miſchief, is preſcribed by *Pliny*: *Tonitrus* (ſaith he) *ſolitariis ovibus abortus inferunt, remedium eſt congregare eas ut coitu juventur*, that is, to call them together in times of Thunder, is a remedy againſt abortment. Therefore he requireth of a skilful ſhepheard a voice or whiſſel intelligible to the Sheep, whereby to call them together, if they be ſcattered abroad feeding, at the firſt appearance and note of thunder. It is alſo reported, that there are certajn veins under the tongue of a Ram, the colour whereof do preſage or fore-ſhew, what will be the colour of the Lamb begotten by them: for if they be all white, or all black, or all party coloured, ſuch alſo will be the colour of it that they engender.

Albertus.

The yeaning of Lambs.

Bathius.

Ewes bring forth for the moſt part but one at a time, but ſometimes two, ſometimes three, and ſometimes four, the reaſon whereof is to be attributed either to the quality of the food whereof they eat, or elſe to the kinde from which they are derived: For there be certain Sheep in the *Orcades*, which always bring forth two at one time, and many of them ſix. There are alſo Sheep in *Magnetia*, and *Africk*, that bring forth twice in the year: And *Ariſtotle* in his wonders writeth, that the Sheep of *Umbria* bring forth thrice in a year, and among the *Illyrians* there are Sheep and Goats, that bring forth twice in the year, two at a time, yea ſometimes three, or four, or five, and that they nouriſh them all together, with their abundance of milk, and beſides ſome of their milk is milked away from them. *Egypt* is ſo plentiful in graſs, that their Sheep bring forth twice in a year, and are likewiſe twice lipped: ſo likewiſe in *Meſopotamia*, and in all moiſt and hot Countries.

Albertus.

Many times times it falleth out, that the Ewe dyeth in the yeaning of her Lamb, and many times they bring forth monſters: ſo alſo do all other Beaſts that are *multipara*: betwixt a Goat and a Ram, is a Muſmon begotten, and betwixt a Goat-buck and an Ewe is the Beaſt *Cinirus* ingendered; and among the *Rhætians* many times there are mixed monſters brought forth, for in the hinder-parts they are Goats, and in the fore-parts Sheep: for Rams when they grow ſtrong, old and wanton; leap upon the female Goats, upon which they beget ſuch monſters, but they die for the moſt part immediately after the yeaning.

Sometimes wilde Rams come to tame Sheep, and beget upon theſe Lambs, which in colour and wooll do moſt of all reſemble the father, but afterward when they bear young, their wooll beginneth to be like to other vulgar Sheep: when the Ewe is ready to be delivered, ſhe travaileth and laboureth like a Woman, and therefore if the ſhepheard have not in him ſome Midwives skill, that in caſes of extremity he may draw out the Lamb when the members ſtick croſs in the matrix, or elſe if that be unpoſſible, becauſe it is dead in the dams belly, yet to cut it out without peril and danger to the Ewe, in ſuch caſes the *Gracians* call a ſhepheard *Embiuoulcos*.

Cuſtody of Ewes and young Lambs and means to encreaſe their milk.

Having thus brought the Sheep to their delivery for the multiplication of kinde, it then reſteth to provide that the new born Lamb may be ſecured from Dogs, Woolfs, Foxes, Crows, Ravens, and all enemies to this innocent Beaſt, and alſo to provide that the Ewe may render to her young one ſufficient food out of her udder; therefore they muſt be well and extraordinarily fed. We have ſhewed already the uſe of Salt, and then alſo it is very profitable when the Ewe is newly delivered of her Lamb, for it will make her drink and eat more liberally. In the Winter time for the encreaſe of their milk, in ſtead of green paſtures, and ſuch other things as we have expreſſed, it is requiſite to give them corn, and eſpecially plenty of Beans.

For this cauſe ſome preſcribe to be given unto their Sheep the herb *Lanaria*, which they affirm to be profitable to be given to encreaſe milk; ſome the ſtone *Galacites* to be beaten to powder, and anointed upon the Ewes udder; and ſome preſcribe to ſprinkle water and ſalt upon them every morning in the houſe or field, before the Sun riſing.

But herein I leave every man to his own judgement, hoping it will not be offenſive to any, to relate thoſe things before expreſſed, and reſting in opinion, that both the food that is received inwardly, and alſo the Ointments that are applyed outwardly, will be ſufficient means to procure abundance of milk in the Summer and Winter ſeaſons.

Of the wintering and ſtabling of ſheep.

Now therefore it followeth to entreat likewiſe of the Wintering of Sheep, for as there is more coſt to keep them in cold weather then in warm, ſo it doth require at our hands ſome diſcourſe thereof. Then it behoveth you to provide for them warm folds and ſtables, whereof the Poet writeth in this manner:

Incipiens, ſtabulis edico in mollibus berbam
Carpere oveis, dum mox frondoſa reducitur æſtas:
Et multa duram ſtipula filicumque maniplis
Sternere ſubter humum; glacies ne frigida lædat
Molle pecus ſcabiemq; ferat, turpeiſq; podagras.

Whereby it is evident that the cold Winters do beget in Sheep divers and many diſeaſes, and for that cauſe it was the counſel of a wiſe and learned man, that our Sheep ſhould not be turned out to feeding neither in cold or warm weather, until the froſt were diſſolved and thawed from off the graſs and earth.

Palladius.
Pet. Creſcent.

The *Tarentine*, *Gracian*, and *Aſian* Sheep, were wont to be altogether kept in ſtables within doors, lying continually upon plancks and boards bored through, that ſo their precious fleeces might be the better ſafe-guarded from their own filth and urine; and three times in the year they let them out of their ſtables, to waſh them and anoint them with Oyl and Wine: and to ſave them free from Serpents, they burned in their ſtables, and under their cratches, *Galbanum*, Cedar-wood, Womans hair, and Harts-horns: and of theſe *Tarentine* and *Gracian* Sheep, *Columella* writeth in this manner: It is in vain for any man to ſtore himſelf with thoſe *Tarentine* Sheep, for they ask as much or more attendance and coſtly food then their bodies are worth; for as all Beaſts that bear wooll are tender, and not able to endure any hardneſs; ſo among all Sheep, there are none ſo tender as the *Tarentine* or *Gracian* Sheep, and therefooe the Keeper of them muſt not look to have any playing days, nor times of negligence or ſluggiſhneſs, and much leſs to regard his covetous minde, for they are cattel altogether impatient of cold, being ſeldom led abroad, and therefore the more at home to be fed by hand; and if by covetouſneſs or negligence, one withdraw from them their ordinary food, he ſhall be penny wiſe, and pound fooliſh: that is, ſuffer a great loſs in his cattel, for ſaving from them a little meat.

Every one of them all the Winter long, were fed with three pintes of Barley or Peaſe, or Beans three times a day, beſide dryed Ewe-leaves, or Vine leaves, or Hay late mown, or fitches, or chaff. Beſides there cannot be any milk taken from the dams, for at the firſt yeaning there is no more then to ſerve the little or leaſt Lambs, and after a few days, even while they ſmell and taſte of their dams belly, they were to be killed for want of ſuck, that every Lamb which was to be preſerved for breed might have two dams or Ewes to ſuck, and ſo the poor Ewe was forced to a double miſerie; firſt to looſe her young one, and afterward to lend her paps and milk to a ſtranger. And moreover, they were forced to nouriſh more males then females, for that at two year old they were gelded, or killed, to ſell their beautiful skins to the Merchant, for their wool was moſt pretious, by reaſon that never or ſeldom they went abroad to the fields. Their cuſtody in the houſe from Serpents and other annoyances, is thus deſcribed by the Poets:

Diſce & odoratam ſtabulis incendere cedrum
Galbaneoq; agitare graves nidore chelydros.
Sæpe ſub immotis præſepibus, aut mala tactu
Vipera delituit, cœlumq; exterrita fugit,
Aut tecto aſſuetus coluber. ——

In conſideration whereof, and of all the pains about the houſing of theſe tender Sheep, the Poet teacheth the ſhepheard or Sheep-maſter to kill the Serpents, and daſh out the brains of ſnakes, ſaying:

——Cape ſaxa manu; cape robora paſtor
Tollentemq; minas, & ſibila colla tumentem
Dejice.——

The faſhion of ſheep-coats or ſtables.

Concerning the ancient forms of their Sheep-ſtables, I finde this to be recorded by the ancients. Firſt, they made them low and not of any high or lofty building, ſo ſtretching them out in length, and not in height, that it may be warm in the Winter time, for although there be no creature better cloathed by nature then a Sheep, yet is there not any more impatient of cold, nor more apt to take harm thereby. It muſt not be over-broad, yet ſo as the Ewe and her Lamb may lie both together, and the breathing place not left open at the top of the houſe or the ſides, for that will let in too much air, but at the door or porch of their entrance, and that very low, that ſo the freſh air may quickly and eaſily come to their low heads and bodies, and alſo their breath the better avoid out of the ſtable.

They alſo had a care to cover all the floor with ſtraw or dry boared boards, or ſome ſuch other matter, whereby they might ſtand continually dry and warm, and alſo clean and ſweet, to the end they might not be annoyed in their own ſtandings; and therefore the floor was made ſhelving or falling low on the one ſide, or elſe of hurdles like baskets to let out their urine, for they often make water: and theſe were often changed, cleanſed, and turned. In this ſtable there ought to be diviſions or partitions wherein in time of neceſſity and ſickneſs, they may eaſily abide alone and be parted from the reſidue, and feed without annoyance of one another, and eſpecially that one may not ride another, and during the time of the Winter, they did not let their cattel drink above once a day.

The manner how in old time they bought and ſold ſheep.

And theſe were the cures of the Ancients about their flocks of Sheep. For upon them they lived, they bought and ſold, and herein alſo it is profitable to obſerve the ancient manner of their bargains about theſe creatures: for when a man came and bought Sheep, he made this proteſtation to the ſeller: *Tanti ſunt mihi emptæ?* To whom the ſeller anſwereth, *ſunt:* Then the buyer draweth his mony with theſe words; *Sic illaſce oves, qua de re agitur, ſanas recte eſſe uti pecus ovillum, quod recte ſanum eſt, extra luſcam minam* 1. *ventre glabro, neq; de pecore morboſo eſſe, habereq; recte licere: hæc ſi recte fieri reſpondes? &c.*

Firſt, the Buyer ſaith, ſhall I buy theſe Sheep for thus much money? and ſo draweth his money, to whom the Merchant or ſeller anſwereth, you ſhall: Then ſaith the chapman or buyer again to him, Do you promiſe to me, then that theſe Sheep are as ſound as Sheep ſhould be, without fault of winde or limb, without blindeneſs, without deafneſs, without pield bellies, not coming out of any infected flock; and ſo as it ſhall be lawful for me to injoy them without all mens contradiction, If theſe things be true, then I will ſtrike up the bargain: and yet doth not the ſeller change the property of his ſheep, nor loſe his Lordſhip over them until the mony be paid. And hereupon it cometh to paſs that the buyer may condemn the ſeller, if the cattel be not ſo good as his bargain, or if he do not deliver them; even as the buyer is ſubject to the ſame judgement, if he do not deliver the price. And concerning ſhepheards, and cuſtody of flocks I may adde a word or two more: Firſt of all for the number of the Sheep, how many may ſafely be kept in every flock.

The general diſcipline of ſhepheards.

There is no need that I ſhould give any rules about this buſineſs, for the Ancients were wont to ſet one ſhepheard over a hundred rough or courſe woolled Sheep, and two ſhepheards over a hundred fine woolled Sheep: the common flocks were ſeaventy, or fourſcore, and the ſhepheard that followed them, was charged to be both vigilant and gentle, and therefore his diſcipline was: *Duci propior eſſe quam domino, & in cogendis, recipiendiſque ovibus, adclamatione, ac baculo minetur, nec unquam telum emittat, neque ab his longius recedat, nec aut recubet, aut concidat, nam niſi procedit, ſtare debet, quoniam grex quidem cuſtodis officium ſublimem celſiſſimamq; oculorum, veluti ſpeculam, deſiderat, ut neq; tardiores, & gravidas dum cunctantur, neq; agiles & fœtas dum procurrunt, ſeparari à cæteris ſinat, ne fur aut beſtia hallucinantem paſtorem decipiat*, ſaith *Collumella*: He muſt rather be a guide unto them then a Lord or Maſter over them, and in driving them forward, or receiving them home after they have ſtragled, he muſt rather uſe his chiding voice, and ſhake his ſtaffe at them, then caſt either ſtone or dart at them: neither muſt he go far from them at any time, nor ſit down, but ſtand ſtill, except when he driveth them, becauſe the flock deſireth the direction of their Keeper, and his eye like a lofty watch-tower, that ſo he ſuffer not to be ſeparated aſunder, either the heavy Ews great with young, becauſe of their ſlow pace, nor yet the light and nimble ones which give ſuck, and are delivered of their young, which are apt to run away, leſt that ſome ravening beaſt or thief deceive the loitering ſhepheard by taking away from him the hindmoſt or formoſt. There may alſo be more in a flock of Sheep then in a flock of Goats, becauſe the Goats are wanton, and ſo diſperſe themſelves abroad, but the Sheep are meek and gentle, and for the moſt part keep round together: Yet it is better to make many flocks then one great one, for fear of the peſtilence.

In the ſtory of the Dogs we have ſhewed already, how neceſſary a ſhepheards Dog is to the flock, to defend them both from Woolfs and Foxes, and therefore every ſhepheard muſt obſerve thoſe rules there expreſſed, for the proviſion, choice, and inſtitution of his Dog: and to conclude this diſcourſe of the ſhepheard, when the Lambs are young he muſt not drive their dams far to paſture, but feed them neer the Town, Village or Houſe, and his ſecond care muſt be to pick and cull out the aged and ſick Sheep every year, and that in Autumn or Winter time, leſt they die and infect their fellows, or leſt that the whole flock do go to decay for want of renewing and ſubſtitution of others, and therefore he muſt ſtill regard that when one is dead. he ſupply the place with one or two at the leaſt, and if he chance to kill one at any time for the houſhold, the counſel of *Antiphanes* is profitable to be followed; *Illas tantum mactare debes oves ex quibus nullus amplius fructus, vel caſei vel velleris, vel lactis, vel agnorum perveniet.* That is, to kill thoſe Sheep from whom you can never expect any more profit by their Lambs, Milk, Cheeſe, or Fleeces.

Of the diſeaſes of Sheep, and their cauſes in general.

Of the diſeaſes of Sheep.

IN the next place it is neceſſary for the wiſe and diſcreet ſhepheard to avoid all the means whereby the health of his flock ſhould be indangered, and thoſe are either by reaſon of their meat and food that they eat, or elſe by reaſon of natural ſickneſſes ariſing through the corruption of bloud, and the third way is by the biting of venemous beaſts, as Serpents and Wolves, and ſuch like; and a fourth way, ſcabs, Gowts, ſwellings, and ſuch like outward diſeaſes.

Of venomous meats or herbs unto Sheep.

THere is an herb which the *Latines* call *Herba Sanguinaria*, *Piloſella*, *Numularia*, and by the *Germans* and *Engliſh* cald Fenugreek, and by the *French* becauſe of the hurt it doth unto Sheep, they uſe this circumſcription of it: *L'herbe qui tue les brebis*, The herb that deſtroyeth Sheep. It is called alſo Serpentine, becauſe when Snakes and Adders are hurt therewith, they recover their wounds by eating thereof; when a Sheep hath eaten of this herb, the belly thereof ſwelleth abundantly, and is alſo drawn together, and the Sheep caſteth out of his mouth a certain filthy ſpume or froath, which ſmelleth unſavourly, neither is the poor beaſt able to eſcape death, except preſently he be let bloud in the vein under his tail next to the rump, and alſo in the upper lip: yet is this herb wholeſome to all other cattle except Sheep alone, wherefore the Shepheards muſt diligently avoid it. It is a little low hearb, creeping upon the ground with two round leaves, not much unlike to Parſley, it hath no ſavour with it, or ſmelleth not at all, the flower of it is pale and ſmelleth ſtrong, and the ſtalk not much unlike the flower. It groweth in moiſt places, and near Hedges and Woods.

If in the Spring time Sheep do eat of the dew called the Hony-dew, it is poyſon unto them, and they die thereof; Likewiſe canes in the Autumn do make their belly ſwell unto death, if they drink preſently after they have eaten thereof, for that meat breaketh their guts aſunder. The like may be ſaid of Savine, Tamariſk, Rhododendron, or Roſe-tree, and all kindes of Henbane.

The female Pimpernel doth likewiſe deſtroy Sheep, except aſſoon as they have eaten of it, they meet with the herb called *Ferus-oculus*, Wilde-eye; but herein lyeth a wonder, that whereas there are two kindes of this herb, a male and a female, they ſhould earneſtly deſire a male, and eagerly avoid a female, ſeeing that both of them have the ſame taſte in the palat of a man, for they taſte like the raw roots of Beets.

There is an herb in *Normandy* called *Duna*, not much unlike Rubarb, or great Gentian, but narrower leaves, and ſtanding upright, the nerve whereof in the middle is red, and it groweth about the waters, and therefore I conjecture it may be Water-ſorrel, or Water-planton, whereof when Sheep have eaten, they fall into a diſeaſe called alſo *Duna*, for there is bred in their liver certain little black Worms or Leeches, growing in ſmall bags or skins, being in length half a finger, and ſo much in breadth, wherewithall when the Beaſt is infected, it is uncurable; and therefore there is no remedy but to take from it the life: and that this is true, the Butchers themſelves affirm, how many times they do finde ſuch little worms in the Sheeps liver, and they ſay, they come by drinking of Fenny or Marſhy-water. And to conclude, there is a kinde of Pannick alſo, whereof when Sheep have eaten it deſtroyeth them, and there be other herbs which every common ſhepheard knoweth are hurtful unto Sheep; and the Beaſt it ſelf, though in nature it be very ſimple, yet is wiſe enough to chuſe his own food, except the vehement neceſſity of famine and hunger cauſeth him to eat poyſoned herbs.

In caſes when their bellies ſwell, or when they have worms in their belly which they have devoured with the Herbs they eat, then they pour into their bellies the urine of men, and becauſe their bellies preſently ſwell and are puffed out with winde, the ſhepheards cut off the tops of their ears, and make them bleed, and likewiſe beat their ſides with their ſtaff, and ſo moſt commonly they are recovered. If Sheep chance to drink in their heat, ſo as their greaſe be cooled in their belly, which Butchers do finde many times to be true, then the ſhepheard muſt cut off half the Sheeps ear, and if it bleed the Beaſt ſhall be well, but if it bleed not, he muſt be killed and eaten, or elſe he will ſtarve of his own accord. If at any time a Sheep chance to devour a leach, by pouring in Oyl into his throat, he ſhall be ſafe from danger.

Of the Colds of Sheep.

Sheep are known to be ſubject to cold, not only by coughing after they have taken it, but alſo by their ſtrength before they take it; for the ſhepheards do diligently obſerve, that when any froſt or ice falleth upon a Sheep, if he endure it, and not ſhake it off, it is a great hazard but the ſame Sheep will die of cold, but if he ſhake it off, and not endure it, it is a ſign of a ſtrong, ſound, and healthy conſtitution: Likewiſe for to know the health of their Sheep, they open their eyes, and if the veins appear red and ſmall, they know they are ſound, but if they appear white, or elſe red and full; they know they are weak, and will hardly live out Winter or cold Weather: alſo when they are taken in their hands, they preſs their back bone near the hips, and if it bend not they are ſound and ſtrong, but if they feel it bend under their hand, they hold them weak and feeble: Likewiſe if a man take them by the head or by the skin of the neck, if he follow him eaſily when he draweth him, it is a ſign of weakneſs and imbecillity, but if it doth ſtrive, and follow with great difficulty, then it is a token of health and ſoundneſs.

Of Scabs, and the cauſes of them.

The original cauſe of ſcabs.

The true original of Scabs is either as we have ſaid already, leanneſs, or elſe cold, or wet, or wounds in the fleſh by clipping, or to conclude, by the heat of the Beaſt in Summer not waſhed off, by thorns and prickings of buſhes, or by ſitting upon the dung of Mules, Horſes, or Aſſes. Now when this firſt of all beginneth, it is eaſie for the ſhepheard to obſerve by theſe ſignes and tokens, for the tickling or itching humor, lying betwixt the skin and the fleſh, cauſeth the poor Sheep either to bite the place with his teeth, or to ſcratch it with his horn, or to rub it upon a tree or wall, or if he can do none of theſe, ſtamp hard upon the ground with his fore-feet, for which it is good preſently to ſeparate the Sheep ſo affected from the flock. The deſcription and cure whereof is thus expreſſed by *Virgil*:

Turpis oves tentat ſcabies, ubi frigidus imber
Altius ad vivum perſedit, & horrida cano
Bruma gelu: vel cum tonſis illotus adhæſit
Sudor, & hirſuti ſecuerunt corpora vepres.
Dulcibus idcirco fluviis pecus omne magiſtri
Perfundunt, udiſq; aries in gurgite villis
Merſatur, miſſuſq; ſecundo defluit amni.
Aut tonſum triſti contingunt corpus amurca:
Et ſpumas miſcent argenti, vivaq; ſulphura,
Idæaſq; pices, & pingues unguine ceras,
Scillamq; helleboroſq; graves nigrumq; bitumen.
Non tamen ulla magis præſens fortuna laborum eſt,
Quam ſi quis ferro potuit reſcindere ſummum
Ulceris os: alitur vitium, vivitq; tegendo,
Dum medicas adhibere manus ad vulnera paſtor
Abnegat.——

which may be *Engliſhed* in this manner: When the poor Sheep through wet ſhowers, cold Winter, Summers ſweat, or pricking of thorns, doth incur the filthy diſeaſe of ſcabs, then it concerneth his maſter to waſh him in ſweet Rivers over head and ears, yea to caſt him in to ſwim for his own life, or elſe to anoint his body after it is clipped with the ſpume or froth of Oyl, and of Silver with Brimſtone, and ſoft *Idean* Pitch, with Wax, Hellebore, Black-earth, or the fleſh of Shrimps; or if it be poſſible to cut off the top of the wound with a knife.

Of the Scabs of Sheep, the firſt remedy.

This diſeaſe the *French* men call *Letac*, and of all other it is one of the moſt contagious, for our *Engliſh* proverb juſtifieth, one ſcabbed Sheep infecteth a whole flock, and *Textor* writeth thus of it; *Oves frequentius quam ullum aliud animal infeſtantur ſcabie, quam facit macies, ut maciem inopia cibi, huic morbo niſi occurratur unica totum pecus coinquinabit, nam oves contagione vexantur.* That is to ſay, Sheep are more oftentimes infected with ſcabs then any other creature, whereinto they fall through leanneſs, as they fall into leanneſs through want of food; and therefore if a remedy be not provided for this evil, one of them infected will defile all the reſidue, for Sheep are ſubject to contagion: for remedy whereof in *France* they uſe this medicine: Firſt of all they ſhear the Sheep, and then they mingle together the pure froath of Oyl and water, wherein Hops have been ſod, and the lees of the beſt Wine, and ſo let it ſoak in two or three days together: afterwards they waſh them in Sea water, and for want of Sea water in ſalt water: and this medicine is approved, whereby both ſcabs and tikes are removed from the Sheep, and alſo the wooll groweth afterwards better then ever it did before; but it is better if a man can cure them without ſhearing then by ſhearing, as *Varro* writeth; and furthermore to waſh Sheep oftentimes with this medicine, doth preſerve them from ſcabs before they be infected: and others adde unto this medicine little ſticks of Cypreſs-wood ſoked in water, and ſo waſh them therewith; ſome again make another medicine of Sulphure or Brimſtone, Cypreſs, white Lead and Butter, mingled all together, and ſo anoint their Sheep therewith. Some again take earth which is as ſoft as dirt, being ſo ſoftned with the ſtale of an Aſs, but evermore they ſhave the ſcabbed place firſt of all, and waſh it with cold or ſtale urine, and generally in *Arabia* they were never wont to uſe other medicine then the gum of Cedar, wherewithall they purged away by Ointment all ſcabs from Sheep, Camels, and Elephants:

phants: but to conclude, there is no better medicine for this evill then Urine, Brimſtone and Oyl, as *Diophones* writeth.

Another medicine for the Scabs.

TAke the lees of Wine, the froath of Oyl, white Hellebore mingled with the liquor of ſod Hops, alſo the juyce of green Hemlock, which is expreſſed out of the ſtalk before it hath ſeed, after it is cut down and put into an earthen veſſel with any other liquor mingled, with ſcorched ſalt, ſo the mouth of the veſſel being made up cloſe, ſet it in a dunghill a whole year together, that ſo it may be concocted with the vapour of the dung, then take it forth, and when you will uſe it, warm it, firſt of all ſcraping the ulcerous or ſcabbed part with an Oyſter ſhell, or elſe with a ſharp pumice ſtone, untill it be ready to bleed, and ſo anoint it therewith.

Another medicine of the ſame.

TAke the froath of Oyl ſod away to two parts, I mean three parts into two, put thereinto the ſtale urine of a man, which hath been heated by caſting into it hot burning Oyſter-ſhels, and mingle a like quantity of the juyce of Hemlock, then beat an earthen pot to powder, and infuſe a pinte of liquid Pitch and a pinte of fryed or ſcorched ſalt, all which being preſerved together, do cure the ſcabs of Sheep ſo often as they are uſed.

Another medicine.

A Drink being made of the juyce of Hops, and the herb Chamælion, and given unto them cureth them. Likewiſe the ſame being ſod with the roots of black Chamælion, and anointed warm upon the place, according to *Dioſcorides*, have the ſame operation. Likewiſe *Pliny* writeth, that the ſcabs of Sheep may be cured by ſalt water alone, either taken out of the Sea, or made by art, and foraſmuch as there is great danger in the decoction thereof, leſt that the water overcome the ſalt, or the Salt overcome the water, he preſcribeth a mean how to know it, namely the equal and juſt temperament thereof, for (ſaith he) if it will bear up an Egge then it is well tempered, ſo that the Egg will ſwim and not ſink, which you ſhall find by addition of equal and juſt quantity of water and Salt, that is, two pintes of water, a pinte of Salt, and ſo leſs to leſs, and more to more. But if there be any bunch or great ſcab which covereth any part of the skin, then open the ſcab and bunch, and pour into it liquid pitch and ſcorched ſalt: and thus much for the diſeaſe of the ſcabs.

Of the Holy fire which the Shepheards call the Pox, or the Bliſters, or Saint Anthonies fire.

THis evill is uncurable, for it neither admitteth medicine nor reſecation by knife, and therefore whenſoever a Beaſt is infected therewith, it ought preſently to be ſeparated from the reſidue of the flock, for there is nothing that ſpreadeth it ſelf more ſpeedily: whenſoever you adventure to apply any thing unto it, it preſently waxeth angry, and perplexeth the whole body except it be the milk of Goats, and yet my Author ſpeaketh thus of it: *Quod infuſum tantum velet, ut blandiatur, igneam ſævitiam, differens magis occiſionem gregis, quam probibens.* That is, It ſeemeth to cloſe with raging fire, as it were to flatter it a little, rather deferring the death of the Beaſt, then doing away the diſeaſe. It is therefore preſcribed by the moſt memorable Author of all the *Egyptians*, that men do oftentimes look upon the backs of their Sheep to ſee the beginning of this ſickneſs, and when they finde a Sheep affected herewith, they dig a ditch or hole fit for him at the entering in of the Sheep-coat or ſtable, wherein they put the Sheep alive with his face upward, and back downward, and cauſe all the reſidue of the flock to come and piſs upon him, by which action it hath been often found (as *Columella* writeth) that this evill hath been driven away, and by no other means.

Of the Warts, and Cratches of Sheep.

THis diſeaſe is called by the vulgar ſhepheards the Hedghog, and it doth annoy the Sheep two manner of ways; Firſt, when ſome gauling or matter ariſeth upon the paring of the hoof, or elſe a bunch ariſe in the ſame place having hair growing in the middle like the hair of a Dog, and under that a little worm, the worm is beſt drawn out with a knife, by cutting the top of the wound, wherein muſt be uſed great warineſs and circumſpecteion, becauſe if the worm be cut aſunder in the wound, there iſſueth out of her ſuch a venemous puſtulate matter, that poyſoneth the wound, and then there is no remedy but the foot muſt be cut off. But the wound being opened, and the worm taken out alive, preſently with a Wax-candle you muſt melt into it hot burning ſewet, and if there be no bunch but only ſcabs, take Allum, liquid Pitch, Brimſtone, and Vinegar, mingled all together, and apply it unto the wound, or elſe take a young Pomgranate before the grains grow in it, and bake it with Allum, caſting upon it Vinegar, ſharp Wine, and the ruſt of Iron fryed all together.

Of the Falling-ſickneſs.

IT cometh to paſſe ſometimes that Sheep are infected with the Falling-ſickneſs, but the cure hereof can never be known, nor yet the ſickneſs well till the beaſt be dead, and then (as *Hippocrates* writeth) by opening of the brain it will evidently appear, by the over great moiſtneſs thereof.

Of the pains in the Eyes.

IT is reported by *Theophraſtus* and *Pliny*, that for clouds and other pains in the Eye of a Sheep, horned-poppy and *Chamelia* are very wholſome.

Of Phlegme in Sheep.

FOr the Remedy of this Diſeaſe, take Penyroyal, Marjoram, or wilde Nep made up together in wool, and thruſt into the Noſe of the Sheep, there turned round untill the Beaſt begin to neeze, alſo a ſtalk of black Hellebor boared through the ear of the Sheep, and there tyed faſt for the ſpace of four and twenty hours, and then taken out at the ſame time of the day that it was put in, by *Pliny* and *Columella* is affirmed to be an excellent remedy againſt the Phlegm.

Of the ſwelling in the Jaws.

THere is ſometimes an inflammation or ſwelling in the Jaws of Sheep, which the *Latins* call *Tonſillæ*, coming by reaſon of a great flux of humors from the head unto that place, which may be cured two manner of wayes, firſt, by inciſion or opening the skin where the bunch lyeth, whereby all the watery tumors are evacuated, and the Beaſt cured; or elſe if through the coldneſſe of the weather or ſome other accident you liſt not to cut the skin, then annoint it with *liquid* Pitch, prepared in ſuch manner as is before expreſſed for the Scabs, by operation whereof, it will be diſſolved and diſperſed: When this evill ariſeth in the begining of the Spring, many times it is cured without all remedy, becauſe the Beaſt for the greedineſs of the ſweet graſſe ſtoopeth down her head, and ſtretcheth her neck, by which the ſtraining and ſoreneſſe of her jawes and throat departeth, and this ſickneſſe in a ſheep is like the Kings-evill in a man. There be ſome that cure it by putting ſalt among the meat of theſe Beaſts, or by Juniper berries, and Harts-tongue leaves beaten to powder.

For the Cough, and pain in the Lungs.

SHepherds for theſe diſeaſes do take the powder of the root of Foal-foot, and mingle it with Salt, ſo give it unto the Sheep to lick, whereby they are perſwaded, that the Lungs of the Beaſt are much comforted and ſtrengthned, and furthermore againſt the Cough, they take blanched Almonds, and beat them to powder, and ſo tempering in them two or three cups of Wine, do infuſe it in at the Sheeps Noſtrils, and likewiſe Vervine which is called a kinde of Germander, but falſely, becauſe it hath no good ſmell, is given by ſhepherds at this day unto their Sheep againſt the Cough.

Of ſighing and ſhortneſs of breath.

FOr Sheep that are affected with much ſighing, they uſe to bore a hole with an Iron through their ears, and remove the Sheep out of the place where they feed to ſome other place, and if it come from the ſickneſs of the Lungs, then the herb called Lungwort or Creſwort, is the moſt preſent remedy in the World: If the root thereof be drunk in water, or a piece thereof tyed under the Sheeps tongue, or (as *Celſus* ſaith) give unto it as much Vinegar as the Beaſt can endue, or half a point of a Mans ſtale urine warmed at the fire, and infuſed into the Noſtril with a little horn, this alſo is a remedy againſt Flegm in the Summer time.

Of the loathing of Sheep; and encreaſing of their ſtomach.

IF at any time the Sheep forſake his meat, then take his tail and pull off from it all the Wool; afterwards bind it as hard as ever you can, and ſo he will fall hard to his meat again: and *Pliny* affirmeth, that the ſame part of his tail which is beneath the knot will die after ſuch binding, and never have any ſenſe in it again.

Of the Fluxes of Sheep, and looſeneſs of the belly.

FOr this diſeaſe the Shepherds take no other thing but the herb *Tormentilla*, or Set-foyl, wherewithall they ſtop all manner of laxes, but if they cannot get the ſame herb, then they take ſalt and give it unto them; and ſo having increaſed their thirſt, they give unto them black Wine, whereby they are cured.

Of the milt of Sheep.

IN *April* and *May*, through the aboundance of thick groſſe bloud, the Milt of Sheep is ſtopped and filled, then the Shepherds will take two of their fingers, and thruſt them within the Noſtrils of the Sheep, there rubbing them untill they make them bleed, and ſo draw from them as much bloud as they can.

Of the ſickneſs of the Spleen.

FOraſmuch as a Horſe, a Man and a Sheep, are troubled with the ſame diſeaſes, they are alſo to be cured with the ſame remedies, and therefore Spleen-wort given unto Sheep, as to a Man and a Horſe (as we have already expreſſed) is the beſt remedy for this Malady.

Of the Fevers of Sheep.

SOmetimes a ſhaking rage through an incenſed and unnatural heat of the bloud in the Sheep begeteth in him a Fever, the beſt remedy whereof is to let him bloud, according to theſe Verſes;

Quinetiam ima dolor babantum lapſus ad oſſa,
Cum ſurit, atq; artus depaſcitur arida febris:
Profuit incenſos æſtus avertere: & inter
Ima ferire pedis ſalientem ſanguine venam,
Quam procul aut molli ſuccedere ſæpius umbræ
Videris, aut ſummas carpentem ignavius herbas,
Extremamq; ſequi, aut medio procumbere campo
Paſcentem, & ſeræ ſolam decedere nocti.
Continuo ferro culpam compeſce: priuſquam
Dira per incautum ſerpat contagio vulgus.

In which Verſes the Poet defineth the ſignes of this diſeaſe and the cure. The ſignes he ſaith are ſolitarineſs, and a careleſs feeding, or biting off the top of his meat, following always the hindmoſt of the flock, and lying down in the middle of the field, when others be a feeding, alſo lying alone in the night time, and therefore he wiſheth to let them bloud under the paſtern or ankle bone of their foot, but by often experiment it hath been proved, that to let them bloud under the eyes or upon the eares, is as availeable as in the legs; but concerning the Fever we will ſay more in the diſcourſe of the Lambs.

Of the Peſtilence or Rottenneſs of Sheep.

THis ſickneſs firſt of all cometh unto Sheep out of the earth, either by ſome earthquak, or elſe by ſome other Peſtilent humor corrupting the vitall ſpirit: for *Seneca* writeth, that after the City *Pompeii* in *Campania* was overthrown by an Earthquak in the Winter time, there followed a Peſtilence which deſtroyed ſix hundred Sheep about that City in ſhort time after, and this he ſaith did not happen through any natural fear in them, but rather through the corruption of water and air which lyeth in the upper face of the earth, and which by the trembling of the earth is forced out, poyſoning firſt of all the Beaſts becauſe their heads are downward and feed upon the earth; and this alſo will poyſon men if it were not ſuppreſſed and overcome by a multitude of good air which is above the earth. It were endleſſe to deſcribe all the evils that come by this diſeaſe, how ſome conſume away by crying and mourning, filling both fields and hils with their lamentations, leaving nothing behind them, no not their skins or bowels for the uſe of Man: For the cure whereof, Firſt change the place of their feeding, ſo that if they were infected in the woods or in a cold place, drive them to the hils or to ſunny warm fields; and ſo on the contrary, if in warm places and clement air, then drive them to more turbulent and cold paſtures: remove and change them often, but yet force them gently, weighing their ſick and feeble eſtate, neither ſuffering them to die through lazineſs and idleneſs, nor yet to be oppreſſed through overmuch labour. When you have brought them to the place where you would have them, there divide them aſunder, not permitting above two or three together, for the diſeaſe is not ſo powerful in a few as in a multitude: and be well aſſured that this removing of the air and feeding is the beſt Phyſick. Some do preſcribe three leaved graſſe, the hardeſt roots of Reeds, ſand of the Mountain, and ſuch other Herbs for the remedy of this; but herein I can promiſe nothing certain, only the Shepherd ought oftentimes to give this unto his Sheep when they are ſound. I will conclude therefore this diſcourſe of the Peſtilence with the deſcription of *Virgil*;

Balatu pecorum, & crebris mugitibus amnes,
Arenteſq; ſonant ripæ colleſq; ſupini,
Jamq; catervatim dat ſtragem: atq; aggerat ipſis
In ſtabulis, turpi dilapſa cadavera tabo,
Donec humo tegere, ac foveis abſcondere diſcunt,
Nam neq; erat coriis uſus, nec viſcera quiſquam
Aut undis adolere poteſt, aut vincere flamma.
Nec tondere quidem morbo, illuvieq; pereſa
Vellera, nec telas poſſunt attingere putres.
Verum etiam inviſos ſi quis tentarat amictus,
Ardentes papulæ, atq; immundus olentia ſudor
Membra ſequebatur: nec longo deinde moranti
Tempore, contactos artus ſacer ignis edebat.

It is reported by *John Stowe*, that in the third year of *Edward* the firſt, and in *Anno* 1275. there was a rich man of *France*, that brought a Sheep out of *Spain* (that was as great as a Calf of two year old) into *Northumberland*, and that the ſame Sheep fell rotten, or to be infected with the Peſtilence, which afterward infected almoſt all the Sheep of *England*: and before that time the Peſtilence or rottenneſs was not known in *England*, but then it took ſuch hold, and wrought ſuch effects, as it never was clear ſince, and that firſt Peſtilence gave good occaſion to be remembred, for it continued for twenty and ſix years together. And thus much for this diſeaſe of the Peſtilence cauſed in *England* for the moſt part in moiſt and wet years.

Of Lice and Tikes.

If either Lice or Tikes do moleſt Sheep, take the root of a Maple tree, beat the ſame into powder, and ſeethe it in water, afterwards clip off the wool from the back of the Sheep, and powre the ſaid water upon the back, untill it hath compaſſed the whole body: ſome uſe for this purpoſe the root of *Mandragoras*, and ſome the roots of Cypreſſe, and I finde by good Authors, that all of them are equivalent to rid the Sheep from theſe annoyances: To conclude therefore the diſcourſe of Sheeps diſeaſes, it is good to plant near the Sheep-coats, and paſtures of Sheep, the herb *Alyſſon*, or wilde Gallow-graſſe, for it is very wholeſome for Goats, and Sheep; likewiſe the flowers of wormwood dryed and beaten to powder given unto Sheep with Salt, doth aſſwage all inward diſeaſes and pains, and alſo purge them throughly.

The juice of Centory is very profitable for the inward diſeaſes of Sheep, and likewiſe the flowers of Ivy the Hoom tree hath four kinds of fruit, two proper, the Nut, and the Grain; two improper, the Line, and Hiphear, this Hiphear is very profitable for Sheep, and it is nothing elſe but a confection made out of the barks of the Hoom tree: the word it ſelf is an *Arcadian* word, ſignifying no other thing then *viſcus* and *ſtelis*. Sheep alſo delight in the branches of Maiden-hair, and generally the Wool of Sheep burned to powder and given them to drink, is very profitable for all their inward diſeaſes. And thus much ſhall ſuffice to have ſpoken of the ſeveral infirmities and ſickneſſes of Sheep, which I deſire the *Engliſh* Reader to take in good part, wondering very much at the manifold wits, and ſtirring pens of theſe dayes, wherein I think our times may be compared to the moſt flouriſhing times that ever were ſince the worlds beginning; yet none have adventured to apply their times and wits for the explication of the ſeveral ſickneſſes of Sheep and Cattle.

I know there are many Noblemen, Knights and Gentlemen of the Land, and thoſe alſo which are very learned, that are great maſters of Sheep and Cattle, and I may ſay of them as the Prophet *David* ſaith: *Their Oxen are ſtrong to labour, and their Sheep bringeth forth thouſands and ten thouſands in their fields*: Whereby they are greatly inriched, and yet not one of them have had ſo much commiſeration, either towards the poor Cattle, in whoſe garments they are warmed, or Charity to the World,

For the better direction to maintain the health of theſe creatures, as to publiſh any thing in writing for the benefit of *Adams* children, but ſuch knowledge muſt reſt in the breaſts of ſilly Shepherds; and for the maſters, either they know nothing, or elſe in ſtrange viſitation and mortality of their Cattle, they aſcribe that to Witchcraft and the Devill, which is peculiar to the work of nature.

Horſes, Dogs, and almoſt every creature, have gotten favour in Gentlemens wits, to have their natures deſcribed, but the ſilly Sheep better every way then they, and more neceſſary for life, could never attain ſuch kindneſſe, as once to get one page written or indited for the ſafegard of their natures. I do therefore by theſe preſents from my ſoul and ſpirit, invite all Gentlemen and men of learning, not only to give their mindes to know the defects of this beaſt, but alſo to invent the beſt remedies that nature can afford, for it is a token of higheſt mercy unto brute beaſts to feed them when they are hungry, and to recover them when they are ſick.

Columella and *Varro* two great *Romans*, and ſuch as had attained to ſome of the greateſt place of the Common-wealth, being men of excellent wits and capacity, yet had their names been forgotten and they never remembred, if they had not written of ruſtick and countrey matters, and it is no little honour unto them to have left that behind them in Print, or writing, which themſelves had obſerved from following the Plough. Therefore it ſhall be no diſgrace for any man of what worth ſoever to beſtow his wits upon the Sheep; for certainly it is no leſſe worthy of his wit, then it is of his teeth; and how neceſſary it is for the nouriſhment of man, we all know to this day, and beſides there is nothing that ſo magnifyeth our *Engliſh* Nation as the price of our Wool in all the kingdoms of the World. But what account the antients made of Sheep, I will now tell you; for their greateſt men both Kings and Lords were Shepherds, and therefore you which ſucceed in their places ſhall beſtow much leſſe labour in writing of Sheep then they did in keeping: with the picture of a Sheep they ſtamped their antient money, and it is reported of *Mandrabulus*, that having found a great treaſure in the earth, in token of his blind thankfulneſs to God did dedicate three pictures of Sheep to *Juno*, one of Gold, another of Silver, and a third of Braſſe; and beſides the antient *Romans* made the penalties of the lawes to be Oxen and Sheep, and no Man might name an Ox untill he had named a Sheep.

Among the *Troglodytes* they had their Wives common, yet their Tyrants had lawes to keep their wives to themſelves, and they thought it a great penalty for the Adultery of their wife, if the Adulterer payed them a Sheep.

The Poets have a pretty fiction, that *Endymion* the Son of *Mercury* fell in love with the Moon, who deſpiſed him, and that therefore he went and kept Sheep; afterward the Moon fell in love with his white Sheep, and deſired ſome of them, promiſing to grant his requeſt, if he would gratifie her choice: whereupon the wiſe-man (as *Probus* writeth) divided his flock into two parts, the whiter on the one ſide which had the courſer Wool, and the blacker on the other ſide which had the finer Wool, ſo the Moon choſe the white ones and granted him her love, whereupon *Virgil* thus writeth;

Pan munere niveo lunæ captum te Luna feſellit.

It may appear alſo in what great regard Sheep were in antient time, for that their Prieſts made holy Water and ſacrifices for their ſanctification, whereof I finde theſe relations in *Gyraldus*, *Virgil*, and others. At the luſtration of Sheep there was another manner of ſanctifying then at other times, for the Shepherd roſe betimes in the morning, and ſprinkled his Sheep all over with Water, making a perfume round about the fold, with Sulphur, Savine, Lawrell, Wine and fire, ſinging holy verſes, and making ſacrifice to the God *Pan*, for they did believe that by this luſtration the health of their Sheep was procured, and all conſuming diſeaſes driven away.

It is reported that when Sheep of ſtrange colours were ſprinkled with this water, it ſignified great happineſs to the Princes of the people, and they were gifts for the Emperor, whereupon *Virgil* made theſe Verſes;

Ipſe ſed in pratis aries jam ſuave rubenti
Murice, jam croceo mutabit vellena luto.

When men went to receive anſwers of the Oracles, they ſlept all night in the skins of Sheep. There was a Noble ſacrifice among the *Pagans* called *Hecatombe*, wherein were ſacrificed at one time a hundred Sheep at a hundred ſeveral Altars.

It is reported of King *Joſias*, that he ſacrificed at one time twelve hundred Oxen and eight and thirty hundred Sheep; ſo great was the dignity of this Beaſt, that God himſelf placed in the death thereof one part of his worſhip: and whereas it was lawful among the Heathens to make their ſacrifices of Sheep, Goats Swine, Oxen, Hens, and Geeſe, they made reckoning that the Lamb and the Kid was beſt of all, for that God was not pleaſed with the quantity, but with the quality of the ſacrifice. The antient *Egyptians* for the honor of Sheep, did neither eat nor ſacrifice them, and therefore we read in holy Scripture, that the *Iſraelites* were an abomination to the *Egyptians*, becauſe they both killed, and ſacrificed Sheep, as all Divines have declared.

There is a noble ſtory of *Clitus* who when he ſacrificed at the Altar, was called away by King *Alexander*, and therefore he left his ſacrifices and went to the King, but three of the Sheep that were appointed to be offered did follow after him, even into the Kings preſence, whereat *Alexander* did very much wonder (and that not without cauſe) for he called together all the Wiſe-men and Sooth-ſayers to know what that prodigy did foreſhew, whereunto they generally anſwered that it did foreſhew ſome fearful events to *Clitus*, for as much as the Sheep which by appointment were dead, that is, ready to die, did follow him into the preſence of the King, in token that he could never avoid a violent death: and ſo afterwards it came to paſſe; for *Alexander* being diſpleaſed with him, becauſe (as it is ſaid) he had railed on him in his drunkenneſs, after the ſacrifice commanded him to be ſlain, and thus we ſee how divine things may be collected from the natures of Sheep. Theſe things are reported by *Plutarch* and *Pauſanias*.

Another note of the dignity of Sheep, may be collected from the cuſtom of the *Lacedemonians*: When they went to the wars they drove their Goats and their Sheep before them, to the intent that before they joyned battle they might make ſacrifice to their Gods: the Goats were appointed to lead the way for the Sheep, for they were drove formoſt, and therefore they were called *Catzades*, and on a time this miraculous event fell out, for the wolves ſet upon the flocks, and yet contrary to their ravening nature, they ſpared the Sheep, and deſtroyed the Goats; which notable fact is worthy to be recorded, becauſe that God by ſuch an example among the Heathen *Pagans*, did demonſtrate his love unto the good in ſparing the Sheep, and his hatred unto the wicked in deſtroying the Goats, and therefore he reſerved the Sheep to his own Altar:

Idibus alba Jovi, grandior agna cadit,
So ſaith *Ovid.*

Nigram hiemi pecudem, zephyris fœlicibus albam,
So ſaith *Virgil.*

And again;

———*Huc caſtus Hibilla*
Nigrarum multo pecudum te ſanguine ducet.

To *Jupiter* and to the Sun, they were wont to ſacrifice white Sheep or Lambs, but to *Pluto* and to the Earth, they ſacrificed black Sheep or Lambs, in token of deadneſſe: Therefore *Tibullus* writeth;

Interea nigras pecudes promittite Diti.

And *Virgil* ſaith;
Duc nigras pecudes, ea prima piacula ſunto.

When the *Grecians* ſent their ſpies to the tents of the *Trojans*, to diſcover what order, ſtrength, and diſcipline they obſerved: *Neſtor* and the antients of *Greece* vowed unto the Gods for every one of the Captains a ſeveral gift, that was, *Oin melainan, thelen hyporrenon*; that is, a black Sheep great with young: the reaſon whereof is given by the *Scholiaſt*, they vowed (ſaith he) a black Sheep, becauſe the ſpies went in the night time, blackneſs being an emblem of darkneſs, and a Sheep great with young becauſe of good fortune, for they ſped well in *Troy*. In *Apollonia* there were certain Sheep that were dedicated to the Sun, and in the day time they fed neer the river in the beſt paſture, being lodged every night in a goodly ſpatious cave neer the City, over whom the greateſt men both for wealth, ſtrength, and wit were appointed every night to watch by turns for their better ſafegard: and the reaſon of this cuſtody, and the great account made of theſe Sheep, was for that the Oracle had commanded the *Apollonians* to do ſo unto them, and make much of them: Afterwards *Evenius* a noble man among them keeping watch according to his turn, fell aſleep, ſo that threeſcore of the ſaid Sheep were killed by Wolves; which thing came in queſtion among the common Magiſtrates to know the reaſon of that fact, and how it came to paſs, whether by negligence or by ſome other violent incurſion: *Evenius* being no wayes able to defend it, was condemned to have both his eyes put out, that ſo he might be judged never more worthy to ſee the light with thoſe eyes, which would not wake over their charge, but wink and ſleep when they ſhould have been open. And to conclude, I will but add this one thing more, that whereas the *Egyptians* worſhipped the Sheep for a god, God permitted the ſame unto the *Jews* to be eaten among common and vulgar meats, and alſo to be burned at the Altar for ſacrifice; and whereas the ſaid *Egyptians* did not only eat but ſacrifice ſwines fleſh, God himſelf did forbid his people that they ſhould never eat or taſt of Swines fleſh as an abominable thing: by which he ſignifieth how contrary the precepts of men are to his own laws, for that which he forbiddeth, they allow; and that which they allow, he forbiddeth; and therefore how far the people of God ought to be from ſuperſtition, and from the traditions of men, is moſt manifeſt by this compariſon, for that was never ſanctified that came not into the Temple, and that was never lawful which was not approved by God: and thoſe things which in his law have greateſt appearance of cruelty, yet are they more juſt and equall then the moſt indifferent inventions of men, which ſeem to be ſtuffed out with mercy, and gilded over with compaſſion.

Cælius, Herodotus.

And theſe things moſt worthy Readers, I have thought good to expreſs in this place for the dignity and honorable account which the greateſt men of the world in former times have made of Sheep, and thereby I would incite and ſtir you up, if it were but one noble ſpirited learned man, which is furniſhed with wit, means, and opportunity, to dive and pierce into the ſecrets of *Engliſh* Sheep, and Shepherds, and to manifeſt unto the world, the beſt and moſt approved means and medicines, for the propulſing and driving away of all manner of diſeaſes from thoſe innocent profitable beaſts, and for their conſervation in all manner of health and welfare.

I am ſorry that our times are ſo far poyſoned with Covetouſneſs, that there is no regard of God, man, or beaſt, but only for profit and commodity: for as for the ſervice of God, we ſee that the common devotion of men, and practiſe of their Religion, is founded upon a meer hope that therefore God will better proſper them in worldly affairs, and if it were not for the reward in this world, the profeſſors of Religion would not be half ſo many as now they are; and that is true in them which the Devil ſlanderouſly objected to *Job*, namely, *that they do not ſerve God for nothing*, and they had rather with *Dives* have the Devils favour in rich garments and delicate fare, then with *Lazarus* with miſery and contempt, enjoy the favour of God, and to ſet up their hopes for an other world. As for Men, we ſee that the Son loveth his Father but for patrimony, and that one man maketh much of another, for hope to receive benefit and recompence by them; and therefore it is no marvell if the ſilly beaſts have obtained ſo little mercy, as to be loved, not becauſe they are Gods creatures, but for that they are profitable and ſerviceable for the neceſſities of men: for this cauſe you nouriſh them, and not like the *Apollonians* aforeſaid for the Oracles ſake, but for their fleeces and their fleſh. Therefore if you have any compaſſion, learn how to help their miſeries, and publiſh them to the world for the general benefit; for he cannot be good which is not merciful unto a beaſt, and that mercy doth eaſily die which groweth but in one heart of one mortall man.

There were a company of people in *Egypt* called *Lycopolitæ*, who worſhipped a Wolf for a God, and therefore they alone among all the *Egyptians* did eat Sheep, becauſe the Wolf did eat them; even ſo I can make no better reckoning of thoſe men that nouriſh Sheep for their profit only, then I do of the *Lycopolitæs*, which worſhipped a Wolf, for ſuch men have no other God but their belly, and therefore I truſt theſe reaſons ſhall perſwade ſome one or other to write a larger diſcourſe of our *Engliſh* Sheep.

Of the ſeveral commodity & utility coming by Sheep, and firſt of their fleſh.

Now in the next place we are to diſcourſe of the utilities that cometh by Sheep, for as it is the meekeſt of all other Beaſts, ſo as the reward of meekneſs, there is no part of him but is profitable to man: his fleſh, bloud, and milk is profitable for meat, his skin and wool both together and aſunder for garments, his guts and intrails for muſick, his horns and hoofs for perfuming and driving away of Serpents, and the excrements of his belly and egeſtion or dung, for the amending and enriching of plowed lands, and for theſe occaſions did the *Egyptians* worſhip it for a God, for that they could ſee no creature in the world, but had ſome parts altogether unprofitable unto men, but in this they found none at all.

Firſt of all therefore to begin with their fleſh, although Phyſitians have their ſeveral conceits thereof, as *Galen* (who ſaith) that the fleſh of Hares is better then the fleſh of Oxen and Sheep; and *Simeon Zethi*, who being forced to confeſs the goodneſs of Mutton or Sheeps-fleſh in the beginning and middle of the Spring, yet writeth that it is full of ſuperfluities and evill juice, and hurtful to all flegmy and moiſt ſtomacks. *Creſcentienſis* alſo writeth, that the fleſh of Sheep hath an unpleaſant taſt through overmuch humidity, and fit for none but for Countrey-labouring men: Indeed I grant the opinion of *Platina*, who writeth thus concerning Rams: *Ovem arietem dentibus ne attingas, non modo enim ejus caro non prodeſt, verum etiam vehementer obeſt*; that is, That Rams fleſh we ought never to touch, for it is not only unprofitable, but it is much hurtful: yet in *England* the fleſh of Rams is uſually eaten, either through the craft or ſubtilty of the Butchers, or elſe through Covetouſneſs. But in many houſes (as I have heard) there is a kinde of Veniſon made of the fleſh of Rams, which is done by this means; Firſt they take the Ram, and beat him with ſtripes on all parts till the fleſh grow red, for ſuch is the nature of the bloud, that it will gather to the ſick affected places, and there ſtand to comfort them, ſo by this means after the Ram is killed, the fleſh looketh like Veniſon: But as in other diſcourſes, namely, Hares and Conies, we have already ſhewed our hatred of all cruel meats, ſo alſo I utterly diſlike this, for if it be not ſufficient to kill and eat the beaſt, but firſt of all put it to Tyrannical torments, I cannot tell what will ſuffice, except we will deal with beaſts, as *PILATE* did with *CHRIST*, who was firſt of all whipped and crowned with thorns, and yet afterward did crucifie him.

But for the taking away of that Rammy humour and rank moiſtneſs which is found in the Male-ſheep, they uſe to geld them when they are young and ſuck their dams, or elſe within the compaſs of a year after their yeaning, whereby the fleſh becometh ſo temperate, ſweet, and ſavory, as any other fleſh in the world; and if they paſſe a year, then do they uſe to knit them, and ſo in time their ſtones deprived of nouriſhment from the body by reaſon of knitting, do dry and conſume away, or utterly fall off, whereby the whole fleſh of the Beaſt is made very ſeaſonable and wholeſome. It is granted by all, that when they are young, that is to ſay, a year old, their fleſh is very wholeſome, and fit for nouriſhment of mans nature, but that they increaſe much phlegm, which evill is allaied by eating Vinegar and drinking wine unto it. In many places they ſalt their Muttons when they are killed, and ſo eat them out of the pickle, or elſe roaſt them in the ſmoak like Bacon. Within the territory of *Helvetia*, there is a publick law whereby the Butchers are forbidden to buy any forain Sheep, after the feaſt of St. *James*; that is, the five and twenty day of *July*, for although that after that time they grow fat, yet is their fleſh then leſſe wholeſome, and their fat more hurtfull, then that which is gotten in the Spring of the year.

It were needleſs for me to ſet down the diviſion of a dead Sheep into his quarters, ſhoulders, legs, loins, rackes, heads, and purtinances, for that they are commonly known, and the relation of them can miniſter ſmall learning to the Reader, but every part hath his uſe, even the bloud that is taken from him when his throat is cut, hath his peculiar uſe for the nouriſhment of man, and above all other things the fat of his loins commonly called his ſewet wherein it excelleth all other beaſts whatſoever, for their reins are covered all over with fat.

Of their milk.

There is no leſs uſe of their milk not only for young, but for old perſons, and as well for the rich to beautifie their tables, as for the poor to ſerve their hungry appetites, and there be ſome people in *Africk* that have no corn in all their Countrey, and therefore in ſtead of bread, their common food is milk, the goodneſs whereof is thus expreſſed by *Fierra*;

Quod præſtat? Capræ, poſt? Oves, inde boves.

Evermore the milk of an Ewe is beſt that is neweſt and thickeſt; and that which cometh from a black Sheep is preferred before that which is milked from a white, and generally there is no beaſt

whereo

whereof we eat, but the milk thereof is good and nouriſhable, therefore the milk of Sheep is preferred in the ſecond place, and there is no cauſe that it is put in the ſecond place but for the fatneſs thereof, otherwiſe it deſerved the firſt, for as the fatneſs maketh it leſs pleaſant to the palate and ſtomach of Man, yet is it more pretious for making of Cheeſe; and we have ſhewed already that in ſome places as in the Iſland *Erythrea*, the milk of Sheep yeeldeth no whay, and that they can make no Cheeſe thereof, but by mingling abundance of water with it; they make abundance of Cheeſe in the *Apennine* hils, and in *Lyguria*; the Cheeſe of *Sicilia* is made of Goats and Sheeps milk, and generally Cheeſe made of Sheeps milk is the better the more new it is. The nature of a Sheep is to give milk eight moneths together, and in *Italy* they make Butter alſo of the milk of Sheep, all the Summer time unto the feaſt of St. *Michael* they milk them twice a day, but after that, untill they cupple with their Rams, they milk them but once a day; the faults of Cheeſes made of their milk is either becauſe they are over dry or hollow, and full of eyes and holes, or elſe clammy like birdlime, the laſt proceedeth from the want of preſſing, the ſecond through overmuch ſalt, and the third by overmuch drying in the Sun. And thus much ſhall ſuffice to have ſpoken of thoſe things in Sheep which are fit to be eaten.

In the next place we come to diſcourſe of their Wool, and of the ſhearing or clipping of Sheep, for although their fleſh be pretious, yet it is not comparable in value to their fleeces, for that when they are once dead, they yeeld no more profit, but while they live they are ſhorn once or twice a year, for in *Egypt* they are ſhorn twice a year, and alſo in ſome parts of *Spain*. And it appeareth that in antient times there were great feaſts at their Sheep-ſhearings, as is apparent in the holy Scripture in many places, and eſpecially by the hiſtory of *Abſalon*, who after he had once conceived malice againſt his Brother *Amnon*, he found no opportunity to execute the ſame, untill his Sheep-ſhearing feaſt, at which time in the preſence of all his brethren the Kings ſons (even at dinner) when no man ſuſpected harm, then did *Abſalon* give a ſign to his wicked ſervants to take away his life, which they performed according to their Maſters malice.

It appeareth by the words of *Pliny*, who writeth thus; *Oves non ubiq; tondentur, durat quibuſdam in locis vellendi mos; qui etiam nunc vellunt, ante triduo jejunas habent quo languidæ minus radices lanæ retinent*; that is, Sheep are not every where ſhorn, for yet unto this time in many places they do commonly obſerve the old cuſtom of pulling the wool off from the Sheeps back and they which do now pull the wool and not ſhear it, do alwayes cauſe their Sheep to faſt three days before, that ſo being made weak the roots of the wool may not ſtick ſo faſt, but come off more eaſily.

And indeed I am confirmed in this opinion by the *Latine* word *Vellus*, which ſignifieth a fleece, which can be derived from no other Radix or Theam, nor admit any other manner or kinde of notation, then *a vellendo*, that is, from pulling.

Cato alſo in his Book of Originals writeth thus, *Palatini collis Romæ altera pars Velleia appellata fuit, a vellenda lana ante Hetruſcam tonſuram incolis monſtratam*; that is to ſay, There was one part of the hill *Palatine* at *Rome*, which was called *Velleia*, from the pulling of wool, for it was their cuſtom there to pull their wool, before the inhabitants learned the *Hetrurian* manner of ſhearing Sheep; by which teſtimony we ſee evidently the great torment that the poor Sheep were put unto when they loſt their fleeces, before the invention of ſhearing, for it is certain by the antient pictures and ſtatues of Men, that there was no uſe of ſhearing either hair or wool, from Men or Sheep.

But the hair of Men grew rude, and in length like Womens, and Sheep never loſt their fleeces but by pulling off, and therefore *Varro* writeth, that four hundred and fifty years after the building of *Rome* there was no Barber or Sheep-ſhearer in all *Italy*, and that *Publius Ticinius Menas* was the firſt that ever brought in that cuſtom among the *Romans*, for which there was a monument erected in writing in the publick place at *Ardea*, which untill his time was there ſincerely preſerved.

Now concerning the times and ſeaſons of the year for the ſhearing of Sheep, it is not onely hard, but alſo an impoſſible thing to ſet down any general rule to hold in all places. The beſt that ever I read is that of *Didymus*, *nec frigido adhuc, nec jam æſtivo tempore, ſed medio vere Oves tondendæ ſunt*; That is, Sheep muſt neither be ſhorn in extreme cold weather, nor yet in the extreme heat of Summer, but in the middle of the Spring.

In ſome hot Countries they ſhear their Sheep in *April*, in temperate Countries they ſhear them in *May*, but in the cold Countries in *June* and *July*, and generally the beſt time is betwixt the Vernal Equinoctium, and the Summers ſolſtice, that is, before the longeſt day, and after the days and nights be of equall length; there be ſome that ſhear their Sheep twice in a year, not for any neceſſity to diſburden the beaſt of the fleece, but for opinion that the often ſhearing cauſeth the finer wool to ariſe, even as the often mowing of the graſſe maketh it the ſweeter. In the hot Countries the ſame day that they ſhear their Sheep, they alſo anoint them over with Oyl, the lees of old wine, and the water wherein Hops are ſod, and if they be near the Sea ſide, three days after they drench them over head and ears in water, but if they be not near the Sea ſide, then they waſh them with rain water ſod with Salt: and hereby there cometh a double profit to the Sheep: Firſt, for that it will kill in them all the cauſe of ſcabs for that year, ſo as they ſhall live ſafe from that infection: and ſecondly the Sheep do thereby grow to bear the longer and the ſofter wool. Some do ſhear them within doors, and ſome in the open ſun abroad, and then they chuſe the hotteſt

Columella.

Palladius.

Celſus.

and the calmeſt days, and theſe are the things or the neceſſary obſervations, which I can learn out of the writings of the antients about the ſhearing of Sheep.

Shearing time in *England.*

Now concerning the manner of our *Engliſh* Nation, and the cuſtoms obſerved by us about this buſineſſe, although it be needleſſe for me to expreſſe, yet I cannot contain my ſelf from relating the ſame, conſidering that we differ from other Nations. Firſt therefore, the common time whereat we ſhear Sheep is in *June*, and Lambs in *July*; and firſt of all we waſh our Sheep clean in running ſweet waters, afterward letting them dry for a day or two, for by ſuch waſhing all the wool is made the better and cleaner: then after two days we ſhear them, taking heed to their fleſh, that it be no manner of way clipped with the ſheares, but if it be, then doth the ſhearer put upon it liquid pitch, commonly called Tar, whereby it is eaſily cured and kept ſafely from the flies. The quantity of wool upon our Sheep is more then in any other Countrey of the world, for even the leaſt among us (ſuch as are in hard grounds) as in *Norfolk*, the uppermoſt part of *Kent*, *Hertfordſhire*, and other places, have better and weightier fleeces then the greateſt in other Nations: and for this cauſe the forain and *Latin* Authors do never make mention of any quantity of wool they ſhear from their Sheep, but of the quality.

The quantity in the leaſt is a pound, except the Sheep have loſt his wool, in the middle ſort of Sheep two pounds or three pounds, as is vulgar in *Buckingham*, *Northampton*, and *Leiceſter ſhires*: But the greateſt of all in ſome of thoſe places, and alſo in *Rumney marſh* in *Kent*, four or five pounds: and it is the manner of the Shepherds and Sheep-maſters to wet their Rams, and ſo to keep their wool two or three years together growing upon their backs, and I have credibly heard of a Sheep in *Buckinghamſhire* in the flock of the L. P. that had ſhorn from it at one time, one and twenty pound of wool. After the ſhearing of our Sheep, we do not uſe either to anoint or waſh them, as they do in other Nations, but turn them forth without their fleeces, leaving them like medowes new mowen, with expectation of another fleece the next year. The whole courſe of the handling of our Sheep is thus deſcribed by the flower of our *Engliſh* Gentlemen husbands Maſter *Thomas Tuſſer*;

Waſh Sheep' for the better where water doth run,
And let him go cleanly and dry in the Sun,
Then ſhear him and ſpare not, at two days an end,
The ſooner the better his corps will amend,
Reward not thy Sheep when ye take off his coat
With twitches, and ſlaſhes as broad as a groat:
Let not ſuch ungentleneſs happen to thine
Leſt flie with her gentles do make him to pine.
Let Lambs go unclipped till June *be half worne,*
The better the fleeces will grow to be ſhorn,
The Pye will diſcharge thee for pulling the reſt,
The lighter the Sheep is, then feedeth it beſt.

And in another place of the husbandry of Sheep he writeth thus:

Good farme and well ſtored, good houſing and dry,
Good corn and good dairy, good market and nigh,
Good ſhepherd, good till-man, good Jack and good Gill,
Makes husband and huſwife their coffers to fill:
Let paſture be ſtored and fenced about,
And tillage ſet forward as needeth without.
Before you do open your purſe to begin,
With any thing doing for fancy within,
No ſtoring of paſture with baggagely tit,
With ragged and aged as evill as it:
Let carren and barren be ſhifted away,
For beſt is the beſt, whatſoever you pay.

And in another place ſpeaking of the time of the year for gelding Rams, and ſelling of wool which he admoniſheth ſhould be after *Michaelmas*, he writeth thus:

Now geld with the gelder, the Ram and the Bull,
Sew ponds, amend dams, and ſell Webſter the wool.

But of the milking of Sheep he writeth thns:

Put Lamb fro Ewe, to milk a few,
Be not too bold, to milke and fold,
Five Ewes allow, to every Cow,
Sheep wrigling tail, hath mads without fail.

And thus far *Tuſſer*, beſides whom I finde little diſcourſe about the husbandry of Sheep in any *Engliſh* Poet.

The value of *Engliſh* wool and the uſe thereof.

And for the concluſion or rather farther demonſtration of this part, concerning the quality of our *Engliſh* wool, I can uſe no better teſtimony then that of worthy Mr. *Camden*, in his *Britannia*, for writing of *Buchinghamſhire* he uſeth theſe words, *Hæc tota fere campeſtris eſt, ſolo item argillaceo, tenaci & fœcundo, Pabuloſis pratis innumeros ovium greges paſcit, quarum mollia & tenuiſſima vellera ab Aſiaticis uſq; gentibus expetuntur*; that is to ſay, The whole County of *Buckingham* is of a clammy, champain, fertile ſoil, feeding innumerable flocks of Sheep with his rich and well-growen paſtures or medowes, whoſe ſoft and fine fleeces of wool are deſired of the people of *Aſia*; For we know that ſuch is the trade of Merchandiſe and tranſportation of *Engliſh* cloth, the rare fineneſſe and ſmoothneſſe thereof is admired in *Aſia*; namely, in *Paleſtina*, and other Kingdoms of the

Turk, and therefore they have *Engliſh* houſes of Merchants, both at *Aleppo*, *Tripoli*, and other places. Again ſpeaking of *Lemſter ore*, or *Lemſter* wool in *Herfordſhire*, he writeth thus: *Sed ei precipua hodie gloria eſt a lana in circum vicinis agris (Lemſter ore vocant) cui excepta Apula & Tarentina, palmam deferunt Europei omnes.* The greateſt glory of that ſoil is in their wool, which ariſeth from Sheep, feeding in the fields and paſtures adjoyning thereunto, (which wool they call *Lemſter ore*) and all Chriſtendom yeeldeth praiſe and price unto it next after the *Apulian* and *Tarentinian* wool.

And indeed ſo ſweet is the gain that cometh by Sheep, that in many parts of the Land there is a decay of tillage and people, for their maintenance, and therefore the ſaid Mr. *Camden* ſaith moſt worthily, even like himſelf, that is honeſt and unpartial in all his writings, for in the beginning of his deſcription of *Northamptonſhire*, where I think above all parts depopulation and deſtroying of Towns is moſt plentiful, (ſo that for Chriſtians now you have ſheep, and for a multitude of good houſe-holders, you ſhall have one Shepheard ſwain and his Dog lying upon forty ſhillings a year, or little more) he writeth in the words of *Hythodæus* after the commendation of the Sheep and wool of that Countrey: *Ovibus oppleta & quaſi obſeſſa, que (ut Hythodæus ille dixit) tam mites eſſe tamque exiguo ali ſolebant, nunc (uti fertur) tam edaces atque indomitæ eſſe cœperunt ut homines devorent, ipſos agros, domos, oppida vaſtent, ac depopulentur*: which worlds I cannot better *Engliſh* then in the words of an *Epigrammatarian* in our age, for to this effect, according to my remembrance he writeth;

Sheep have eat up our paſtures, our medowes, and our downes,
Our Mountains, our Men, our Villages and Towns;
Till now I thought the common proverb did but jeſt,
That ſayes a black ſheep is a biting beaſt.

Concerning the goodneſs of *Engliſh* Wool, and the difference of it from others, the reaſon is well given by *Geſner* and *Cardan*: *Lanæ earum molles & criſpæ ſunt, ideoq; nunc ut olim Mileſia celebratur: nec mirum cum nullum animal venenatum mittat Anglia, & ſine luporum metu pecus vagetur: nulli enim in Anglia hodie lupi reperiuntur. Rore cæli ſitim ſedant greges, ab omni alio potu arcentur quod aqua ibi ovibus ſint exitiales*; that is to ſay, The wool of *Engliſh* Sheep is ſoft and curled, and therefore it is now commended as highly as ever was the *Mileſian* wool in ancient time: and not without juſt cauſe, for they are neither annoid with the fear of any venemous Beaſt, nor yet troubled with Wolves, and therefore the ſtrength of their nature and peaceable quiet wherein they live, doth breed in them the better wool; and beſides they never drink, but quench their thirſt with the dew of heaven. And thus much for the diſcourſe of *Engliſh* wool.

The wool of other Countries,

I am never able ſufficiently to deſcribe the infinite commodities that come unto men by wool, both for gardens, for hangings, for coverings, for hats, and divers ſuch other things, and therefore it ſhall not be unpleaſant I truſt unto the Reader, to be troubled a little with a farther diſcourſe hereof, if I blot ſome paper in deſcribing the quality of the beſt wool in other Nations. Firſt of all therefore we are to remember theſe two things, that the beſt wool is ſoft and curled, and that the wool of the old Sheep is thicker and thinner then the wool of the younger, and the wool of the Ram followeth the ſame nature, of whom we will ſpeak more in his ſtory. Only in this place our purpoſe is to expreſſe the examination of wool as we finde it related by Authors, according to their ſeveral Countries. Therefore as we have ſaid already out of Mr. *Camdens* report, the *Tarentinian* and *Apulian* muſt have the firſt place, becauſe the Sheep of thoſe Countries live for the moſt part within doors, and beſides that, are covered with other skins. In *Spain* they make greateſt account of the black wool, and it appeareth by good Hiſtory, both in our *Engliſh* Chronicle and others, that the Sheep of *Spain* were of no reckoning till they were ſtored with the breed of *England*. There is a little Countrey called *Pollentia* neer the Alpes, of the wool whereof *Martial* maketh mention, as alſo of the *Canuſine* red wool, and therefore *Ovis Canuſina* was an Emblem for pretious wool, his Verſes are theſe;

Non tantum pullo lugentes vellere lanas,
Roma magis fuſcis, veſtitur Gallia ruffis,
Canuſinatus noſtro Syrus aſſere ſudet.

We have ſpoken already of the wool of *Iſtria* and *Liburnia*, which if it were not for the ſpinning in *Portugal*, and the Webſters art thereupon, it were no better for cloth then hair. *Strabo* writeth, that the wool of *Mutina*, whereby he meaneth all the Countrey that lyeth upon the *Scutana*, is very ſoft and gentle, and the beſt of *Italy*, but that of *Liguria* and *Millain*, is good for no other uſe but for the garments of ſervants.

About *Padua* their wool is of a mean price, yet they make of it moſt pretious works of Tapeſtry, and Carpets for tables, for that which was rough and thick in antient time was uſed for this purpoſe and alſo to make garments, having the ſhags thereof hanging by it like rugs. There is a City called *Feltrum*, and the wool thereof by the Merchants is called *Feltriolana*, Felt-wool they were wont to make garments hereof neither woven nor ſewed, but baked together at the fire like hats and caps, whereof *Pliny* writeth thus, *Lanæ & per ſe coactæ veſtem faciunt, & ſi addatur acetum etiam ferro* *reſiſtunt, imo vero etiam ignibus noviſſimo ſui purgamento quippe ahenis coquentium extractæ indumentis uſu veniant Gallorum ut arbitror invento, certe Gallicis hodie nominibus diſcernuntur.* Wool hath this property, that if it be forced together it will make a garment of it ſelf, and if Vinegar be put unto it, it will bear off the blow of a ſword, dreſſed at the fire and purged to the laſt, for it being taken off from the brazen coffer whereon it was dreſſed, it ſerved for clothing, being as he thought an invention of the *Gals*, becauſe it was known by *French* names, and from hence we muſt ſee the beginning of our felt-hats. The *Betican* wool is celebrated by *Juvenal*, when he ſpeaketh how *Catullus* fearing ſhipwrack, was about to caſt him out into the water;

Infecit natura pecus, ſed & egregius fons
Viribus occultis & Bæticus adjuvat aer.

Of the colours of Wool.

For the colour of Wool in that Countrey groweth mixed, not by any art, but naturally through their food, or their drink, or the operation of the air. The *Lavoditian* Wool is alſo celebrated, not only for the ſoftneſſe of it, but for the colour, for that it is as black as any Raven, and yet there are ſome there of other colours, and for this cauſe the *Spaniſh* Wool is commended, eſpecially *Turditania*, and *Coraxi* (as *Strabo* writeth) for he ſaith the gloſſe of the Wool was not only beautiful for the purity of the black, but alſo it will ſpin out into ſo thin a thread as was admirable, and therefore in his time they ſold a Ram of that Countrey for a talent. I may ſpeak alſo of the Wooll of *Parma*, and *Altinum*, whereof *Martial* made this diſtichon;

Velleribus primis Appulia; Parma ſecundis
Nobilis, Altinum tertia laudat ovis.

We may alſo read how for the ornament of wool, there have been divers colours invented by art, and the colours have given names to the Wool, as *Simatulis lana*, wool of Sea-water-colour, ſome colour taken from an *Amathyſt* ſtone, ſome from brightneſs or clearneſs, ſome from Saffron, ſome from Roſes, from Mirtles, from Nuts, from Almonds, from Wax, from the Crow, as *Color coraxicus*, and from the purple fiſh, as from the *Colaſſine*, or the *Tyrian*, whereof *Virgil* writeth thus;

Hæ quoq; non cura nobis leviore tuendæ,
Nec minor uſus erit, quamvis Mileſia magno
Vellera mutentur Tyrios incocta rubores.

From hence cometh the chalke colour, the Lettice colour, the Loot-tree root, the red colour, the Azure colour, and the Star colour. There is an herb called Fullers-herb, which doth ſoften Wool, and make it apt to take colour, and whereas generally there are but two colours, black and white that are ſimple, the antients not knowing how to die Wool, did paint it on the outſide; for the triumphing garments in *Homer* were painted garments. The *Phrygian* garments were colours wrought with needle-work, and there was one *Attalus* a King in *Aſia*, which did firſt of all invent the weaving of Wool and Gold together, whereupon came the name of *Veſtis Attalica*, for a garment of cloth of gold.

The *Babylonians* and the *Alexandrians* loved diverſity of colours in their garments alſo; and therefore *Metellus Scipio* made a law of death againſt all ſuch as ſhould buy a *Babyloniſh* garment, that was carpets or beds to eat upon for eight hundred *Seſterces*. The ſhearing of cloth or garments made of ſhorne cloth, did firſt of all begin in the dayes of St. *Auguſtine*, as *Feniſtella* writeth. The garments like poppies had the original before the time of *Lucilius* the Poet, as he maketh mention in *Tarquatus*.

The laſting of Wool.

There was a faſhion in antient time among the *Romans*, that a diſtaffe with Wool upon it, was carryed after Virgins when they were going to be marryed: the reaſon thereof was this (as *Varro* writeth) for that there was one *Tanaquillis*, or, *Caia Cecilia*, whoſe Diſtaffe and Wool had endured in the Temple of *Sangi* many hundered years, and that *Servius Tullus* made him a cloke of that Wool, which he never uſed but in the temple of Fortune, and that that garment afterwards continued 500 and 60 years, being neither conſumed by moths, nor yet growing threadbare, to the great admiration of all which either ſaw it or heard it. And thus much I thought good to adde in this place concerning the diverſity of Wool, diſtinguiſhed naturally according to ſeveral regions, or elſe artificially after ſundry tinctures. Likewiſe of the mixing and mingling of Wool one with another, and diverſities of garments, and laſtly of the laſting and enduring of Wool and Garments, for it ought to be no wonder unto a reaſonable man, that a woollen garment not eaten by moths, nor worn out by uſe, ſhould laſt many hundred years, for ſeeing it is not of any cold or earthly nature, but hot and dry, there is good cauſe why it ſhould remain long without putrifaction: and thus much in ſtead of many things for the Wool of Sheep.

The uſe of Sheep skins.

As we have heard of the manifold uſe of the Wool of Sheep, ſo may we ſay very much of the Skins of Sheep for garments and other uſes: and therefore when the Wool is detracted and pulled off from them, they are applyed to Buskins, Breſt-plates, Shooes, Gloves, Stomachers, and other uſes, for they are alſo dyed and changed by tincture into other colours, and alſo when the

Wool is taken off from them, they dreſſe them very ſmooth and ſtretch them very thin, whereof is made writing parchment, ſuch as is commonly uſed at this day in *England*, and I have known it practiſed at *Tocetour*, called once *Tripontium* in the County of *Northampton*: and if any part of it will not ſtretch but remain ſtiffe and thick, thereof they make writing tables, whereon they write with a pencil of Iron or Braſſe; and afterward deface and raſe it out again with a ſpunge or linnen cloth. Hereof alſo (I mean the skins of Sheep) cometh the coverings of Books, and if at any time they be hard, ſtubborn, and ſtiffe, then they ſoften it with the Sheeps ſewet or tallow.

The bones of Sheep have alſo their uſe and employment for the hafting of knifes. The *Rhætians* of the urine of Sheep do make a kinde of counterfeit Nitre. And *Ruffius* ſaith, that if a man would change any part of his Horſes hair, as on the forehead, take away the black hairs and put them into white, let him take a linnen cloth and wet it in boyling milk of Sheep, and put it ſo hot upon the place that he would have changed, ſo oftentimes together till the hair come off with a little rubbing, afterward let him wet the ſame cloth in cold Sheeps milk, and lay it to the place two or three days together, and the hair will ariſe very white (thus ſaith he;) and there are certain flies or moths which are very hurtful to gardens, if a man hang up the panch of a Sheep, and leave for them a paſſage or hole into it, they will all forſake the flowers and herbs, and gather into that ventricle, which being done two or three times together, make a quit riddance of all their hurts, if you pleaſe to make an end of them.

The Swallows take off from the backs of Sheep flocks of Wool, wherewithal the provident Birds do make their neſts to lodge their young ones after they be hatched. *Ruellius.*

Of the dung of Sheep. With the dung of Sheep they compaſſe and fat the earth, it being excellent and above all other dung neceſſary for the benefit and encreaſe of Corn, except Pigeons and Hens dung which is hotter, and the ſandy land is fitteſt to be amended with Sheeps dung, alſo plants and trees if you mingle therewith aſhes.

The inward qualities of Sheep and their moral uſes. Now we are to proceed to the gentle diſpoſition of Sheep, and to expreſs their inward qualities and moral uſes; and firſt of all conſidering the innocency of this Beaſt, I marvel from whence the *Gortynian Cretian* cuſtom proceeded, which cauſed Adulterers for their puniſhment to ride throughout the whole City crowned with Wool, except that ſo they might ſignifie his tender and delicate effeminacy; and therefore as ſome are crowned with gold in token of virtue and valiant acts, ſo *Hermolaus.* vice (eſpecially the wantonneſs of the fleſh) deſerveth to be crowned with Wool, for the looſeneſs and beaſtlineſs thereof, not becauſe ſuch a crown was a ſufficient puniſhment, for an opprobry and continual badge of ignominy, even as forgerers and perjured perſons ride with papers on their heads, upon bare horſe backs, and ſo forth.

Aratus. By the behaviour of Sheep at their Rutting or Ramming time the Shepherds obſerve tempeſts, rains, and change of weather. If they be very luſtful and leap often upon their females, but if they be ſlow and backward, then is the poor naked man glad, for that thereby he conceiveth hope of a gentle Winter, and temperate weather. Alſo if in the end of Autumn they ſtamp upon the ground with their feet, it betokeneth hard weather, cold Winter, much Froſt and Snow, about the time of the firſt riſing of the *Pleiades* or ſeven Stars. Which thing is thus Poetically expreſſed by *Avienus*;

——— *Si deniq; terram*
Lanigeræ fodiant caput, aut tendantur in arcton,
Cum madidus per marmora turbida condit
Pleiadas occaſus, cum brumæ in frigora cedit
Frugifer Autumnus, ruet æthera concitus imber.

Concerning the ſimplicity of Sheep, I muſt ſay more, and alſo of their innocency, yet the ſimplicity thereof is ſuch, and ſo much, that it may well be termed folly, or *Animal ineptiſſimum*, for *Ariſtotle* writeth thus of it, *Repit in deſerta ſine cauſa, hyeme obſtante ipſum ſæpe egreditur ſtabulo, occupatum a nive, niſi paſtor compulerit, abire non vult, ſed perit deſiſtens, niſi mares a paſtore ducantur, ita enim reliquus grex ſequitur*; that is, Without cauſe it wandereth into deſert places, and in the winter time when the air is filled with cold winds, and the earth hardened with hoare froſtes, then it forſaketh and goeth out of his warm coat or ſtable, and being in the cold Snow, there it will tarry and periſh, were it not for the care of the Shepherd, for he taketh one of the Rams by the horns, and draweth him *in* adoors, then do all the reſidue follow after. They are alſo very obedient to the voice and call of the Shepherds, and to the barking and cry of their Dogs, and no leſſe is their love one toward another, every way commendable, for one of them pityeth and ſorroweth for the harm of another, and when the heat of Sun offendeth them, *Albertus* writeth, that one of them interpoſeth his body to ſhadow the other.

Their Dam or Ewe loveth her Lamb, and knoweth it by ſmelling to the hinder parts, and if at any time the Dam do not love or make reckoning of her young one, they give her the herb Pennywort or Water-wall to drink in water, and then as the *Scholiaſt* affirmeth, natural affection increaſeth in her. Of the fooliſhneſs of Sheep, there was an Emblem to ſignifie by a man riding upon a golden Fleece, one ruled by his ſervant or wife;

Tranat aquas reſidens pretioſo in vellere Phryxus,
Et flavam impavidus per mare ſcandit ovem.
Ecquid id eſt? vir ſenſu habeti ſed divite gaza,
Conjugis aut ſervi quem regit arbitrium.

And therefore *Ariſtophanes* reproving the ſtolidity of the *Athenians*, calleth them Sheep: And *Origen* writing upon *Leviticus*, ſaith; *Ovium immolatio affectuum ſtultorum, & irrationabilium correctio.* The Sacrificing and killing of Sheep, is nothing elſe but the correction of our fooliſh and unreaſonable affections. We have ſhewed already in the ſtory of the Goat, of a Goat that nouriſhed a Wolfs whelps, which in the end did deſtroy her, and the ſelf ſame is aſcribed alſo to a Sheep.

Love and hatred of Sheep.

Ariſtotle.

They obſerve great love and concord with Goats, and live in flocks together, and for this cauſe it happeneth, that more Goats are deſtroyed by Wolves then Sheep, for that the Goats forſake their fellows, and ſtraggle abroad for food, but the Sheep very ſeldom: and it is obſerved, that if a Wolf kill a Sheep, and afterwards any garments be made of the wooll of that Sheep, they eaſily and more ſpeedily breed Lice and vermin then any other, and alſo procure itch in the bodies of them that wear them, whereof *Cardan* giveth this reaſon; *Haud mirum videri debet ovis pellem a Lupo dilaniatæ pruritum movere, nam ob vehementem metum, tum etiam ob contrariam naturam mali afficitur, & ſi mori enim ultimum ſit ſupplicium, magis tamen afficitur corpus in uno quam in altero genere, metuit homo magis in mari fluctuans quam coram hoſtibus.* It ought not (ſaith he) move any man to wonder, that the wooll of a Sheep torn aſunder by a Wolf ſhould beget and breed itch, for that affection ariſeth from both, from the vehemency of fear before it be dead through the ſight and ſenſe of the Wolf, and alſo by reaſon of a contrary nature that is oppreſſed and devoured by another, and although death be the laſt puniſhment, yet we ſee divers affections follow dead carkaſes after death, and as a man is more afraid of the Sea when he is in peril of death therein, then of the face of his enemy, ſo is it in this caſe, betwixt the Sheep and the Wolf.

Cœlius.

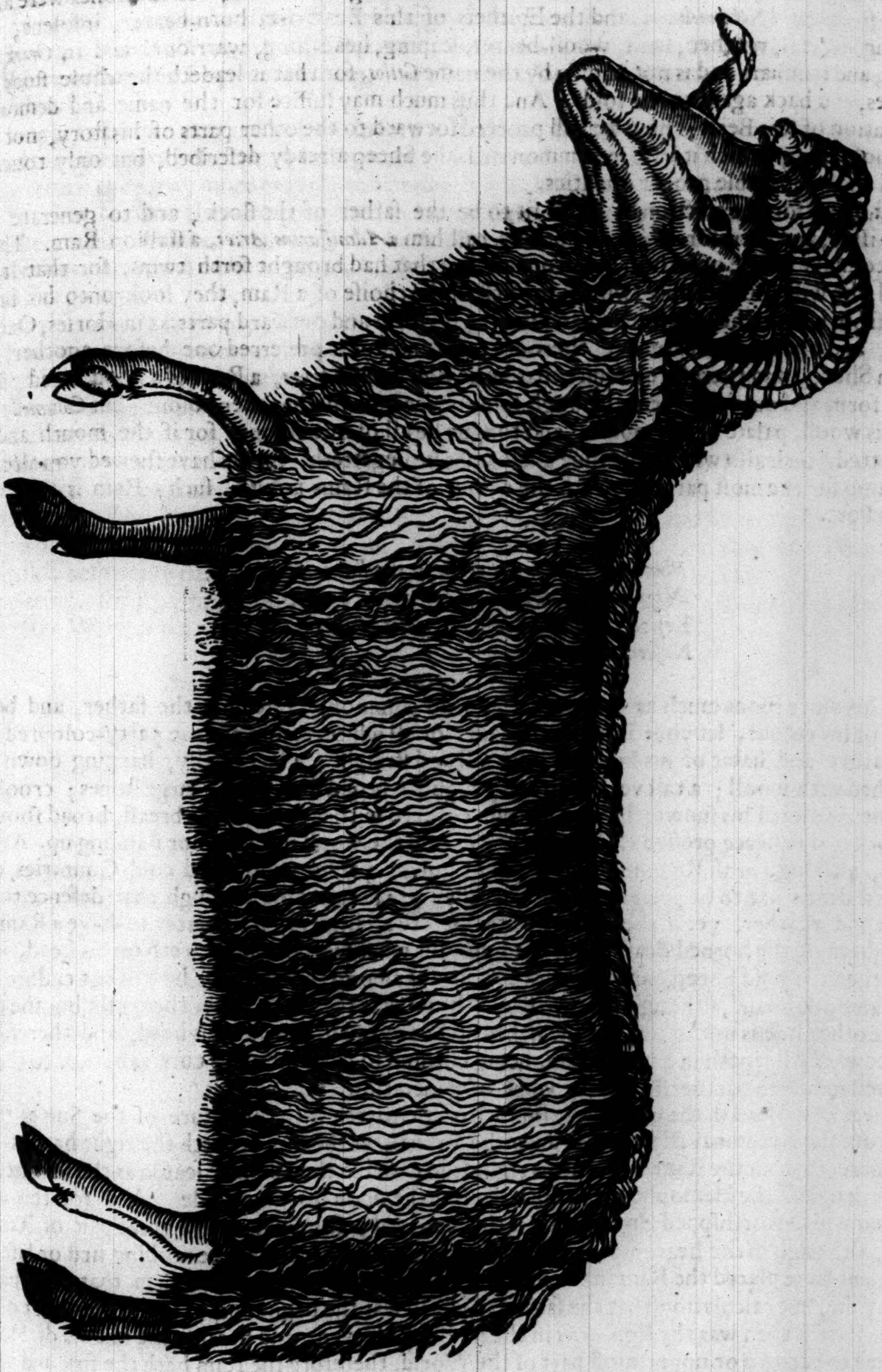
The ſame *Cardan* affirmeth, that Sheep are afraid of Wolfs even after death; for the wooll of a Sheeps skin will fall off in the preſence of a Wolf. Unto this ſubſcribeth *Oppianus*, or rather *Albertus* received it from *Oppianus*, and furthermore (it is ſaid) that if the ſtrings of a Sheeps and Wolfs guts be faſtened to one and the ſame Inſtrument, they will never make good Harmony; and furthermore, if a Drum be made of a Sheeps skin, and another of the Wolfs skin, the Drum of the Sheeps skin will jar, and ſound unpleaſantly in the preſence of the Wolfs skin: but of theſe things I have no certain grounds, only I ſay, there may be natural reaſon from the ſubſtance and matter, both of one and other, why this accident may chance without diſcord and hatred of each other, but from the difference and ſolidity of the matter; as for example; the guts of a Wolf are ſtrong and hard, and will abide greater ſtrain then the guts of a Sheep; if therefore the Muſitian will ſtrain the one like the other, it muſt needs fly aſunder: likewiſe the skin will give a deeper and lowder ſound upon a Drum, by reaſon of the ſubſtance, then a Sheeps: and ſo ſome may ignorantly aſcribe that difference to an antipathy in nature, for as a Candle in the preſence of a great Torch or Fire, giveth leſs light to the eye, ſo doth a drum made of a Sheeps skin, leſs ſound to the ſenſe of hearing, in the preſence of another made of a ſtronger and harder beaſts skin: and to conclude, as a twine thread will not hold ſtretching in the preſence (I mean in compariſon) of a ſilk thread, although it be of the ſame quantity, even ſo will not a Lute ſtring made of a Sheeps gut, in compariſon of another made out of a Wolf. But all the queſtion is, how it cometh to paſs, that one of the skins hanged up in the preſence of the other ſhould be conſumed before other, that is, a Sheeps skin in the preſence of the Wolfs, as a Gooſes skin will looſe the feathers before the Eagles. The anſwer is eaſie, for the dryer that the body is, the leſs excremental humor it containeth: and ſo will laſt the longer, and all wilde ſilveſtrial beaſts are dryer then the tame, modern, and domeſtical, as for example, the Wolf then the Sheep; the Lion then the Dog; the Pheaſant then the Cock; the Eagle then the Gooſe: and for theſe cauſes the skins of the one do waſte before the other, not for fear or ſecret oppoſition, but for want of better enduring ſubſtance.

The Poets do aſcribe unto their Gods *Laneos pedes*, feet made of Wooll, for that they come ſoftly and ſuddenly without noiſe to take vengeance upon malefactors; and therefore when they deſcribe *Saturn* tyed up a whole year with bands of wooll, their meaning is, to ſhew how with patience he forbare his wrath and indignation. Bees are enemies to Sheep; and there are no cattel that do ſo much inrich men as Sheep and Bees.

There is a ſtory in *Suidas* and *Heſychius*, of one *Chryſamis*, who was very rich in Sheep in the Iſland of *Cous*, and there came every year an Eel, and ſtole away his beſt Sheep among all the flock, at laſt he met with it and ſlew it; afterward the ghoſt of the Eel appeared to him in the night, warning him (for fear of other harm) to ſee him buryed. *Chryſamis* neglected it, and therefore he and all his family periſhed. By which ſtory I cannot gueſs any other meaning, but that ſome man ſtole away his Sheep, and for that he took upon him a private revenge, moſt inhumanely ſuffering him to lie unburyed, and ſetting more by a beaſt then the life of a man, as a juſt puniſhment of God he periſhed: and thus I conclude this natural and moral diſcourſe of the Sheep with that fiction of *Eſop*, who writeth, that on a time as the Shepheards were making merry in a Cottage, and eating a Sheep, the Wolf came and looked in, ſaying unto them: *Atqui ego ſi tantum facerem, quantum cieretis tumultum?* If I ſhould eat a Sheep as you do, you would all riſe in an uprore: which is fitted againſt them that make good laws, and obſerve none themſelves.

Of

Of the RAM.



The ſeveral names of Rams.

HAving thus made a general deſcription of the Sheep, wherein we have ſpent no more time then was fit and convenient, we are now forced to the ſeveral ſpecies and kindes, and firſt of all, order and nature teacheth us to diſcourſe of the male, which in our *Engliſh* language is called a Tup or Ram, derived I do not doubt from the *French*, *Ran*, although alſo they call him *Belier*; the *Germans*, *Hoden wider*, and *Hammell*; the *Italians*, *Montone*, and *Ariete*; the *Spaniards*, *Carnero*; the *Helvetians*, *Ramchen*; the *Grecians* in ancient time *Krios*, *Ariacha*, *Ceraſte*, and now in theſe days *Kriare*; the *Hebrews*, *Ail*, or *Eel*; the *Chaldees* plurally, *Dikerin*; the *Arabians*, *Kabſa*; and the *Perſians*, *Nerameiſch*. Now concerning the *Greek* and *Latine* names, there is ſome difference among the learned about their notation, etymology, or derivation; for although they all agree, that *Aries eſt dux & maritus pecorum*, yet they cannot conſent from what root, ſtem, or fountain, to fetch the ſame. *Iſidorus* bringeth *Aries ab aris*, that is, from the Altars, becauſe the ſacrificing of this beaſt was among all other Sheep permitted, and none but this except the Lambs. Others derive it of *Aretes*, which ſignifieth nitieth vertue, becauſe that the ſtrength and vigor of Sheep lyeth in this above all other, for there is in his horns incredible ſtrength, in his minde or inwards part incredible courage and magnanimity, but the trueſt derivation is from the *Greek* word *Arnios*. Some *Latines* call him alſo *Nefrens*, and plurally *Nefrendes*, for diſtinction from the Weather or gelded Sheep, for the ſtones were alſo called *Nefrendes* and *Nebrundines*, and the Epithets of this Beaſt are, horn-bearer, inſolent, violent, fighting, fearful, writhen, ſwift, wooll-bearer, leaping, head-long, warriour, and in *Greek*, meek, gentle, and familiar, and is not known by the name *Ctilos*, for that it leadeth the whole flock to the paſtures, and back again to the folds. And thus much may ſuffice for the name and demonſtrative appellation of this Beaſt; now we will proceed forward to the other parts of his ſtory, not reiterating thoſe things which it hath in common with the Sheep already deſcribed, but only touching his ſpecial and inſeparable proper qualities.

The chief of Rams for breed.

First of all for the election of Rams fit to be the father of the flock, and to generate and increaſe iſſue, and therefore *Varro* and others, call him *Admiſſarius Aries*, a ſtallion Ram. They were wont to make choiſe of ſuch an one from an Ewe that had brought forth twins, for that it is conceived, he will alſo multiply twins; for firſt in the choiſe of a Ram, they look unto his breed and ſtock from whence he is deſcended, and then to his form and outward parts: as in Horſes, Oxen, Dogs, Lions, and almoſt all creatures, there are races and ſtocks preferred one before another, ſo is it alſo in Sheep, and therefore require that he be *Boni ſeminis pecus*, a Ram of a good breed, and next of the form and outward parts, although ſome never look further then colour; but *Columella* adviſeth that his wooll, palate of his mouth, and tongue be all of one colour, for if the mouth and tongue be ſpotted, ſuch alſo will be the iſſue and Lambs he begetteth, for we have ſhewed you already, that the Lamb for the moſt part followeth the colour of the Rams mouth, ſuch a Ram is thus deſcribed by the Poet.

Palladius.

> *Illum autem quamvis aries ſit candidus ipſe,*
> *Nigra ſubeſt udo tantum cui lingua palato,*
> *Rejice, ne maculis infuſcet vellera pullis*
> *Naſcentum.*——

Creſcentius.

And therefore for as much as the young ones do commonly reſemble the father, and bear ſome notes of his colour, let your Ram be all black, or all white, and in no caſe party-coloured; and for the ſtature and habit of his body let it be tall and ſtraight; a large belly, hanging down and well cloathed with wooll; a tail very long and rough; a broad fore-head; large ſtones; crooked winding horns toward his ſnowt, having his ears covered with wooll, a large breaſt, broad ſhoulders and buttocks; his fleece preſſed cloſe to his body, and the wooll not thin nor ſtanding up. And for the horns, although in all Regions Rams have not horns, yet for windy and cold Countries the great horned Beaſts are to be preferred, for that they are better able through that defence to bear off winde and weather, yet if the climate be temperate and warm, it is better to have a Ram without horns, becauſe the horned Beaſt being not ignorant what weapons he beareth on his head, is apter to fight then the pold Sheep, and alſo more luxurious among the Ewes, for he will not endure a rival or companion-husband, although his own ſtrength and nature cannot cover them all: but the pold Ram on the other ſide is not ignorant how naked and bare and unarmed is his head, and therefore like a true coward, ſleepeth in a whole skin, being nothing ſo harmful to his corrivals, nor to the females, but well indureth partnerſhip in the work of generation.

Columella.

Albertus.
The reſemblance betwixt the Sun and the Ram.

There is no Beaſt in the world that ſomuch participateth with the nature of the Sun as the Ram, for from the Autumnal *Æquinoctium* unto the Vernal, as the Sun keepeth the right hand of the Hemiſphere, ſo doth the Ram lie upon his right ſide; and in the Summer ſeaſon as the Sun keepeth the other hand of the Hemiſphere, ſo doth the Ram lie upon his other ſide. And for this cauſe the *Lybians* which worſhipped *Ammon*, that is the Sun, did picture him with a great pair of Rams horns. Alſo, although in the heavenly or celeſtial ſphere or Zodiack there be nothing firſt or laſt, yet the *Egyptians* have placed the Ram in the firſt place, for their Aſtronomers affirm, that they have found out by diligent calculation, that the ſame day which was the beginning of the worlds light on the face of the Earth, then was the ſign *Aries* in the midſt of Heaven, and becauſe the middle of Heaven is as it were the crown or upper-moſt part of the World, therefore the Ram hath the firſt and uppermoſt place, becauſe it is an Equinoctial ſign, making the days and nights of epual length, for twice in the year doth the Sun paſs through that ſign, the Ram ſitting as it were judge and arbiter twice every year, betwixt the day and night.

Macrobius.

Cælius.
The ſign of the Ram in the Zodiack.

Poetical fictions & riddles.

There be Poetical fictions how the Ram came into the Zodiack; for ſome ſay, that when *Bacchus* led his Army through the Deſerts of *Lybia*, wherein they were all ready to periſh for water, there appeared to him a goodly Ram, who ſhewed him a moſt beautiful and plentiful fountain which relieved and preſerved them all; afterward *Bacchus* in remembrance of that good turn erected a Temple to *Jupiter Ammonius*, alſo in that place for ſo quenching their thirſt, placed there his Image with Rams horns, and tranſlated that Ram into the Zodiack among the Stars, that when the Sun ſhould paſs through that ſign, all the creatures of the world ſhould be freſh, green and lively, for the ſame cauſe that he had delivered him and his Hoaſt from periſhing by thirſt, and made him the Captain of all the reſidue of the ſignes, for that he was an able and wiſe Leader of Souldiers. Other again tell the tale ſomewhat different, for they ſay; At what time *Bacchus* ruled *Egypt*, there came to him one

Ammon, a great rich man in *Africa*, giving to *Bacchus* great ſtore of wealth and cattel to procure favour unto him, and that he might be reckoned an inventer of ſome things: for requital whereof *Bacchus* gave him the land of *Thebes* in *Egypt*, to keep his Sheep and Cattel, and afterward for that invention he was pictured with Rams horns on his head, for remembrance that he brought the firſt Sheep into *Egypt*, and *Bacchus* alſo placed the ſign of the Ram in Heaven: Theſe and ſuch like fictions there are about all the ſignes of Heaven, but the truer obſervation and reaſon we have ſhewed before out of the *Egyptians* learning, and therefore I will ceaſe from any farther proſecution of theſe fables.

Didymus.
Ariſtotle.

They ought to be two year old at leaſt before you ſuffer them to joyn in copulation with the Ewes, and for two months before to be ſeparate and fed more plentifully then at other times, that ſo at their return they may more eagerly and perfectly fill the Ewes: and then alſo before copulation, and at the time that they are permitted in ſome Countries they give them Barly, and mix Onions with their meat, and feed them with the herb Salomons ſeal, for all theſe are vertuous to ſtir up and inceaſe their nature. And likewiſe one kinde of the *Satyrium* and ſalt water, as we have ſaid in the diſcourſe aforegoing.

Now, at the time of their copulation they have a peculiar voice to draw and allure their females differing from the common bleating, whereof the Poet ſpeaketh, *Blaterat hinc aries, & pia balat ovis*: This Beaſt may continue in copulation, and be preſerved for the generation of Lambs till he be eight year old; and it is their nature the elder they be, to ſeek out for their fellows the elder Ewes or females, forſaking the younger by a kinde of natural wiſdom.

The beſt time of copulation.

Now concerning the time of their admiſſion to copulation, although we have touched it in the former Treatiſe, yet we muſt add ſomewhat more in this place. In ſome places they ſuffer them in *April*, and ſome in *June*, that ſo they may be paſt danger before Winter, and be brought forth in the Autumn, when the graſs after harveſt is ſweet, but the beſt is in *October*, for then the Winter will be over-paſſed before the Lamb come forth of his dams belly. Great is the rage of theſe Beaſts at their copulation, for they fight irefully till one of them have the victory; and for this cauſe *Arietare* among the Writers is a word to expreſs ſingular violence;

Arietat in portas & duros objice poſtes.

And *Silvis* of *Dioxippus*,

Arietat in primos objicitq; immania membra.

Their rage in Ramming time,

And ſo *Seneca* in his book of Anger, *Magno imperatori antequam acies inter ſe arietarent, cor exiluit*: And indeed great is the violence of Rams, for it is reported that many times in *Rhetia* to try their violence, they hold betwixt the fighting of Rams a ſtick, or bat of Corn-tree, which in a bout or two they utterly diminiſh and bruiſe in pieces.

There is a known fable in *Abſtenius*, of the Wolf that found a couple of Rams, and told them that he muſt have one of them to his dinner, and bad them agree betwixt themſelves, to whoſe lot that death ſhould happen, for one of them muſt die; the two Rams agreed together, that the Wolf ſhould ſtand in the middle of the cloſe, and that they twain ſhould part one into one corner, and the other into the other corner of the field, and ſo come running to the Wolf, and he that came laſt ſhould loſe his life to the Wolfs mercy; the Wolf agreed to this their device, and choſe his ſtanding, while the Rams conſented with their horns, when they came upon him to make him ſure enough from hurting any more Sheep: forth therefore went the Rams, each of them unto his quarter, one into the Eaſt, and the other into the Weſt, the Wolf ſtanding joyfully in the midſt, laughing at the Rams deſtruction; then began the two Rams to ſet forward with all their violence, one of them ſo attending and obſerving the other, as that they might both meet together upon the Woolf, and ſo they did with vengeance to their enemy; for having him betwixt their horns they cruſhed his ribs in pieces, and he fell down without ſtomach to Rams fleſh. This invention, although it have another moral, yet it is material to be inſerted into this place to ſhew the violence of Rams; and from this came ſo many warlike inventions called *Arietes*, wherewithal they puſh down the walls of Cities, as the Readers may ſee in *Vitruvius*, *Valturnis*, and *Ammianus*, for they ſay that the warlike Ram was made of wood, and covered over with ſhels of *Tortoyſes*, to the intent it ſhould not be burned when it was ſet to a wall, and it was alſo covered with the skins of ſack-cloth by rows artificially contrived, within the ſame was a beam which was pointed with a crooked Iron, and therefore called a Ram, or rather becauſe the front was ſo hard that it overthrew walls, when by the violent ſtrength of men it was forced upon them; and whereas it was ſhaped over with Tortoiſe ſhels, it was for the true reſemblance it bare therewith; for like as a Tortoiſe doth ſometime put forth his head, and again ſometime pull it in, ſo alſo doth the Ram ſometime put forth the ſicle, and ſometime pull it in, and hide it within the frame, ſo that by this engine they did not over-turn the walls, but alſo they cauſed the ſtones to flie upon the enemies like thunder-bolts, ſtriking them down on every ſide, and wounding with their fall or ſtroke like the blows of an armed man; and againſt theſe forces there were counter-forces deviſed on the part of the beſieged, for becauſe the greatneſs thereof was ſuch as it could not be moved without ſingular note and oſtentation, it gave the beſieged time to oppoſe againſt it their inſtruments of war for their ſafeguard, ſuch were called

Martial and warlike inventions called Rams.

Culcitra,

Culcitræ, Laquei, Lupi ferrum, made like a pair of tongs, whereby as *Polyænus* writeth, many times it came to paſs, that when the wall was overthrown the enemies durſt not enter, ſaying: *Certe hoſtes ſponte ab obſeſſis deſtructa mœnia metuentes ingredi in urbem non audebant.* And thus much for the force of Rams both their true and natural ſtrength, and alſo their artificial imitation by men.

Now on the other ſide the wiſe ſhepheards want not deviſes to reſtrain the wrath of theſe impetuous Beaſts. For *Epicharmus* the *Syracuſan* ſaith, if there be a hole bored in the backer part of his crooked horn neer his ear, it is very profitable to be followed, for ſeeing that he is a Captain of the flock, and that he leadeth all the reſidue, it is moſt neceſſary that his health and ſafe-guard be principally regarded, and therefore the ancient ſhepheards were wont to appoint the Captain of the flock from the prime and firſt appearance of his horns, and to give him him his name, whereof he took knowledge, and would lead and go before them at the appointment and direction of his Keeper.

When he is angry he beateth the ground with his foot, and they were wont to hang a board of a foot broad, wherein were droven many ſharp nails with the points towards the head, ſo that when the Beaſt did offer to fight, with his own force he woundeth his fore-head. They were wont alſo to hang a ſhrimp at the horn of the Ram, and then the Wolf will never ſet upon their flocks.

Moral uſes of Rams horns.
Ælianus.

And concerning their horns which are the nobleſt parts of their body, moſt regarded, yet I muſt ſpeak more; for there was wont to be every year amongſt the *Indians* a fight betwixt men, wilde Beaſts, Bulls, and tame Rams: and a murtherer in ancient time was wont to be put to death by a Ram, for by art the Beaſt was ſo inſtructed, never to leave him till he had daſhed out his brains.

Plutarch.
Cœlius.

It is reported of a Rams horns conſecrated at *Delos*, brought from the coaſt of the red Sea, that weighed twenty and ſix pounds, being two cubits, and eight fingers in length. There was a Ram in the flocks of *Pericles*, that had but one horn, whereupon when *Lampon* the Poet had looked, he ſaid: *Ex duabus quæ in urbe vigerent factionibus, fore ut altera obſcurata ad unum Periclem, apud quem viſum fore portentum reſideret civitatis potentia,* That whereas there were two contrary raging factions in the City, it ſhould happen that *Pericles*, from whoſe poſſeſſions that monſter came, ſhould obſcure the one, and take the whole government of the City.

Cardan.

It is reported by *Raſis* & *Albertus*, that if the horns of a Ram be buryed in the earth, they will turn in to the herb Spirage; for rottenneſs and putrefaction is the mother of many creatures and herbs. There was, as *Ariſtotle* reporteth in his Wonders, a childe born with a Rams head: and it is affirmed by *Ovid*, that *Medea* incloſed an old decrepit Ram in a brazen veſſel, with certain kinde of medicines, and afterwards at the opening of the ſaid veſſel, ſhe received a young Lamb, bred upon the Metamorphoſis of his body.

The ſtory of *Phryxus* and the Ram with a golden fleece.
Apollonius.

Concerning *Phrixus*, whereof we have ſpoken in the former part of our diſcourſe of the Sheep, there is this ſtory. He was the ſon of *Athaman*, and *Nepheles*: Afterward his mother being dead, he feared the treachery of his mother in law, and ſtep-dame *Inus*, and therefore with his ſiſter *Helle*, by the conſent of their Father, he ſwam over a narrow arm of the Sea upon the back of a Ram, carrying a golden fleece, which before that time his Father had beſtowed upon him. His ſiſter *Helle* being terrified with the great roaring of the water, fell off from the Rams back into the Sea, and thereof came the name of *Helleſpont*, of *Helle* the Virgin, and *Pontus*, the Sea, but he came ſafely to *Colchis* to King *Aetes*, where, by the voyce of a Ram, who ſpake like a man, he was commanded to offer and dedicate him to *Jupiter*, ſurnamed *Phryxus*, and alſo that golden fleece was hanged up and reſerved in the Temple of *Colchis*, until *Jaſon* by the help of *Medea* aforeſaid, did fetch it away, and the Ram was placed among the Stars in his true ſhape, and was called *Phrixeus*, of *Phrixus*, who was the Father of the *Phrygian* Nation.

Of this fabulous tale, there are many explications and conjectural tales among the learned, not unprofitable to be rehearſed in this place. *Cœlius* and *Palæphatus* ſay, that the Ram was a ſhip, whoſe badge was a Ram, provided by *Athaman* for his ſon to ſail into *Phrygia*: and ſome ſay, that *Aries* was the name of a man that was his foſter-father, by whoſe counſel and charge he was delivered from his ſtep-mother *Inus*.

Hermolaus.

Other ſay, that there was a Book of parchment made of a Rams skin, containing the perfect way to make gold, called Alchimy, and thereby *Phrixus* got away. But in *Athens* there was reſerved the Image of this *Phrixus*, offering the Ram (upon which he was born over the Sea) to the God *Laphyſtius*: and whereas there are in *Colchis* certain Rivers out of which there is gold growing, and oftentimes found, whereupon ſome of them have received their name, as *Chryſorrhoa*, and the men of that Countrey ſaid to be greatly inriched thereby, they gave occaſion of all the Poetical fictions about the golden fleece. There are in ſome places of *Africk* certain Sheep, whoſe wooll hath the colour of gold, and it may be, that from this occaſion came the talk of golden fleeces. It is ſaid, that when *Atreus* reigned in *Peloponneſus*, he vowed to *Diana* the beſt whatſoever ſhould be brought forth in his flock, and it fortuned that there was yeaned a golden Lamb, and therefore he neglecting his vow, did not offer it, but ſhut it up in his cheſt. Afterward when he gloryed and boaſted of that matter, his brother *Thyeſtes* greatly envyed him, and counterfeiting love to his wife *Aerope*, received from her the golden Lamb. Then being in poſſeſſion thereof, he contradicted *Atreus* before the people, affirming that he that had the golden Lamb ought to be King, and to reign among them, and ſo laid a wager of the whole Government or Kingdom thereof with *Atreus*,

Apollonius.
Gyraldus.
The fleece of *Colchis.*
Tzetzes.

whereunto he yeelded, but *Jupiter* by *Mercury* diſcovered the fraud, and ſo *Thyeſtes* took him to flight, and the Lamb was commanded to be offered to the Sun, and ſo I conclude this diſcourſe with the verſes of *Martial*:

Mollia Phryxei ſecuiſti colla mariti,
Hoc meruit tunicam qui tibi ſæpe debit.

Tranſmutation of Rams.

And ſeeing that I have entered into the diſcourſe of theſe Poetical fables, or rather riddles, which ſeem to be outwardly cloathed with impoſſibilities, I truſt that the Reader will give me leave a little to proſecute other Narrations, as that *Neptune* transforming himſelf into a Ram, deceived and defloured the Virgin *Biſalpis*, and the Ancients when they ſwore in jeſt and merriment, were wont to ſwear by a Ram, or a Gooſe. When the Gyants waged war with the Gods, all of the Gods (as the Poets write) took unto them ſeveral forms, and *Jupiter* the form of a Ram, whereof *Ovid* writeth, he was called *Jupiter Ammonius*:

——Unde recurvis
Nunc quoq; formatis Lybis eſt cum cornibus Ammon.

Herodotus.

There be ſome that ſay that at what time *Hercules* deſired very earneſtly to ſee *Jupiter*, whereunto he was very unwilling, yet he cut off a Rams head, and pulled off his thick woolly rough skin, and put it upon him, and ſo in that likeneſs appeared to *Hercules*, and for this cauſe the *Thebanes* to this day do not kill rams, but ſpare them like ſanctified things, except one once in a year, which they ſacrifice to *Jupiter*, and ſay, that *Jupiter* was called *Ammonius aries*, becauſe that his anſwers were myſtical, ſecret and crooked, like a Rams horn.

Strabo.

Sacrificing of Rams among the Gentiles.

Now concerning the ſacrificing of Rams, we know that God himſelf in his Word, permitted the ſame to the people of the *Jews*, and therefore it cannot be but material for us to adde ſomething alſo to the diſcourſe before recited in the ſtory of the Sheep. The *Gentiles* when they ſacrificed a Ram, they roaſted his intrails upon a ſpit or broach, and there were certain days of Sacrifice called *Dies Agonales*, wherein the principal Ram of every flock after combate or fighting was ſlain and ſacrificed for the ſafegard of the reſidue to *Janus*, and others by the King:

——Ita rex placare ſacrorum
Numina lanigeræ conjuge debet Ovis.

There was at *Tanagrum* a ſtatue of *Mercury*, carrying a Ram (and therefore he is called the *Kriophoros Hermes*, and by that name was worſhipped of all the *Tanagreans*. Now there was a cunning workman of *Calamis* that made that ſtatue, for they ſay, that when the City was grievouſly afflicted with a peſtilence, *Mercury* by carrying a Ram about the walls, delivered the ſame; and therefore they did not only procure that ſtatue for *Mercury*, but alſo ordained that every year one of their moſt beautiful young men ſhould carry a Sheep on his ſhoulder round about the walls. In *January* they ſacrificed to *Jupiter* a Ram, and in *February* a Weather. *Pliny* writeth a ſtrange Riddle, which is this; *Cinnamomum in Æthiopia gignitur, neq; metitur niſi permiſerit Deus.* There is Cinamon growing in *Æthiopia*, and yet it is not reaped by men, except the God thereof gave permiſſion or leave, whereby ſome underſtand *Jupiter*, whom they called *Sabin*, and the *Latines*, *Aſſabinus*. Now *Pliny* ſaith, that if they had ſacrificed forty and four Oxen, Buck-goats and Rams, with their intrails, they purchaſed leave to gather that Cinamon.

Gyraldus.

Pliny.

When the *Romans* obſerved their *Soli-Taurilia*, they ſacrificed a Bull, a Goat, a Ram, and a Bore, but unto *Jupiter* they held it not lawful to offer a Ram. *Ulyſſes* offered to *Neptune* a Ram, a Bull and a Boar; and to conclude this diſcourſe of the Rams ſacrifices, I finde a ſtory worthy the noting, recorded by *Paulus Venetus*, although it be altogether ſuperſtitious and full of humane blindeneſs and error.

There is a City of *Tartary* called *Sachion*, the Inhabitants whereof are *Mahometans* and Idolaters, aſſoon as any of them have a ſon born, he preſently commendeth him to one Idols tuition and protection or other: and that year together with his young Son he nouriſheth a Ram tamed in his own houſe: at the years end, he offereth his Son and the Ram at the next feſtival day of that Idoll which he hath choſen; that is, he preſenteth his childe and killeth his Ram, with great ſolemnity and ceremony in the preſence of all his kindred, friends, neighbours, and acquaintance, and maketh earneſt requeſt to that Idoll to protect his ſon, and to guide and govern him all the time of his life, and therefore he hangeth up the fleſh of that Ram in his preſence, and afterward they take away again the ſame fleſh, and carry it to another private place, wherewith the ſaid Father and all the Kindred aſſembled do make a great and rich feaſt, reſerving the bones for religions ſake: And thus we ſee how miſerable men beguiled with error, do not only make ſhew of falſe Religion, but alſo play the hypocrites in that which is erroneous, thinking it an eaſie thing to deceive Almighty God.

Concerning other things of Rams, they concur with that which is ſaid already of Sheep in general, except their medicinal parts, which I will reſerve to the due place: And herein adde one thing more of the horns of the *Rhætian* Rams, and in ſome places of *Italy*, namely, that after they be five, ſix, or ſeaven year old, they bring forth under their great horns two other little horns, and that theſe Rams are weak of body, and have but rough and courſe wooll. In other places, if at any time they chance to bear moe horns then two, it is prodigious and unnatural. And thus much of the Ram.

Of the *WEATHER-SHEEP*.

ALthough this Beaſt have all things in common with the Ram aforeſaid, for he is a male-ſheep, and in nature differeth not from him, but only by the art of man, I might very well have confounded and conjoyned his ſtory with the precedent: but ſeeing that all Nations do diſtinguiſh him from the Ram, becauſe of one property or defect of him, for that he is not fit for generation, I will follow the ſtream, and not ſtrive againſt my Authors, nor ſwarve from their method. Therefore in *Latine* it is call'd *Vervex quaſi verſa natura*, for that his natural ſeed is changed and turn'd in him, for his ſtones are taken away, and ſo he remaineth libbed and gelded, being an Eunuch among Beaſts. The *Grecians* call him *Krion Tomian*, that is, a gelded Ram, for they have not one word to expreſs him. The *Latines* do alſo call him *Sectarius*; and *Feſtus* rendreth this reaſon thereof, *Quia eum ſequantur agni*, becauſe the little Lambs love his company and follow him: and indeed by reaſon of his unaptneſs to generation, the Ewes forſake his company, and the Rams cannot endure him, therefore in ſtead of other he aſſociateth himſelf with the Lambs. In ſome parts of *Germany* they call him *Friſchling*, and alſo *Hammel*, which word ſeemeth to be derived from the *Arabian* word *Leſan Alhamel*, a Rams tongue. The *Italians* call him *Caſtrone*, *Caſtrato*, and *Montone*; the *French*, *Mouton*; and the *Illyrians*, *Beram*.

Concerning the gelding of Rams or making of Weathers, I have not much more to ſay, then that which is already expreſſed in the general tractate of the Sheep, and for the manner I do refer the Reader, not only to that part, but alſo to the diſcourſe of the Calf and Oxe, wherein I truſt he ſhall finde ſatisfaction for this point, whether he will do it by a knife, by reed, by finger, or by hammer, for all thoſe ways are indifferently proponed. The beſt time for the gelding of Rams, ought to be in the wane or decreaſe of the Moon, at five months old, ſo as he may neither be troubled with extremity of cold or heat. And if it be not libbed at that age, but prolonged till two, three or four year old; we have ſhewed already the *Engliſh* manner for knitting of Rams.

Being thus libbed or knit, their horns grow not ſo great as the other males ungelded, but their fleſh, and lard, or ſewet, is more acceptable then of any other Sheep whatſoever, except they be over old, for that it is neither ſo moiſt as a Lambs, nor yet ſo ranck as a Rams or Ewes, whence *Baptiſta Fiera* made theſe verſes;

Anniculus placeat, vel ſi ſine teſtibus agnus,
Pinguior eſt hædo quin calet olla, vores.
Hunc amo ſi duri per paſcua montis anhelat.
Maluero, ſi auri vellere dives erit.

Platina alſo writeth thus of the fleſh of Weathers, *Vervecum caro ſatis ſalubris eſt & melior quam agnina, calida enim & humida habetur, ad temperamentum tendens, illa vero plus humiditatis quam caliditatis habet.* That is to ſay; The fleſh of Weathers is wholeſome enough, and better then the fleſh of Lambs, becauſe it is hot and moiſt, but that hath in it more moiſture then heat, and therefore this tendeth to a better temperament. *Munſter* writeth, that the Inhabitants and people of *Valuis* take this fleſh of Weathers, and ſalt it, afterward dry it in the air where no ſmoke may come unto it; afterward they lay it up in ſtraw, and ſo hold it much more delicate then that which is raiſed in the ſmoke.

As the fleſh of theſe Beaſts groweth the better for their gelding, becauſe they live more quietly and peaceably, for that their fore-heads grow weak and tender, and their horns ſmall, ſo alſo it is reported that their tails grow exceeding large and fat. In ſome Regions, as in *Arabia Fælix*, and other places, and becauſe the report ſhould not ſeem feigned by me, I will deſcribe it in the Authors own words, *Paulus Venetus* writeth thus of the Weathers of *Scythia*, and in the Region *Camandu*, ſubject to the great *Tartar*. *In Tartariæ Regione Camandu arietes non minores aſinis ſunt, cauda tam longæ & latæ, ut triginta librarum pondus æquent.* In *Camandu* a Territory of *Tartaria* there are Rams like Aſſes in ſtature and quantity, whoſe tails are ſo long and broad, that they ballance in weight thirty pound. *Vartoman* writeth; *In ædibus regis Arabum fuiſſe præpinguem vervecem, cujus cauda adeo obeſa fuit, ut libras quadraginta appenderet, & prope Reame urbem Arabiæ fælicis, vervecum genera reperiuntur, quorum caudam animadverti pondo eſſe librarum quadraginta quatuor, carent cornibus, adeoq; eſſe obeſi & pingues ut vix incedere poſſunt. Circa Zeclam urbem Æthiopiæ verveces non nulli ponderoſiſſimas trahunt caudas, utpote pondo ſedecim librarum. His caput & collum nigricant, cæteris albi ſunt. Sunt etiam verveces prorſus albicantes, quorum cauda cubitalis eſt longitudinis modo elaboratæ vitis, palearia ut bubus à mento pendent, quæ humum prope verrunt.* That is to ſay, In the houſe of the King of *Arabia*, there was a Weather very fat, whoſe tail weighed forty pound, and near unto *Reamia*, a City in *Arabia Fælix*, there are a breed or race of Weathers, whoſe tails for the moſt part weighed four and forty pound. They want horns, and are ſo fat that they can ſcarcely go. Alſo about the City *Zecla* in *Æthiopia*, the Weathers draw long tails, weighing ſixteen pound. Whereof ſome have their heads and neck black, and all the other parts of their body white, ſome of them again all white, having a tail but of a cubit long, like a curious and planted Vine, their creſts and hair hanging from their chin to the ground. Thus far of the *Arabian* Weathers. Of the *Indians* he writeth thus in another place: *Circa Tanaſuri urbem Indiæ tanta eſt pecudum copia ut duodeni verveces ſingulo aureo vænierunt. Conſpiciuntur illic verveces alii, cornua haud abſimilia damis habentes, noſtris longe majores ferocioreſque. Caudæ vervecum in peregrinis regionibus tantæ ſunt, quantus nullus apud nos vervex. Contingit hoc quia humidiſſimum hoc animal, & inter quadrupedia frigidiſſimum, cumq; cætera oſſa extendi nequeant, ne pinguedine immenſa, extenſis etiam oſſibus & nervis non parum, quæ humida natura velut piſces ſemper incremento apta ſunt.* That is, About the City *Tarnaſar* in *India*, there is ſuch great plenty of Cattel, that they ſell twelve Weathers for a noble, and yet there are Weathers which have horns like to the horns of Deer, being longer, greater, and fiercer then our Rams, and their tails in forein and ſtrange Countries are fatter then any Weathers among us; and the reaſon hereof is, becauſe it is the moiſteſt and coldeſt creature among all four-footed Beaſts: and becauſe the bones cannot be enlarged to receive that moiſture, and leſt that it ſhould deſtroy the Beaſt by exuperance and abundance, therefore nature hath provided this remedy to ſend it forth into the tail, whereby in fleſh and fat it groweth exceedingly, the bones and nerves whereof are not a little extended, for they are alſo of a moiſt nature like fiſhes, and therefore apt to encreaſe and grow immeaſurably.

Thus much ſay they of the tails of Weathers, now I know ſuch is the ſolidity of divers Readers and people, that for theſe reports, they will preſently give both theſe Authors and me the Whet-ſtone for rare untruths and fictions; I do not marvail, for ſuch (I dare aſſure my ſelf) do not believe all the miracles of Chriſt, having ſhort and ſhallow conceipts, meaſuring all things by their own eyes, and becauſe they themſelves are apt to lye for their profit, therefore they are not aſhamed to lay like imputations upon honeſt men, yet I could ſhew unto them as great or greater wonders in our own Nation (if they were worthy to be confuted) for which other Nations account us as great liers (nay as theſe Infidel fools) do them, and yet they are common among us.

The uſe of the ſeveral parts of this Beaſt, is no other then that which is already reported of the Sheep and Ram, and therefore I will not ſtand to repeat that which is ſo lately related, and for the remedies or medicinal vertues, I finde few that are ſpecial except thoſe which are common between this and other of his kinde. It ſeemeth by *Plautus*, that a Weather Sheep is accounted the moſt fooliſh of all other, a coward and without courage, for ſpeaking of a mad dotiſh fellow, he writeth thus: *Ego ex hac ſtatua vervecea volo erogitare, meo minore quod ſit factum filio.* That is, I will demand of this blockiſh Weathers picture, (meaning his fooliſh ſervant) what is become of my younger ſon.

Theſe were among the Pagans ſacrificed, but not among the *Jews*, for they have not ſo much as a name for it, and it is probable, that ſeeing it is an unperfect Beaſt, God forbade it into his ſanctuary: when the *Gentiles* brought a Lamb at the ſide of a Weather to be ſacrificed, they called them *Ambegni*, and ſo alſo a Lamb and an Ox. *Alciatus* maketh this pretty emblem of a Weather which with a Hedg-hog is the Arms of *Millain*, wherewithal I will conclude this diſcourſe;

Bituricis vervex, Heduis dat ſucula ſignum.
At populis patriæ debita origo meæ eſt.
Quam Mediolanum ſacram dixere puellæ
Terram: nam vetus hoc Gallica lingua ſonat.

Culta Minerva fuit, nunc eſt ubi numine Tecla
Mutato matris virginis ante domum.
Laniger huic ſignum ſus eſt, animalq; biforme.
Acribus hinc ſetis, lanitio inde levi.

Feſtus.

Of the LAMB.

THe Lamb is diverſly tearmed by the *Hebrews*, as is already ſhewed in the ſtory of the Sheep, (in ſome part) and now more particularly, *Seb* ſignifieth a Lamb, *Keſeb* and *Kebes*, a Lamb of a year old, alſo *Gedi*, according to the opinion of *David Kimbi*; in *Greek*, *Arnion*, and *Arna*, and *Amnos*, and at this day *Arni*; the *Italians*, *Agna*, *Agno*, *Agnello*; the *Spaniards*, *Cordero*; the *French*, *Agneau*, and *Aguelet*; the *Germans*, *Lamb*, and *Lamblein*, and as the firſt year we call it in *Engliſh* a Lamb, ſo the ſecond year a Hog, Lam-hog, or Teg if it be a female, the third year Hoggrils and Theives: the *Latines* calls it *Agnus*, of the *Greek* word *Agnos*, *caſtus quia eſt hoſtia pura & immolationi apta*, That is chaſte, for that a Lamb is pure and clean, and fit for ſacrificing.

The ſeveral names.

And the common Epithets expreſſing the nature of this Beaſt are theſe, rough, yeanling, weak, unripe, ſucking, tender, butting, fat, milk-eater, merry, ſporting, bleating, affable or gentle, field-wanderer, horn-bearer, horn-fighter, unarmed, vulgar, wooll-skinned, wooll-bearer, wanton, meek, delicate and fearful: and all theſe are the Epithets of a male Lamb, but of the female I finde theſe following; dumb, ſnow-white, neat, young, fearful, black, tame, humble, and tender, and the *Grecians*, *Hedypnous*, becauſe of the ſweet ſmell that is found in them when they are young and ſuck their dams.

We read that the Lambs of *Africk*, both males and and females, are yeaned with horns, the reaſon whereof is ſhewed in another place, and it is a common and natural thing to them all aſſoon as they are fallen out of their dams belly, they preſently leap and run about their dams, and alſo learn to know them by whom they are nouriſhed, according to the ſaying of *Lucretius*;

Ariſtotle.
Ælianus.
Of the meek diſpoſition of Lambs.

Præterea teneri tremulis in vocibus hœdi,
Corniferas norunt matres, agniq; petulci.

S. *Ambroſe* writeth thus of the inclination of a Lamb to his mother, and the love of her milk. *Agnus ſimpliciſſimus ovium recognoſcit vocem parentis, cum a matre quandoq; aberrat, frequenter eam balatu excitat, multiſq; licet verſetur in millibus ovium, feſtinat ad eam: nam quamvis cibi & potus deſiderio tenetur tranſcurrit tamen aliena ubera, licet humore lactis gravida exundent, ſoliuſq; materni lactis fontes requirit.* The Lamb is a moſt ſimple Beaſt, and erreth many times from his mothers ſides, having no other means to provoke his mother to ſeek him out but by bleating; for in the midſt of a thouſand Sheep it diſcerneth the voyce of his parent, and ſo haſteneth to her when it heareth her; for ſuch is the nature of this poor Beaſt, that although there be many other Ewes which give ſuck, yet they paſs by all their udders to taſte of their mothers fountains, and the Ewe knoweth her young one by ſmelling to the backer part: the Lamb all the while it ſucketh waggeth and playeth with the tail. When the Lamb is newly faln, in ſome Countries they put them up cloſe into a ſtable for a day, or two, or three, till they grow ſtrong, and are well filled with Milk, and know their Dams, and ſo long as the Rams feed with the females they keep in the Lambes, that ſo they may be clear day and night from all violence of the Rams, for at night they lodge ſingle and alone by their dams ſides. The like regard is to be had if they do not ſuck their mothers, they muſt anoint their lips with butter or Hogs-greaſe and milk, and for two months after their yeaning it is not good to rob them of any milk, but ſuffer them to ſuck all that their Dams can breed, for ſo their Lambs will grow more ſtrong, and alſo their wooll more fine. And when they are to be weaned, they muſt firſt of all be brought out of love of their mothers milk, leſt after their ſeparation they languiſh, and loſe all natural Joy, whereby they are never likely to come to good: afterward let them be herded or drove to field, but after their yeaning it is profitable when they are a week old to give them Salt, and ſo the ſecond time after they be fifteen days old. It is never good to nouriſh the firſtling or firſt Lamb of an Ewe, for that commonly they are weaker and more tender then any other, but the beſt to be nouriſhed are twins.

Didymus.

Varro.

They are alſo the beſt and ſtrongeſt which are bred in the Spring time, and much fatter, and more able then thoſe which are yeaned in the Autumn. And yet there are ſome that affirm, that they which are bred in the Winter are fatter then thoſe which are bred in the Summer, for if ſtrength of nature be able to live out the Winter at the firſt yeaning, much more will they be able to endure when they are elder: in the firſt ſucking of a Lamb, the beeſtings muſt be milked out, for they are apt to fall into many diſeaſes, ſuch as are already mentioned in the diſcourſe of the Sheep: generally to preſerve them in health, they give them Ivy when they are vexed with an Ague, and ſeparate them from the Ewes, leſt by ſucking they infect their mothers, then muſt they be milked alone, and their milk mixed with rain water, and ſo given to the ſick Lamb, and if they will not take it willingly, then infuſe it into her throat with a horn, and if they be troubled with Scabs, take Hyſop and Salt, of each an equall quantity; and if the mouth be broken out and bliſtered, then rub the afflicted place therewith, afterward waſh them with Vinegar, and then anoint them with liquid Pitch and Hogs greaſe; there muſt be alſo a care had to keep them from Lice.

Pliny.

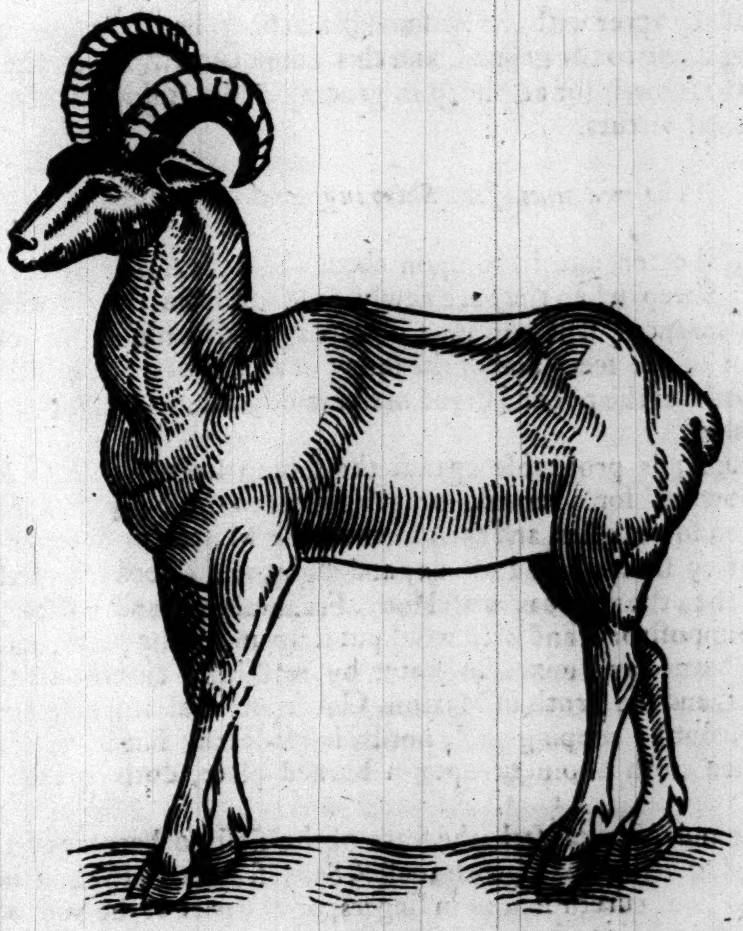
Democritus.

Concerning the uſe of their ſeveral parts, we have already ſhewed in the ſtory of Sheep, and therefore we need not proſecute it in this place. Their skins are fitter to clothe men, then the skins of their dams, and therefore the *Hebrews* ſay that they are fitteſt for the garments of young men, for they encreaſe their ſtrength and natural vigor. The Skinners make great account of theſe Lambskins, and uſe them for the linings of many garments, ſuch as are killed they call the skins of ſlaughter-lambs. The beſt are brought out of *Italy* and *Apulia*, and all thoſe parts which are beyond *Rome*; *Narbon*, and *Spain*, yeeld plentiful ſtore of black Lambs, and their skins are ſold by Merchants: and white skins are plentiful in *England*.

Their fleſh is nouriſhable and convenient for food, but yet inferiour to Weather Mutton, for that it containeth more moiſture then heat. To conclude this diſcourſe of the Lamb, the greateſt honour thereof is, for that it pleaſed God to call his bleſſed Son our Saviour by the name of a Lamb in the Old Teſtament, a Lamb for Sacrifice, and in the New Teſtament, ſtiled by *John Baptiſt, The Lamb of God that taketh away the ſins of the world.* There is a proverb in *Greek*, *Arnia ſoi lelaleken agnus tibi locutus eſt*, A Lamb hath ſpoken this unto you, and it was a proverbial ſpeech to expreſs a divine Revelation of ſome buſineſs, that men cannot attain unto by ordinary and common means, becauſe either it is concealed, or elſe it concerneth things to come. For it is reported by *Suidas*, that once in *Egypt* there was a Lamb that ſpake with a mans voice, upon the Crown of his head was a regal Serpent having Wings, which was four cubits long, and this Lamb ſpake of divers future events.

The like is ſaid of another Lamb that ſpake with a mans voice, at what time *Romulus* and *Remus* were born, and from theſe miraculous events, came that common proverb: and ſo for this ſtory I will conclude with the verſe of *Valerius*: *Aſpera nunc pavidos contra ruit agna leones.* There is in *Moſcovia* neer *Volga*, a certain Beaſt of the quantity and form of a little Lamb, the people call it *Boranez*, and it is reported by *Sigiſmundus*, in his deſcription of *Moſcovia*, that it is generated out of the earth like a reptile creature, without ſeed, with dam without copulation, thus liveth a little while and never ſtirreth far from the place it is bred in, I mean it is not able to move it ſelf, but eateth up all the graſſe and green things that it can reach, and when it can finde no more, then it dyeth.

Of the MUSMON.



I Have thought good to reſerve this Beaſt to this place, for that it is a kinde of Sheep, and therefore of natural right and linage to this ſtory, for it is not unlike a Sheep, except in the wool which may rather ſeem to be the hair of a Goat; and this is the ſame which the antients did call *Umbricæ oves*, *Umbrian Sheep*, for that howſoever it differeth from Sheep, yet in ſimplicity and other inward gifts it cometh nearer to the Sheep. *Strabo* calleth it *Muſmo*, yet the *Latins* call it *Muſimon.* This beaſt by *Cato* is called an Aſſe, and ſometimes a Ram, and ſometimes a Muſmon. The picture which here we have expreſſed, is taken from the ſight of the Beaſt at *Caen* in *Normandy*, and was afterwards figured by *Theodorus Beza*. *Munſter* in his deſcription of *Sardinia* remembreth this beaſt but he ſaith that it is ſpeckled, whereat I do not much wonder, ſeeing that he confeſſeth that he hath all that he wrote thereof, by the Narration of others.

Pliny.

Some ſay it is a Horſe or a Mule, of which race there are two kinds in *Spain*, called by the *Latins*, *Aſturcones*, for they are very ſmall; but I do not wonder thereat, ſeeing that thoſe little Horſes or Mules are called *Muſimones*, becauſe they are brought out of thoſe Countries where the true *Muſmones* (which we may interpret wilde Sheep, or wilde Goats) are bred and nouriſhed. There are of theſe Muſmons in *Sardinia*, *Spain*, and *Corſica*, and they are ſaid to be gotten betwixt a Ram and a Goat, as the *Cinirus* betwixt a Buck-goat and an Ewe. The form of this Beaſt is much like a Ram, ſaving that his breſt is more rough and hairy: his horns do grow from his head like vulgar Rams, but bend backward only to his ears: they are exceeding ſwift of foot, ſo as in their celerity they are comparable to the ſwifteſt Beaſt. The people of thoſe Countries wherein they are bred, do uſe their skins for breaſtplates. *Pliny* maketh mention of a Beaſt which he called *Ophion*, and he ſaith he found the remembrance of it in the *Grecian* books, but he thinketh that in his time there was none of them to be found in the world: herein he ſpeaketh like a man that did not know GOD, for it is not to be thought, that he which created ſo many kinds of beaſts at the beginning, and conſerved of every kinde two, male and female at the generall deluge, would not afterward permit them to be deſtroyed till the worlds end, nor then neither: for ſeeing it is apparent by holy Scriptures, that after the world ended, all creatures and beaſts ſhall remain upon the earth, as the monuments of the firſt ſix days works of Almighty God, for the farther manifeſtation of his glory, wiſdom, and goodneſs, it is an unreaſonable thing to imagine that any of them ſhall periſh in general in this world. The *Sardinians* call theſe beaſts, *Muſflo*, and *Erim Muſflo*, which may eaſily be derived from *Ophion*, therefore I cannot but conſent unto them, that the antient *Ophion* is the Muſmon, being in quantity betwixt a Hart and a Sheep, or Goat. in hair reſembling a Hart, and this Beaſt at this day is not found but in *Sardinia*. It frequenteth the ſteepeſt mountains, and therefore liveth on green graſſe and ſuch other hearbs. The fleſh thereof is very good for meat, and for that cauſe the inhabitants ſeek after it to take it. *Hector Boethius* in his deſcription of the *Hebridian* Iſlands ſaith, that there is a Beaſt not much unlike to Sheep, but his hair betwixt a Goats and a Sheeps, being very wilde and never found or taken but by hunting, and diligent inquiſition. The name of the Iſland is *Hietha*, and the reaſon of that name is from his breed of Sheep called *Hierth* in the Vulgar tongue, yet thoſe Sheep agree with the Muſmon in all things but their tails, for he ſaith, that they have long tails reaching down to the ground, and this name cometh from the *German* word *Herd* a flock, and thereof *hirt* cometh for all Sheep in general. Now followeth the concluſion of their ſtory with their medicinal virtues.

The medicines of the Sheep in general.

Galen.

The bodies of ſuch as are beaten, and have upon them the appearance of the ſtripes, being put into the warm skins of Sheep when they are newly puld off from their backs, eateth away the outward pain and appearance, if it continue on a day and a night. If you ſeethe together a good ſeaſon the skin of the feet, and of the ſnowt of an Ox or a Sheep till they be made like glew, and then taken forth of the pot and dryed in the windy air, is by *Silvius* commended againſt the burſtneſs of the belly.

Pliny.

The bloud of Sheep drunk, is profitable againſt the falling ſickneſs: Alſo *Hippocrates* preſcribeth this medicine following, for a remedy or purgation to the belly, firſt make a perfume of Barly ſteeped in oyl upon ſome coles, and then ſeethe ſome Mutton or Sheeps fleſh very much, and with decoction of Barley ſet it abroad all day and night, and afterward ſeethe it again and eat or ſup it up warm, and then the next day with Hony, Frankincenſe, and Parſely, all beaten and mingled together, make a Suppoſitory, and with wool put it up under the party, and it ſhall eaſe the diſtreſs. The ſame fleſh burned and mixed in water by waſhing, cureth all the maladies or diſeaſes ariſing in the ſecrets, and the broth of Mutton, Gooſe, or Veal, will help againſt the poiſon by biting if it be not drawn out by cupping glaſſe nor by horſe-leach. The ſewet of a Sheep melted at the fire, and with a linnen cloth anointed upon a burned place, doth greatly eaſe the pain thereof.

The Liver with the ſewet and *Nitre* cauſeth the ſcars of the fleſh to become of the ſame colour that it was before the wound, it being mixed with toaſted Salt, ſcattereth the bunches in the fleſh, and with the duſt of womens hair, cureth fellons in fingers, or any part of the bodies. The ſewet of Sheep or Goats, being mingled with the juyce of Rheniſh wine grape, and ſhining horſe flies, doth without all ſcruple or doubt, eaſe the pain of the milt, if it be anointed thereupon. The fat of Sheep doth very eaſily expell the roughneſs of the nails.

Marcellus.

The ſewet of Sheep or any other ſmall beaſt, being mixed with the herb called Melander, and pounded with Alum, afterward baked together, and wrought into the manner of a Sear-cloth, doth very much eaſe thoſe which are burned by fire in any parts of their body, being well applyed thereto. The ſewet of a Sheep being alſo applyed to thoſe which have kibes in the heels, or chilblanes in their feet, will preſently heal them.

The ſewet of a Sheep mixed with womens hair which is burnt to powder, doth very effectually cure thoſe which have their joynts or articles looſe, being anointed thereupon.

Pliny.

The fat of Goats or Sheep moiſtned with warm water, and boiled together, being anointed upon the eyes, doth ſpeedily cure all pains, ſpots, or blemiſhes in the ſame whatſoever. The fat of a Sheep boyled and drunk with ſharp wine, is an excellent remedy againſt the cough. The ſame medicine is alſo effectually uſed for the expelling of horſes coughes. The ſewet of a Sheep being boyled with ſharp wine, doth very ſpeedily cure the obſtruction of the ſmall guts, bloudy flux, and any cough of what continuance ſoever.

Marcellus.

The ſame being in like manner drunk while it is hot, is accounted for an excellent remedy againſt the Colick paſſion. The ſewet of a Sheep, or of a Male goat, being mingled with the fime or dung of a Female-goat, and Saffron, doth very effectually cure thoſe which are troubled with the Gowt or ſwelling of the joynts, being anointed upon the place ſo grieved. It is alſo reported that the outward ſewet of Sheep (between the fleſh and the skin) between the hinder legs, is very wholeſom for the curing of ſundry pains and diſeaſes.

Dioſcorides.

Sheeps ſewet or the fat of any other ſmall beaſt being gathered from the reins, mixed with ſalt, and the duſt of a pumice ſtone, being applyed unto the yard of any man, doth ſpeedily cure all pains, aches, or ſwellings therein. The fat of Sheep which is gathered from the caul or cell, being mingled with the aforeſaid medicines do heal all other pains in the privy members of man or woman whatſoever. The ſame ſewet doth ſtay the great exceſs of bleeding in the noſe, being anointed thereupon.

Sheeps ſewet being mixed with Gooſe greaſe and certain other medicines, being taken in drink, doth help abortments in women. The liver of a Sheep is accounted an excellent remedy againſt the ſhedding of the hair on the eye lids, being rubbed thereupon. The ſame being alſo baked or boyled, is accounted very profitable for Sheeps eyes, if it be well rubbed thereon. The marrow of Sheep is very good to anoint all aches and ſwellings whatſoever.

Hippocrates. The horns of Sheep or of Goats pounded to powder, mingled with parched Barley which hath been well ſhaled, and altogether mixed with Oyl, being taken in a certain perfume, doth help Women of their ſeconds, and reſtoreth to them their menſtruall fluxes. Sheeps hornes burned and beaten in wine untill they be tempered like a pill, the right foot being anointed with the right horn, and the left foot with the left, will mitigate the ſorrow of thoſe which are very ſore pained and troubled with the gowt.

Raſis. Rheumatick, or watry eyes, being anointed with the brains of Sheep are very ſpeedily and effectually cured. The brains of the ſame beaſt is exceeding profitable for the breeding of young childrens teeth, being anointed upon the gums. The lungs or lights of ſmall beaſts, but eſpecially of a Ram, do reſtore the true skin and colour of the fleſh, in thoſe whoſe bodies are full of chops and ſcars.

Pliny. The lungs or lights of the ſame beaſt concocted upon the uppermoſt skin of any man, and applyed very hot thereunto, do diminiſh the black or blew places therein, which have been received by the occaſion of any ſtripes or blows.

Marcellus. The lungs of Sheep being new taken out of their bellies, and applied while they are hot unto beaten or bruiſed places, doth quite aboliſh the ſignes thereof, and in ſhort ſpace procure remedy. The lungs of Sheep or ſmall Cattle being roaſted and taken by any man before he drinketh, will reſiſt all kind of drunkenneſs.

The lungs of Sheep taken out of their bellies, and bound about the heads of thoſe which are phrenſie while they are hot, will very ſpeedily eaſe them of their trouble. The lungs of Sheep being hot and bound to the head, is accounted very profitable for thoſe which are troubled with the peſtiferous diſeaſe called the Drowſie evill.

The lungs of Sheep being boiled with Hemp-ſeed, ſo that the fleſh be eaten, and the water wherein it is ſod be drunk, doth very effectually cure thoſe which are grieved with excoriations in their bellies, and the bloody flux. The lungs of Sheep being applyed while they are hot, doth heal the Gowt.

Hippocrates. *The liver* of white Sheep well boiled, made moiſt with water, throughly beaten and applyed unto *the* eye-lids, doth purge Rheumatick eyes, and cauſe them to be of a more clear and ample ſight. If a woman bearing young, ſhall be puffed up with winde, give her the liver of a Sheep or Goat beaten into ſmall powder while it is hot, being pure and without mixture for four dayes together to eat, and let her drink only wine, and this will very ſpeedily cure her.

Pliny. The gall of a Sheep mingled with hony, healeth the Ulcers of the ears, and procureth eaſie hearing. The gall of a Sheep mingled with ſweet wine, if it be tempered in the manner of a glyſter, and afterwards rubbed upon the ear-laps, the ulcers being quite purged, will procure a ſpeedy cure and remedy. The gall of the ſame beaſt diſtilled with a womans milk, doth alſo moſt certainly heal their eares which are broken within, and full of mattery corruption.

Albertus. The gall of a Sheep being mixed with common oyl, or oyl made of Almonds, doth alſo heal the pains of the ears, being powred therein to. Cankers, or the corroſion of the fleſh, being anointed with the gall of a Sheep, is very ſpeedily and manifeſtly cured. The Dandraffe or ſcurfes of the head being anointed with the gall of a Sheep mixed with fullers-earth which is hardned together while the head burneth, are very effectually aboliſhed, and driven quite away.

Pliny. The gall of little cattle, but eſpecially of a Lamb, being mixed with hony is verily commended for the curing of the Falling evill. The milt of a Sheep new taken out by magicall precepts is accounted very good for the curing of the pain in the milt, he ſaying which may be healed that he maketh a remedy for the milt. After theſe things the Magicians command that the grieved party be included in his Dortor or Bed-chamber, and that the doors be ſealed up, and that a verſe be ſpoken thrice nine times. The milt of a Sheep being parched and beaten in wine, and afterward taken in drink, doth reſiſt all the obſtructions or ſtopping of the ſmall guts. The ſame being uſed in the like manner is very medicinable for the wringing of the guts.

Marcellus. The duſt of the uppermoſt of a Sheeps thigh, doth very commonly heal the looſeneſs of the joints; but more effectually if it be mixed with wax. The ſame medicine is made by the duſt of Sheeps jawes, a Harts horn, and wax mollified or aſſwaged by oil of Roſes. The upper parts of the thighs of Sheep decocted with Hemp-ſeed, do refreſh thoſe which are troubled with the bloudy flux, the water whereof being taken to drink. For the curing of a Horſe waxing hot with wearineſs and longitude of the way; mingle Goats or Sheeps ſewet with Coriander, and old dill, the Coriander being new gathered, and diligently pounded in the juice of Barley, and ſo give it throughly ſtrained for three dayes together.

The huckle-bone of a Sheep being burned and beaten into ſmall duſt, is very much uſed for the making of the teeth white, and healing all other pains or aches therein.

Galen. The bladder of a Goat or Sheep being burned and given in a potion to drink, made of Vinegar and mingled with water, doth very much avail and help thoſe which cannot hold their water in their ſleep. The skins which cometh from the Sheep at the time of their young, doth very much help very many enormities in women, as we have before rehearſed in the medicines ariſing from Goats.

The milk of Sheep being hot, is of force againſt all poyſons, except in thoſe which ſhall drink a venemous fly called a Wag-leg, and Libbards bane. Oatmeal alſo doth cure a long lingring diſeaſe, a pinte of it being ſodden in three cups of water, until all the water be boyled away: but afterwards you muſt put thereunto a pinte of Sheeps milk or Goats, and alſo Hony every day together.

Some men do command to take one dram of Swallows dung in three cups full of Goats milk or Sheeps milk before the coming of the quartern Ague. Goats milk, or Sheeps milk being taken when it is newly milked from them, and gargarized in the mouth, is very effectual againſt the *Pliny.* pains and ſwellings of the Almonds. Take a pinte of Sheeps milk, and a handful of ſifted Aniſeeds, and let them ſeethe together, and when it is ſomewhat cold let it be drunk, and it is very good to *Marcellus.* looſen the belly. Medicines being made of Goats milk and Sheeps milk, and ſo being drunk, is very good for the ſhortneſs of breath.

A hot burning gravel ſtone being decocted in Sheeps milk, and ſo given to one that hath the *Furnerius.* Bloudy flix, is very profitable to him. Goats milk or Sheeps milk given alone luke-warm, or ſod- *Creſcentien.* den with Butter, is very profitable to thoſe that are brought very weak with the paſſions of the ſtone, and fretting of the guts. To waſh ones face with Sheeps milk, and Goats milk, is very good to make it fair and ſmooth. Evenings milk of Sheep, that is, the laſt milk that they give that day, *Pliny.* is very good to looſen the belly, and to purge choler. The hairs of the head of a Dog burned into aſhes; or the gut of the privy place ſodden in Oyl, is a very good and ſoveraign remedy for the looſeneſs of the fleſh about the nails, and for ſwelling of fleſh over them, being anointed with Butter made of Sheeps milk and Hony. An Oyl ſodden in Hony, and Butter made of Sheeps-milk, and Hony melted therein, is very profitable to cure ulcers. Old Cheeſe made of Sheeps milk, is very good to ſtrengthen thoſe which have been troubled and made weak with the Bloudy flix. Again, old Cheeſe made of Sheeps milk, taken in meat, or ſcraped upon it, and being drunk with Wine, doth eaſe the paſſion of the Stone.

Marcellus. There was a certain Phyſitian being skilful in making medicines, dwelling in *Aſia* by *Helleſpont*, which did uſe the dung of a Sheep waſhed and made clean in Vinegar, for to take away Warts and knots riſing on the fleſh like Warts, and kernels, and hard ſwellings in the fleſh. Alſo he did bring Ulcers to cicatriſing with that medicine which were blaſted or ſcalded round about, but he did mingle it with an emplaiſter made of Wax, Roſin, and Pitch.

Dioſcorides. The dung of Sheep alſo doth cure puſhes riſing in the night, and burnings or ſcaldings with fire, *Pliny.* being ſmeared over with Vinegar without the commixture of any other things. The dung of Sheep being mixed with Hony, doth take away ſmall bumps riſing in the fleſh, and alſo doth di- *Vegetius.* miniſh proud fleſh: and alſo it doth cure a diſeaſe called an emmot, as *Raſis* and *Albertus* ſay. The dung that is new come from the Sheep being firſt worked in thy hands, and applyed after the manner of an emplaiſter, doth eat away any great warts growing in any part of thy body. The dung of a Sheep being applyed to thy feet, doth conſume or waſte away the hard fleſh that groweth thereon.

Sheeps dung doth alſo cure all kinde of ſwellings that are ready to go into Carbuncles. It is alſo good being ſodden in Oyl and applyed after the manner of an emplaiſter, for all new wounds made with a ſword, as *Galen* ſaith:

Pliny.

Aut ſi concluſum ſervavit tibia vulnus,
Stercus ovis placidæ junges, adipeſq; vetuſtos,
Pandere quæ poterunt hulcus, patuloq; mederi.

The dung of Sheep and Oxen being burned to powder, and ſmeared with Vinegar, is very good againſt the bitings and venemouſneſs of Spiders; And again it is very effectual being new come from them, and ſodden in Wine againſt the ſtingings of Serpents. Sheeps dung being mixed with Hony, and applyed to Horſes whoſe hoofs are broken, is very effectual.

The dung of Oxen and Sheep being burned to powder, and intermixed therewith, is very effectual againſt Cankers, and alſo the bones of the Lambs thighes, being burned into aſhes, is very profitable to be applyed to thoſe ulcers which cannot be brought to cicatriſe. Alſo Sheeps dung being made hot in a Gally pot, and kneaded with thy hands, and afterwards applyed, doth preſently ceaſe the ſwellings of wounds, and doth purge and cure Fiſtulas, and alſo diſeaſes in the eyes.

The Oyl of Cypreſs and Hony, is very effectual againſt *Alopecia*, that is, the falling off of the hair. An emplaiſter made of Sheeps dung, and the fat of a Gooſe and a Hen is very effectual againſt hair riſing in the root of the ear, as *Raſis* and *Albertus* ſay. Sheeps dung being applyed hot, is very effectual againſt the ſwellings of womens paps or dugs.

Obſcurus. Sheeps dung being put into the decoction of Wood-bine, or Hony and water, and ſo drunk, is *Raſis.* very profitable againſt the Yellow-jaunders. If the Spleen be outwardly anointed with Sheeps dung and Vinegar, it doth leſſen the riſing of it. The dung of Oxen and Sheep which is very moiſt, doth *Pliny.* eaſe all manner of Gouts The thin or outmoſt skin which is taken from the privy part of Sheep, is very profitable againſt the diſeaſe called the flowers in Women. The dung alſo hath the ſame operation. The Urine of Sheep is very profitable againſt the Hydropſie being mixed with Hony. *Albertus.* But *Raſis* ſaith otherwiſe, which is, that the dung being drunk with Hony is available againſt the Dropſie.

Pliny. To take the weight of a penny of Ox dung and Sheeps dung, and a grain of Myrrh, and two ounces and a half of Wine, doth ſtay or reſiſt the coming of the Kings evill. The filth which is taken out of the ears of theſe beaſts is ſaid to be very effectual againſt the flowers. It doth make a barren woman to conceive with child alſo, as *Serenus* ſaith in theſe Verſes:

Pendentem ſpumam molli deducet ab ore,
Aut ovis in ſtabulis fractas cum ruminat herbas,
Atq; illam memini miſto potare falerno.

Sylvaticus. *Columella.* The ſweat of a Horſe being made warm and mixed with Vinegar, is very convenient againſt the Falling ſickneſs, and is uſed againſt venemous bitings. And alſo the ſweat of Sheep is very much profitable unto it. If the hoof or anckle-bone of an Ox chance to be cut with a Plough-ſhare, Pitch and fat with Sulphur is very good, but you muſt roul round about the wound Wool.

Unwaſhed Wool doth very much profit thoſe that are frenzie being applyed with a fume that ſtoppeth humors from coming down from the head. Unwaſhed Wool being bound upon the forehead, is very good for the wateriſh humor that floweth out of the eyes. Unwaſhed Wool being heated in Vinegar, and preſſed into the ear, and afterwards the top of the ear being ſtopped with that Wool, will by little and little eaſe the pains in the ears. Unwaſhed Wool dipped in Oyl of Roſes and put into the Noſtrils doth ſtay bleeding at the Noſe. Unwaſhed Wool being plucked from the privy parts of Sheep and moiſtned in Oyl of Roſes, is very good to ſtop the fluxes of bloud in any part of mans body.

Marcellus. Unwaſhed Wool being tyed on the outſide of the knuckles or joynts, doth ſtop the bloud or humors from running to and fro. It is alſo ſaid to be very good being dipped in Hony (and ſo rubbed upon the teeth or gums) for to make one breath or gaſpe eaſier. Unwaſhed Wool being ſmeard over with Hony, and rubbed upon the teeth, doth make them look white preſently after. Unwaſhed Wool with a little ſalt put to it and tyed cloſe in a linnen cloth, and ſo ſcorched and beaten to powder, is very good to keep the teeth from pain, being rubbed upon them.

Galen. Unwaſhed Wool being mixed with Niter, Brimſtone, Oyl, Vinegar, and with Tar, being applyed twice a day, doth eaſe all pains of the knuckles and anckles. Sheeps dung and other things with unwaſhed Wool is very effectuall againſt the ſtone in the bladder, as it is ſpoken above in the cure and remedies of Sheeps dung. Unwaſht Wool doth cure all the diſeaſes in the privy parts of men or women being applyed thereunto. The black Wool of Sheep, is very profitable for all ſwellings in the ſtones or cods of men. The gall of Buls put upon unwaſhed Wool, is very profitable for the flowers of women. Unwaſhed Wool being applyed unto thoſe parts that are dead, doth very much good unto them.

White fleeces of Wool being either applyed alone, or with Brimſtone, is very good for hidden pains and griefs. Fleeces of Wool given in a fume with Brimſtone, is very good for the remedy of the Kings evill. Wool being dyed of a purple colour, and ſo applyed, is very good againſt the pains of the ears. There are moreover very many remedies made againſt diſeaſes by unſhorn Wool, beſides the expelling of cold, being taken in Oyl, Wine, or Vinegar, for as much as the ſame being applyed to the members which are out of joynt, or to any pains in the Nerves, doth very ſpeedily and tenderly heal the ſame.

Sheeps Wool being mixed with Herbgrace and Sheeps greaſe, is very much applyed unto thoſe which are bruiſed, or have hard ſwellings in any parts of their body. Unwaſhed Wool being often put into the ſores which are bitten by mad Dogs, doth perfectly cure them in ſeven dayes.

Pliny. Sheeps wool in cold water doth bring remedy unto thoſe whoſe skin is looſe about the Nailes. The ſame being ſteeped in hot Oyl may be well applyed unto moiſt or running ſores: but mingled with Hony is very medicinable for old ſores or feſters; and ſteeped in Wine, Oyl, Vinegar, or cold water, doth heal any new wound which ſeemeth to bring the wounded party in danger of death. *Dioſcorides* doth alſo affirm that Sheeps wool being unwaſhed is curable for all kinds of wounds whatſoever.

Serenus. The ſame is very much applyed unto thoſe whoſe bones are bruiſed or broken, if it be mixed with the brains of a wanton Dog, and bound hard upon the grieved place in a linnen cloth. The *Carthaginian* Shepherds do uſe the unwaſhed Wool of Lambs of the age of four years, for the curing of the Temples, or the crown of the head. If the plough ſhare chance to hurt the huckle-bone or hoof of an Ox take hard Pitch and Bacon greaſe mingled with Brimſtone, and rowled in unwaſhed Wool, and mark the wounded place with all theſe together with a fiery hot iron, and it will bring preſent help and remedy.

Unwaſhed Wool being taken in ſome certain perfume doth cure thoſe which are Franticke, and reſtore them to their former wits. Spleen-wort being boyled in Hony and mixed with unwaſhed Wool which was ſteeped in Oyl or Wine, is very good for the aforenamed diſeaſe, being bound about the forepart of the head in a broad linnen cloth. Sheeps wool being alſo applyed in the ſame manner, is an excellent cure for thoſe which are troubled with a certain watery rheum running in the eyes, as alſo the ach in the forepart of the head.

Galen. Unwaſhed wool boyled in Vinegar and applyed unto the eares, doth expell all filth or moiſture therein, and the iſſue thereof being afterwards ſtopped with the ſame kind of wool, is very ſpeedily cured. Sheeps wool is alſo very good and effectual for the curing the pains of the ears which are but new coming upon them. Unwaſhed wooll being mixed with Oyl of Roſes and put into the Noſtrils of any man, the ears being ſtopped cloſe with the ſame kind of wool, will ſtay the iſſuing of the bloud at the Noſe, how fluent ſoever it be.

The ſame being alſo ſteeped in Oyl and put in the Noſe, doth reſtrain the bleeding thereof. Wool being plucked or wreſted from the back of Sheep, and kept unwaſhed, doth cohibite the aboundance of bloud, being ſteeped in pure liquid Oyl of Roſes. The ſame being taken from the back of a Ram, doth ſtay over much bleeding at the Noſe, the joynts of the fingers being bound as hard as poſſible can be ſuffered. Unwaſhed wool ſteeped in Hony and rubbed upon the teeth or gums, doth make the breath of any man more ſweet and delightful then it hath been accuſtomed. The ſame being uſed in the ſaid manner, doth procure a very great whiteneſs and clearneſs in the teeth.

Unwaſhed Wool being parched and bound in a linnen cloth, a third part or portion of ſalt being afterwards added thereunto, and all beaten together in ſmall duſt or powder, and rubbed upon the teeth, will keep them from any pain or grief therein. Unwaſhed Wool being dipped in Nitre, Brimſtone, Oyl, Vinegar and liquid Pitch, being all boyled together, doth aſſwage all pains in the hanches or loins whatſoever, being twice a day as hot as poſſibly may be ſuffered applyed thereunto. Sheeps dung mingled with unwaſhed wool and certain other things, is very much applyed againſt that troubleſom and painful diſeaſe called the ſtone or gravel.

Unwaſhed wool in cold water, doth cure diſeaſes in the privy parts of any man or woman whatſoever. The wool of black Sheep is commonly reported to be very commodious and helpful for thoſe whoſe Cods or ſtones are much ſwelled. The gall of an Ox being mixed with unwaſhed wool, doth help the purgation or menſtrual fluxes of women; but *Olympies* the *Thebane* affirmeth, that Hyſop and Nitre ought to be mixed with this wool for the helping of the ſame. Unwaſhed wool being applyed unto the ſecret parts of women, doth cauſe a dead childe to come forth. The ſame doth alſo ſtay the iſſues of women. The pure or clear fleeces of Sheep either applyed by themſelves, or mingled with Brimſtone, do cure all hidden or ſecret griefs whatſoever: and *Pliny* Serenus. commendeth them above all other medicines whatſoever. Fleeces of wool mingled with quickſilver, are very profitable to be taken for the ſame diſeaſes in certain perfumes. The root of a Mallow being digged up before the riſing of the Sun, and wrapped in undyed wool, doth cure the Wens or mattry impoſtumes of thoſe Sheep which have lately brought forth young. Sheeps wool being Pliny. dyed in purple colour, doth very much profit the ears: but ſome do ſteep it in Vinegar and Nitre, to make the operation more effectual.

The duſt of wool being burnt, doth bring forth the matter or corruption lying hid under ſcabs, reſtrain the ſwellings in the fleſh, and bringeth all Ulcers to a ſcar. Wool being burnt hath a ſharp force, and likewiſe hot together with the ſlenderneſs of the parts, it doth therefore very ſpeedily clenſe and purge the ſores in the fleſh, which are moiſt and too much full of matter. It is alſo put in drying medicines. It is burned as if there were many other things in it, filling a new pot, which may be covered with a cover which is bored through with many holes like unto a ſive. The powder of unwaſhed Wool is anointed upon divers ſores and is very curable for them as bruiſed, new wounded, and ſores half burnt, and it is uſed for the curing of the diſeaſes in the eyes, as alſo in the eaſing of the Fiſtulaes and corrupt mattery ſores in the ears. The power Galen. of the powder of unwaſhed wool is clenſing, and it doth very effectually purge the eye-lids or cheek-bals. It doth alſo clenſe and cure for the moſt part all diſeaſes, as *Serenus* ſaith in theſe Verſes;

Succida cum tepido nectetur lana Lyæo,
Ambuſtæve cinis complebit vulneris ora,
Aut tu ſuccoſæ cinerem perducito lanæ.

The hairs which grow about the ſecret hole of Sheep being burned, beaten and drunk in ſweet wine, doth help the ſhortneſs of the breath, and eaſe the purſineſs of the ſtomach. The wool of a little ſheep being pulled from betwixt his thighes and burnt, and afterwards dipped in Vinegar, doth very ſpeedily cure thoſe which are troubled with the head ach, being bound about the temples. The duſt of Sheeps fleeces is very medicinable for the curing of all diſeaſes in the genital parts whatMarcellus. ſoever. The duſt of Sheeps wool, doth heal all paſſions in Cattle. The *Grecians* Plaiſter (called *Enneapharmacum*) conſiſted of nine ſeveral things, and amongſt the reſt of unwaſhed wool. The filth which ſticketh to the Sheeps wool and groweth thereunto, from which the thing which the *Grecians* call *Oeſypon* is made, hath the force of digeſtion like unto Butter, and alſo a like ability of concoction.

In a certain medicine of *Andromachus*, for the curing of the diſeaſe of the ſecret parts, unwaſhed wool is added to the reſt: but *Lepas* (as *Galen* ſaith) for unwaſhed wool doth add Gooſe greaſe in the ſame quantity. Some do alſo for unwaſhed wool uſe the marrow of a young calf, and apply it in the aforeſaid manner; but thi ſunwaſhed wool is termed of the *Grecians*, *Aeſypum*, and therefore being by divers Authors ſet down diverſly concerning the making and virtue thereof, of, I have thought good to ſet down the trueſt and excellenteſt way to make the ſame (as *Dioſcorides*) whom in this I ſuppoſe beſt to follow, reporteth; Firſt to take new ſhorn wool which is very ſoft, and not trimmed with ſope-weed, and waſh it with hot water, then to preſſe all the filth forth of the ſame, and caſt it into a Cauldron which hath a broad lip, and afterwards to pour the water in, and to ſtir it up and down with a certain inſtrument with ſuch great force as it may foam again, or with a wooden rod ſtill greatly to turn and trouble it, ſo that the filthy froath or ſpume may more largely be gathered together, afterwards to ſprinkle it over with Sea water, and the fat remaining which did ſwim upon the top, being gathered together in an earthen veſſel, to powr the water into the Cauldron: then muſt the froath be powred again into the Sea water; and laſtly, taken out again: this is ſo often to be done, that the fat being conſumed, there will not any froath be left remaining: the *Aeſypus* then being gathered together, is to be mollifyed with mens hands, and if there be any filth therein, it muſt out of hand be taken away, and all the water by little and little excluded, and being freſh poured in, let it be mingled with ones hands, until the *Aeſypus* being touched with the tongue of any one, may lightly bind it, but not ſavour either ſharp or tartly, and the fat may ſeem very white, and then let it be hid in an earthen veſſel, but let there be great care had they be done in the hot ſun. But there are ſome which uſe another manner of way to make the ſame, which is this, to cleanſe the fleeces, and waſh away all filth, and preſſe it forth of the ſame, and boyl them in water over a ſoft fire in a brazen veſſel, then to waſh the fat which ſwimmeth on the top being gathered together with water, and being ſtrained in another platter which may have ſome hot water in it to hide or overcaſt it with a linnen cloth, and lay it forth in the ſun until it be very white and thick enough.

Some alſo do uſe another way, as this, to waſh the fat being ſtrained with cold water, and to rub it with their hands, not much otherwiſe then women do a ſear-cloth, for by that means it is made more white and purer.

There is yet another kinde of way to make *Aeſypus*, deſcribed by *Aetius* in theſe words, Take (ſaith he) the greaſie Wool which groweth in the ſhoulder pits of Sheep, and waſh them in hot water, being thick and ſoft, and ſqueeze all the filth forth of the ſame, the waſhing whereof you ſhall put in a veſſel of a large mouth or brim, caſting afterwards hot water in the ſame, then take the water in a cup, or in ſome other ſuch like inſtrument, and pour it in and out, holding it up very high until there come a froath upon it, then ſprinkle it over with Sea water, if you ſhall get any, (if not, with ſome other cold water, and ſuffer it to ſtand ſtill; when it ſhall wax cold take that which ſhall flow on the top away with a ladle, and caſt it into any other veſſel, afterwards having put a little cold water in it, ſtir it up and down with your hands, then having poured out that water, put new hot water in it, and repeat again the ſame thing all together, which we have now taught, until the *Aeſypus* be made white and fat, containing no impure or filthy thing in it at all, then dry it in the ſun, being hid for ſome certain days in an earthen veſſel and keep it. But all theſe things are to be done when the Sun is very hot, for by that means it will be more effectual and whiter, and not hard or ſharp.

There are moreover ſome which gather it after this manner; They put new ſhorn wool which is very filthy and greaſie in a veſſel which hath hot water in it, and burn the water that it may ſomewhat wax hot, afterwards they cool it, and that which ſwimmeth above in the manner of fat, they ſcum it off with their hands, and put it away in a veſſel of Tin, and ſo do fill the veſſel it ſelf with rain water, and put it in the Sun covered with a thin linnen cloth, and then we muſt moiſten it again, and put up the *Aeſypus*, for it hath ſtrength mollifying and releaſing with ſome ſharpneſs, but it is counterfeited with wax, ſewet, and Rozen, and it is ſtraight ways perceived, and foraſmuch as the true *Aeſypus* reſerveth the ſcent of the unwaſhed wool, and being rubbed with any ones hands is made like unto Ceruſe, or white lead.

Even the filth and ſweat of ſheep, cleaving to their wool, hath great and manifold uſe in the world, and above all other that is moſt commended which is bred upon the *Athenian* or *Grecian* Sheep, which is made many ways, and eſpecially this way; Firſt they take off the wool from thoſe places where it groweth, with all the ſewet or filth there gathered together, and ſo put them in a brazen veſſel over a gentle fire where they boyl out the ſweat, and ſo take of that which ſwimmeth at the top, and put it into an earthen veſſel, ſeething again the firſt matter, which fat is waſhed together in cold water, ſo dryed in a linnen cloth is ſcorched in the Sun until it become white and tranſparent, and ſo it is put in a box of Tin. It may be proved by this, If it ſwell like the ſavour of ſweat, and being rubbed in a wet hand do not melt, but wax white like White lead, this is moſt profitable againſt all inflamation of the eyes, and knots in cheeks, or hardneſs of skin in them.

Of this *Aeſypus* or unwaſhed Wool the *Grecians* make great account, and for the variety of dreſſing or preparing it, they call it diverſly, ſometime the call it *Oeſupon Pharmaicon*, ſometime *Oeſupon Kerotoeide*, or *Keroten*, ſometime *Oeſupon Hugron*, and ſuch like. Of it they make Plaiſters to aſſwage the *Hypochondrial* inflamations and ventoſity in the ſides. Some uſe *Aeſopus* for *Oeſypus*; but ignorantly, and without reaſon, it is better to let it alone, but in the collection hereof it muſt be taken from the ſound and not from the ſcabby Sheep. But when we cannot come by the true *Oeſypus*, then in ſtead thereof we may take that which the Apothecaries and Ointment-makers do ordain; namely, *Meliloti unc.* 4. *Gardamoni unc.* 2. *Hyſopi herb. unc.* 2. with the unwaſhed Wool taken from the hams or flanks of a Sheep. *Myrepſus* uſed this *Oeſypus* againſt all Gowts and aches in the legs or articles, and hardneſs of the ſpleen. *Galen* calleth it *Jus lane*, and preſcribeth the uſe of it in this ſort; Make (ſaith he) a Plaiſter of *Oeſypus* or *Jus lane* in this ſort, Take Wax, freſh greaſe, *Scammonie*, old Oyl, one ounce of each, of Fenny-greek ſix ounces, then ſeethe or boyl your oyl with the *Jus lane*, and Fenny-greek very carefully, until it equal the oyl, and be well incorporated together, and then again ſet it to the fire, with the preſcription aforeſaid; and alſo he teacheth how to make this *Jus lane*, for (ſaith he) take unwaſhed Wool and lay it deep in fair water until it be very ſoft, that is by the ſpace of ſix days, and the ſeventh day take it and the water together, that ſeethe well, taking of the fat which ariſeth at the top, and put it up as is aforeſaid: theſe things ſaith *Galen*.

Dioſcorides. The uſe of this by reaſon it is very hot, is to diſplay Ulcers and tumors in wounds, eſpecially in the ſecrets and ſeat, being mixed with Melilot and Butter, and it hath the ſame vertue againſt running ſores. The ſame alſo with Barly meal and ruſt of iron, equally mixed together, is profitable againſt all ſwelling tumors, Carbuncles, Tetters, Serpigoes, and ſuch like, it eateth away all proud fleſh in the brims of Ulcers, reducing the ſame to a natural habit and equality, alſo filling up the ſore and healing it, and the ſame vertue is by *Diſocorides* attributed to Wool burnt, alſo in bruiſes upon the head when the ſkin is not broken, a Poulteſs made hereof, is ſaid by *Galen* to have excellent force and vertue. The ſame mingled with Roſes, and the oar of braſſe (called *Nil*) cureth the holy fire, and being received with Myrrh ſteeped in two cups of wine, it encreaſeth or procureth ſleep, and alſo is very profitable againſt the Falling-ſickneſs. And being mixed with Corſick Hony, it taketh away the ſpots in the face, becauſe it is moſt ſharp and ſubtile, whereunto ſome add Butter; but if they be whealed and filled with matter, then prick and open them with a *Marcellus.* needle and rub them over with a dogs gall or a Calfs gall mingled with the ſaid *Oeſypus*, alſo being inſtilled into the head with oyl, it cureth the Megrim, and furthermore it is uſed againſt all ſoreneſs of the eyes, and ſcabs in their corners, or upon the eye-lids, being ſod in a new ſhell: and the ſame vertue is attributed to the ſmoke or ſoot thereof, if the eye-brows or eye-lids be anointed therewith; mixed with Myrrh and warmed, it is thought that it will reſtore the hair that is wanting and fallen off: but *Marcellus* preſcribeth it in this manner, You muſt take *Oeſypus* or ſweat of Sheep from under the wool of their ſhoulders, and adding unto it a like quantity of Myrrh, beat them together in a morter, and with a warm cloth anoint the bare places.

If there be any bruiſe in the eyes, then you muſt anoint them firſt with Gooſe greaſe, and the bloud of a Mallard, and afterward with the *ſweat* of a Sheep, and the ſame cureth all Ulcers in the mouth, ears, and genitals, with Gooſe-greaſe. This is alſo mixed with a Sear-cloth, and laid againſt the Phthiſis (as *Actius* writeth) with a moiſt cloth againſt the Pluriſie, alſo a Plaiſter made hereof with Gooſe greaſe, Butter, Allum, and the brain of a Gooſe, is very profitable againſt the pains in the reins, and all other infirmities of the back, and for the ſame cauſe it is applyed to women, for it provoketh their monthly courſes, and alſo cauſeth an eaſie deliverance in childe-birth, it healeth the Ulcers in the ſecret and privy parts of men and women, and all inflamation in the ſeat, eſpecially being mixed with butter, Gooſe greaſe, and Melilot: and ſome add thereunto the oar of Braſſe *Pliny.* and Roſes. If there be a Carbuncle in the privy parts, take this *Oeſypus* with Hony and the froath of lead, alſo white lead, womens milk, and this Sheeps ſewet, cureth the Gowt, at the leaſt marvailouſly aſſwageth the pain thereof, and ſome Phyſitians for this evill take Greaſe, Gooſe greaſe, and the fat of Buls, added to *Oelypus*, alſo unwaſhed wool with the gall of a Bull laid to a womans ſecrets, helpeth her monthly purgation, and *Olimpias* added thereunto *Nitre*. The dung which cleaveth to Sheeps tails made into ſmall bals, and ſo dryed, afterward beat into powder and rubbed upon the teeth, although they be looſe, falling out, or overgrown with fleſh, yet *Pliny* ſaith, they will be recovered by that fricaſſing. If he which is ſick of a Dropſie drink this ſweat or *Oeſypus* in wine with Myrrh of the quantity of a Haſel nut, Gooſe greaſe, and Mirtle oyl, it will give him great eaſe, and the ſame virtue is aſcribed to the ſweat of an Ewes udder, which is and hath been ſaid of all the former *Oeſypus*.

The medicines of the Ram.

Even as the skins of other Sheeps newly plucked from their backs and applyed warm, do take away the ach, ſwelling, and pains of ſtripes and blowes from bodies, ſo alſo have the skins of Rams, the ſame property. *Arnoldus* commendeth a plaiſter made of a Rams skin for burſting and falling down of the guts, and this is found ready prepared in many Apothecaries ſhops, and the happy ſucceſs thereof is much commended by *Alyſius*. If a man take the ſtones of a fighting cock, and anoint them with Gooſe greaſe, and ſo wear them in a piece of a Rams skin, it is certain that it will cohibite and reſtrain the rage of venereal luſt, and a woman wearing about her the right ſtone of a dunghil cock in a Rams skin ſhall not ſuffer abortment. The waſhed fleece of a Ram wet in cold Oyl, putryfieth the inflamation of the ſecrets; and likewiſe the black wool of a Ram wet in water, and then in oyl, and ſo put to the ſick places, keepeth the fundament from falling, and alſo aſſwageth the pain. Alſo the wool of a fighting Ram taken from betwixt his horns, and perfumed into a ſmoke, eaſeth the pain, and ſome take the powder thereof in Vinegar for that Malady. They ſay that *Lais* and *Salpe* cure the bitings of mad Dogs, and alſo Tertian and Quartan Agues, with the menſtruous purgation taken in a piece of Rams wool, and included in a bracelet of ſilver. Alſo they write that a woman ſhall have an eaſie travail if ſhe wear in the wool of a Ram, ſeed of wilde Cucumber about her loins, not knowing thereof, ſo as it be preſently after the delivery caſt out of doors. Alſo *Marcellus* ſaith, that if one take the wool from a Rams fore-head, and burn in the cover of a new pot, and afterward beat it to powder in a morter, and ſo put it into Vinegar, and therewithal the forehead being anointed it eaſeth the head-ach. Alſo the duſt of Rams wool mixed with water, cureth the pain in the yard. The matter of the Liver ſod, hath the ſame operation: and *Sextus* writeth, that if the wool be taken from the head, ribs, and cods, and alſo worn by him that hath a Tertian Ague, it perfectly cureth him, and if a mans fingers ends and toes be tyed with the unwaſhed wool of a Ram, it will ſtanch the bleeding at any part, eſpecially the Noſe. Alſo if you burn the greaſie wool of a very fat Ram, and in water waſh the ſame, it will help all evils in the yard of man, if it be rubbed therewithal.

Avicenna.

The broath of the rump of a Ram is commended againſt bliſters. The fleſh of a Ram being burnt and anointed upon the body of any leaprous perſon, or any whoſe body is troubled with Ringworms or itches, is very effectual to cure them. The ſame force hath it againſt the bites of Scorpions, and ſtingings of Serpents, and Algerarat: it alſo being taken in wine, is good for the bitings of mad dogs, and healeth the white skins in the eyes The fat of a Sheep or Weather hath the ſame in it, as Pork greaſe, and cureth the ſuffocation of the womb, and al other diſeaſes incident unto the ſecret parts, and alſo helpeth places in the body being burnt by fire. The fat of a Ram being mingled with red Arſenick and anointed upon any ſcall or ſcab, the ſame being afterward pared or ſcraped, doth perfectly heal it. It doth alſo being mixed with Allum, help thoſe which are troubled with Kibes or Chilblanes in their heels.

Sextus.

Marcellus.

The ſewet of a Ram mingled with the powder of a pumice ſtone and ſalt, of each a like quantity, is ſaid to heal fellons and inflamations in the body. The Lungs of ſmal Cattle, but eſpecially of a Ram doth reſtore chaps or ſcars in the body to their right colour. The ſame vertue hath the fat of a Ram being mingled with Nitre The gall of a Ram mingled with his own ſewet, is very good and profitable for thoſe to uſe who are troubled with the Gowt or ſwelling in the joynts The horn of a Ram being burned, and the duſt of the ſame mixed with oyl, and ſo pounded together, being often anointed upon a ſhaven head, doth cauſe the hair to friſle and curl. A comb being made of the *left horn* of a Ram, and combed upon the head, doth take away all pain upon the left part thereof, if likewiſe there be pain in the right ſide of the head, the right horn of a Ram doth cure it. For the curing of the loſſe of ones wits ſpringing from the imperfection of the brain, take the head of a Ram never given to venery, being chopped off at one blow, the horns being only taken away, and ſeethe it whole with the skin and the wool in water, then having opened it, take out the brains, and add unto them theſe kinds of ſpices, Cinamon, Ginger, Mace, and Cloves, of each one half an ounce: theſe being beaten to powder, mingle them with the brains in an earthen platter diligently tempering of them by a burning cole, not very big, for fear of burning, which might eaſily be done, but there muſt great care be had that it be not too much dryed, but that it might be ſo boyled that it be no more dryed then a Calfs brains being prepared for meat.

It ſhall be ſufficiently boyled when you ſhall well mingle them at the fire, then keep it hid, and for three days give it dayly to the ſick perſon faſting, ſo that he may abſtain from meat and drink two hours after It may be taken in bread, or in an Egge, or in whatſoever the ſick party hath a deſire unto: but there muſt be regard that he be not in a clear place, and that he uſe this forty days ſpace, which they are wont to uſe whoſe bloud is withdrawn or fled away: and let him abſtain from wine aſſaying his head.

Marcellus.

There are thoſe which are holpen in a ſhort ſpace, ſome in ſix or eight weeks by this Medicine being received. But it is convenient that it be required for three moneths, and then it will have the more power therein. The Lungs of a Ram while they are hot applyed unto wounds wherein the fleſh doth too much increaſe, doth both repreſs and make it equal. The Lungs of ſmall Cattle, but eſpecially of Rams being cut in ſmall pieces and applyed whiles they are hot unto bruiſed places, do very ſpeedily cure them and reduce them to the right colour.

Sextus.

The ſame doth cure the feet of ſuch as are pinched through the ſtraightneſs of their ſhooes. The Lungs of a Ram applyed unto Kibed heels or broken Ulcers in the feet; doth quite expel away the pain, notwithſtanding the exceeding ach or pricking thereof. One drop of the liquor which is boyled out of a Rams lungs put upon the ſmall nails upon the hand, doth quite expel them. The like operation hath it to expel Warts being anointed thereupon. The corrupt bloud of the Lungs of a Ram unroaſted, doth heal all pains in the privy members of man or woman; as alſo expel Warts in any place of the body. The juyce of the Lungs of a Ram while they are roaſted upon a Gridiron being received, doth by the unction thereof purge and drive away the little black Warts which are wont to grow in the hair or privy parts of any man.

Æſculapius.

The liquor which diſtilleth from the Lungs of a Ram being boyled, doth heal Tertian Agues, and the diſeaſe of the reins which grow therein. The Lungs of a Lamb or Ram being burned, and the duſt thereof mingled with Oyl, or being applyed raw, do heal the ſoreneſs of Kibes, and are accounted very profitable to be bound upon Ulcers. The Lungs of a Ram being pulled forth and bound hot unto the head of any one that is frenzie, will preſently help him. Againſt the peſtilent diſeaſe of Sheep, take the belly of a Ram and boyl it in wine, then being mixed with water, give it to the Sheep to drink, and it will bring preſent remedy.

The gall of a Ram is very good for the healing of thoſe which are troubled with any pains in the ears, coming by the caſualty of cold. *Marcellus.* The gall of a Ram mingled with his own ſewet, doth eaſe thoſe which are toubled with the Gowt. The gall of a Weather mingled with the wool and placed upon the navel of young children, doth make them looſe in their bellies. The ſtones of an old Ram being beaten in half a penny weight of water, or in three quarters of a pint of Aſſes milk, are reported to be very profitable for thoſe which are troubled with the falling ſickneſs. The ſtones of a Ram being drunk in water to the weight of three half pence, cureth the ſame diſeaſe. *Pliny.* The duſt of the inward parts of a Rams thigh being lapped in rags or clouts, waſhed very exactly before with womens milk, doth heal the ulcers or runnings of old ſores. The duſt of the hoof of a Ram mingled with hony, doth heal the bitings of a Shrew. The dung of Weathers mingled with Vinegar and faſhioned in the form of a Plaiſter, doth expel black ſpots in the body, and taketh away all hard bunches ariſing in the fleſh. The ſame being applyed in the like manner, cureth St. *Anthonies* fire, and healeth burned places.

The filth or ſweat which groweth between the thighs of a Ram being mingled with Myrrh and the Herb called Hart-wort, and drunk of each an equal part, is accounted a very excellent remedy for thoſe which are troubled with the Kings evil. *Sextius.* But *Pliny* commendeth the filth of Rams ears mingled with Myrrh, to be a more effectual and ſpeedy remedy againſt the ſaid diſeaſe.

The medicines of the Lamb.

Aetius. The beſt remedy for bitings of Serpents is this, preſently after the wound to apply ſome little creatures to the ſame, being cut in ſmall pieces, and laid hot unto it, as Cocks, Goats, Lambs, and young Pigs; for they expel the poiſon and much eaſe the pains thereof. An ounce of Lambs bloud being freſh before that it doth congeal mixed with Vinegar, and drunk for three dayes together, is an excellent remedy againſt the vomiting or ſpitting of bloud. The like force in it hath the bloud of a Kid The bloud of a Lamb mingled with wine, doth heal thoſe which are troubled with the Falling ſickneſs, as alſo thoſe which have the foul evil. For the conception of a Woman, take the yard and gall of a Buck, a Kid, and a Hare, with the bloud and ſewet of a Lamb, and the marrow of a Hart, and mix them all together with Nard and Oyl of Roſes, and after her purgation, let them be laid under her, and this without all doubt will make her apt to conceive.

Pliny. The skins of Serpents being anointed with water in a bath, and mingled with lime and Lambs ſewet, doth heal the diſeaſe called St. *Anthonies* fire. The marrow of a Lamb melted by the fire, with the Oyl of Nuts and white ſugar, diſtilled upon a clean diſh or platter, and ſo drunk, doth diſſolve the ſtone in the bladder, and is very profitable for any that piſſeth bloud. It alſo cureth all pains or griefes of the yard, bladder or reins. The skin of a Lamb being dawbed or anointed with liquid pitch, and applyed hot unto the belly of any one that is troubled with excoriations of the bowels or of the Bloudy flux, will very ſpeedily cure him, if he have any ſenſe or feeling of cold in him.

Hippocrates. If a Virgins menſtrual fluxes come not forth at the due time, and her belly is moved, it is convenient to apply Lambs skins being hot unto her belly, and they will in ſhort ſpace cauſe them to come forth. A garment made of Lambs skins is accounted very good for the corroborating and ſtrengthning of young men. The skins of Lambs are more hot then Kids skins, and are more profitable for the confirming of the back and the reins The little bone which is in the right ſide of a Toad being bound in a young lambs skin being hot, doth heal both Quartain and all other Fevers being applyed thereunto. The duſt of Lambs bones is very much and rightly uſed for Ulcers which have no chops, or ſtars in them. The duſt of ſmall Cattles dung being mingled with Nitre, but eſpecially of Lambs, hath in them great force to heal Cankers: the duſt of Lambs bones, is very much commended for the healing and making of green wounds ſound and ſolid, which thing by the *Saracens* is much verified in regard that at all times they go to war, they never forget to take of the ſame along with them.

Marcellus. The Lungs of Lambs do very effectually cure thoſe whoſe feet are wrung or pinched by their ſhoo-ſoles. *Pliny.* The Lungs of Lambs or Rams being burned, and the duſt thereof mingled with Oyl, is very profitable for the curing of kibes or ulcers, being applyed thereunto. It hath the ſame virtue being raw and bound upon the ſore.

Marcellus. The runnet of a Lamb is of very great force againſt all other evil medicines. The runnets of ſmall Cattle, but eſpecially of a Lamb, is very effectual againſt all kinds of poyſon. The runnets of a Kid, a Lamb, and a hind-calf are conveniently taken againſt Wolf-bane drunk in wine. The runnet of a Hare, a Kid, or a Lamb taken in wine to the weight of a dram is very effectual againſt the Fork-fiſh, and cureth the bites or ſtrokes of all Sea-fiſhes. *Pliny.* The runnet of a Lamb drunk in wine is an excellent cure for the bitings of a Shrew The runnet of a Lamb drunk in water is accounted for a ſafegard to young children who are vexed with thick and concrete milk: or if the default ſhall happen by curded milk, it will be ſoon remedyed by a Lambs runnet given in Vinegar. A Lambs runnet hid or powred into water, doth ſpeedily cohibit the bleeding of the noſe, when nothing elſe can ſtay it The gall of ſmall Cattle, but eſpecially of a Lamb being mixed with hony, are thought to be very medicinable for the curing of the Falling ſickneſs.

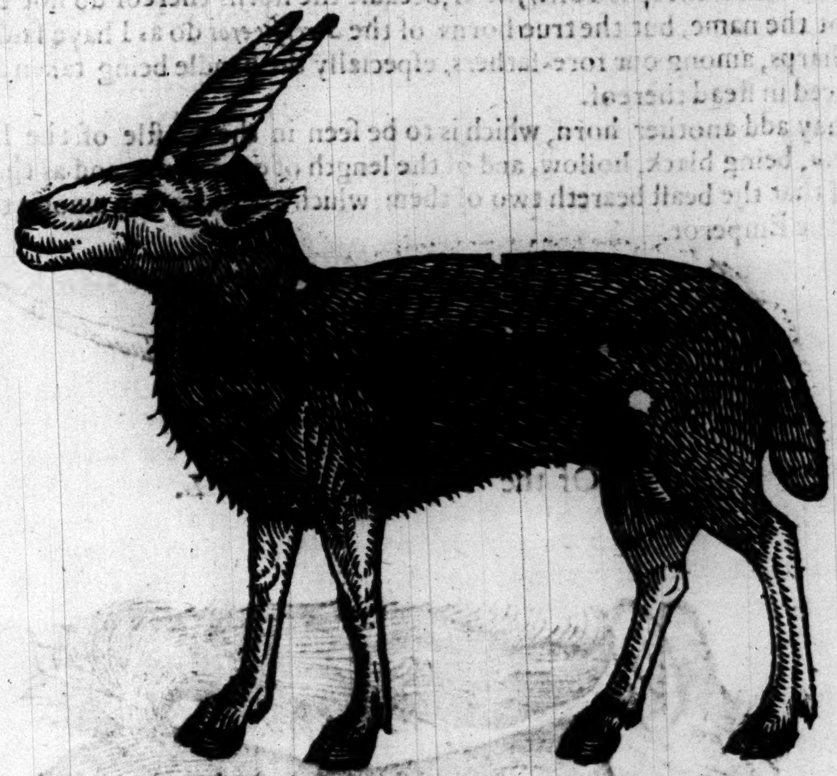
The places which are infected by Cankers, being anointed over with the gall of a Lamb are very ſpeedily and effectually healed.

There is alſo by the Magitians delivered unto us a ſpeedy means for the curing of the milt, which is this, to take a Lamb new born, and inſtantly to pluck him in pieces with ones hands, and when the milt is pulled out to put it hot upon the milt of the party ſo grieved, and bind it on faſt with ſwadling cloathes, and continually to ſay, I make a remedy for the milt; then in the laſt day the ſame being taken from his body to put it to the Wall of the bed wherein the diſeaſed party is wont to lie, it being firſt daubed with durt, that it might the better ſtick, and to ſign the durt with ſeven and twenty marks, ſaying at every mark, I make a remedy for the milt: this remedy being done three times it will heal the diſeaſed party, although he be very weak and full of danger. But this is the opinion of the Magitians, which I here ſet down that they ſhould rather ſee their folly then believe, knowing them to be meer fopperies. For making the wool to grow ſlower, the gelders of Cattle anoint the blood which cometh from the ſtones of gelded Lambs, which being anointed, doth profit very much for hairs being pulled away, as alſo againſt poiſon. The dung of Lambs before they have taſted of any graſſe, being dryed in the ſhadow, and rubbed to powder and applyed in the manner of a plaiſter, doth heal and eaſe all kinds of pain in the chaps or jawes. And thus much for the medicines of the Sheep.

Marcellus.

Pliny.

Of the STREPSICEROS.

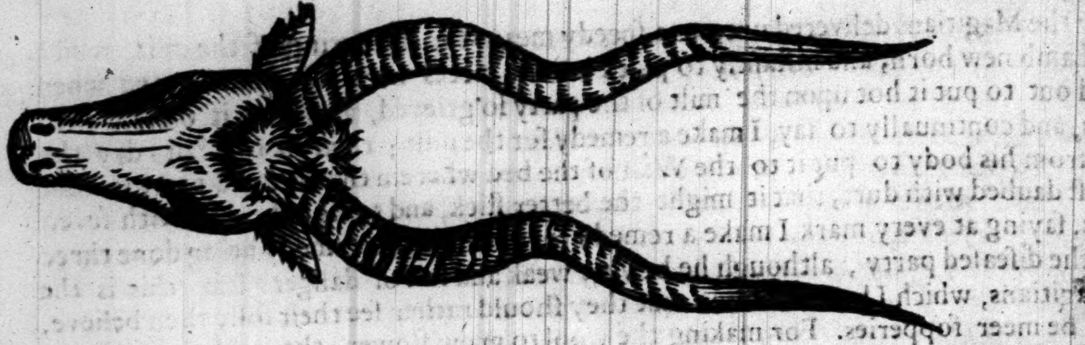


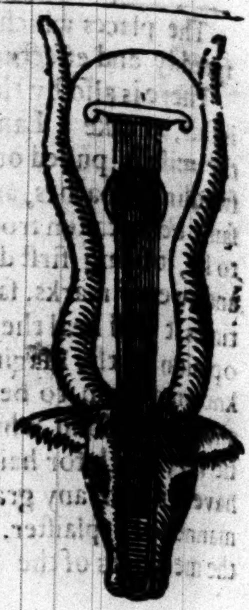
THere is in *Crete* neer the Mountain *Ida*, a kinde of Sheep called by the Shepherds *Strepſiceros*, which is not different from the vulgar Sheep, except only in the horns, for they bend not like other, but ſtand ſtraight and upright like the *Unicorn*, and beſides are circled about with certain round ſpeers like a Goats horn. This liveth in flocks, and we have here beſides the figure of the beaſt, expreſſed a double form of their horns, and fore part of their head, the figure of a Harpe being faſtned to one of them as it was preſently drawn. The deſcription whereof was taken by Doctor Cay of *England*, in theſe words following.

Bellonius.

The horns of this Strepſiceros are ſo lively expreſſed by *Pliny*, and ſo fitly fitted to bear Harps, that they ſeem not to aske any further narration of words. I will therefore only add this, they are hollow within, and long, about two *Roman* feet and three palms if you meaſure them, as they are ſtraight; but if you take their ſcantling and length as they crook a little, then are they about three foot long, they are in breadth where they joyn to the head, three *Roman* fingers and a half, and their whole compaſs in that place is about two *Roman* palms and a half. In the top they are ſmooth and black, but at the root they are more dusky and rugged, growing leſſer and leſſer to a ſharp point. They with the dryed face did weigh ſeven pounds and three ounces, and the face which remaineth is joyned to the horns, and likewiſe the hair of the neck and face. It is ſaid that this Beaſt is as great as a Hart, having a red hair like a Hart.

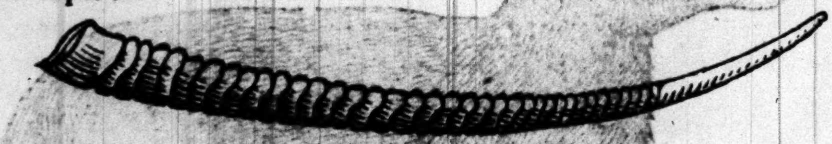
But whether his noſtrils were ſo alſo I could not conjecture, by reaſon that the age and long uſe of the piece had defaced the noſe which was dryed up, and alſo the hair was worn away, ſo as it was bald, but by that which was moſt apparent unto it, I rather inclined that it reſembled a Hart, from



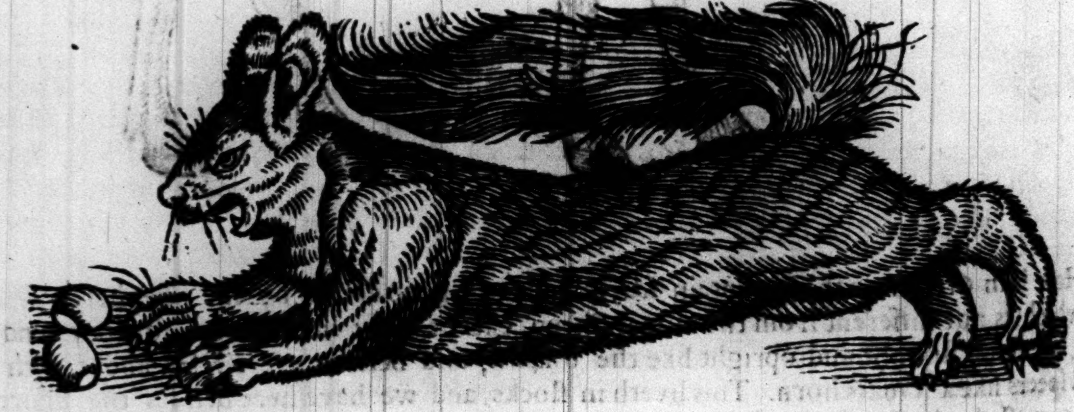


hence it was that the drawer made the noſtrils leſſe then might anſwer the proportion of the face, and that which is ſeen betwixt the horns it is a piece of the neck, by which relation I cannot believe that the *Cretian* or *Idean* Sheep is a *Strepſiceros*, becauſe the horns thereof do not bend at all, although it anſwereth not the name, but the true horns of the *Strepſiceros* do as I have ſaid reſemble the ancient faſhion of harps, among our fore-fathers, eſpecially the handle being taken away, and the face of the beaſt placed in ſtead thereof.

Unto this I may add another horn, which is to be ſeen in the Caſtle of the L. *William Wernhere* Count of *Cimbria*, being black, hollow, and of the length of ones arme, and as thick as a great ſtaffe, and it was ſaid, that the beaſt beareth two of them, which are to be ſeen among the rare monuments of *Ferdinandus* the Emperor.



Of the SQUIRREL.



THe name of this Beaſt is by the *Grecians* called *Sciuros*, and it was given them from the faſhion and proportion of their tail, which covereth almoſt the whole body, for that which is fabulouſly ſaid of the *Sciapodes* to have feet that cover their whole body, is more truly verified of a Squirrels tail, for in the day time being out of her neſt, ſhe hideth her ſelf there under both from ſun and rain.

The firſt Author that ever wrote of this Beaſt was *Oppianus*, who lived in the days of *Antonius Cæſar*, and the *Latins* have no proper or native name for it, but borrow from the *Grecians*, although ſome of the latter writers call it *Pirolus*, and *Spiurus*, I think they would ſay *Sciurus*, for ſo it is vulgarly termed in *Latin*: ſome alſo call it *Sculurus a currendo*, becauſe of his nimble running upon boughs. But all the Nations of the world derive their ſeveral denominations from the *Grecians*, as the *Engliſh* Squirrel from *Sciurus* is not far fetched; the *French* words *Eſcurieu*, and *Eſcurius*, from whom the *Germans* borrow their words *Eychorn*, or *Eichorn*, or *Eych horn*, or *Eich bermlin*, that a Weaſel of the tree, and *Das Eychorn*.

The *Italians* call it *Schirivolo*, and the *Venetians* (as *Maſſarius* teſtifieth) *Schiriati*; the *Spaniards* *Harda*, and *Eſquilo*, and ſome do interpret *Coma dreia* for a Squirrel; the *Illyrians*, *Weweeka*, and ſome of the *Polonians*, *Wije Wijerka*, and ſo they turn the Mouſe *Varius*, as we have ſaid elſe where in that ſtory, and ſome of the *Germans* call it *Werck*, and *Veeb*, and *Fech*.

Now *Albertus* and *Agricola* ſay, that there is no difference betwixt the Mouſe *Varius* and the Squirrel, but only in the Region which altereth the colour, and therefore we have expreſſed the ſame figure thereof, remitting the Reader to that which is ſaid in that Hiſtory, for this (ſay they) in *Germany* is red after it be a year old, but before that time it is blackiſh, that is till it be a year old: In *Polonia* it is of a red-aſh colour, or branded gryſell, in *Ruſſia* of an ordinary aſh colour, and for the quantity, food, and manner, or natural inclination, it hath the ſame in all parts with the mouſe *Varius*.

Varinus and *Heſychius* ſay, that the *Grecians* call this beaſt alſo *Campſiouros*, and *Hippouros*, and ſome call the *Cappadocian* Mouſe *Neexis* a Squirrel; the *Jewes* at this day call a Squirrel *Coach*, for it is apparent that in antient time till they came into theſe parts of the world into *Grecia* and *Europe*, they never knew or ſaw this beaſt. And this ſhall ſuffice to have ſaid of the name.

A Squirrel is greater in compaſs then a Weaſel, but a Weaſel is longer then a Squirrel, the back parts and all the body is red, except the belly which is white. In *Helvetia* they are black and branded, and they are hunted in the Autumn at the fall of the leaf, when the trees grow naked, for they run and leap from bough to bough in a moſt admirable and agile manner, and when the leaves are on, they cannot be ſo well diſcerned. They are of three colours, in the firſt age black, in the ſecond of a ruſty Iron colour, and laſt of all when they be ſtricken in age, they are full of white hoar hairs. Their teeth are like the teeth of Mice, having the two under teeth very long and ſharp, their tail is always as big as their body, and it lyeth continually upon their back, when they ſleep or ſit ſtill; It ſeemeth to be given them for a covering as we have ſaid already. The maw-gut differeth from all other, for it is *Coecum*, that is, as I take it without a paſſage out of it into any other part then the other guts, or like a mans bladder; and it is as great as their ventricle, which in diſſection hath been found full ſtuft with excrements. The genital is like a bone, as *Veſalius* writeth.

They uſe their forefeet in ſtead of hands, for they ſit upon their buttocks, and move their meat to *their* mouth with them, in this point reſembling every little vulgar Mouſe, yet being put to the mouth, they hold it in their teeth. They will eat Nuts and Almonds very greedily, and alſo Apples, Buckmaſts, Acorns, and ſometimes herbs, eſpecially Lettice, and all other ſweet fruits. Their feet are cloven like Mice, and their hinder parts very fleſhy to ſit upon. In the ſummer time they build them neſts, (which in our Countrey are called *Drayes*) in the tops of the trees, very artificially of ſtickes and moſſe, and ſuch other things as woods do afford them.

The mouth of their neſt is variable, ſometimes at the ſides, and ſometimes at the top. but moſt commonly it is ſhut againſt the winde, and therefore I think that ſhe maketh many paſſages, ſtopping and opening them as the winde turneth. In Summer time they gather together aboundance of fruits and Nuts for winter, even ſo much as their little *Dray* will hold and contain, which they carry in their mouths, and they lodge many times two together, a male and female (as I ſuppoſe.) They ſleep a great part of the Winter like the *Alpine* Mouſe, and very ſoundly, for I have ſeen when no noiſe of hunters could awake them with al their cries, beating their neſts on the outſide, and ſhooting bolts and arrowes thorough it, until it were pulled aſunder, wherein many times they are found killed before they be awaked.

They are of incredible agility and motion, never ſtanding ſtill, as it appeareth by them which are tamed. When they leap from tree to tree, they uſe their tail in ſtead of wings. which is moſt apparent, becauſe many times they leap a great diſtance and are ſupported without ſinking to mans appearance.

And again I have ſeen them leap from the top of very high trees down to the ground in ſuch an ordinary pace as Birds flie from trees to light on the earth, and receive no harm at all; for when they are hunted, men muſt go to it with multitude, for many men cannot take one with bowes and bolts with Dogs, and except they ſtart and rouze them in little and ſmall ſlender woods, ſuch as a man may ſhake with his hands, they are ſeldom taken.

Bowes are requiſite to remove them when they reſt in the twiſts of trees, for they wil not be much terrified with all the hollowing, except now and then they be ſtruck by one means or other. Well do they know what harbour a high Oak is unto them, and how ſecure they can lodge therein from Men and Dogs, therefore ſeeing it were too troubleſome to climb every tree, they muſt ſupply that buſineſs or labor with bowes and bolts, that when the Squirrel reſteth, preſently ſhe may feel the blow of a cunning Archer, he need not fear doing her much harm, except he hit her on the head, for by reaſon of a ſtrong back-bone and fleſhy parts, ſhe will abide as great a ſtroak as a Dog; yea, I have ſeen one removed from a bough with a ſhot to the ground.

If they be driven to the ground from the trees to creep into hedges, it is a token of their wearineſs, for ſuch is the ſtately minde of this little Beaſt, that while her limbs and ſtrength laſteth, ſhe tarryeth and ſaveth her ſelf in the tops of tall trees, then being deſcended, ſhe falleth into the mouth of every Cur, and this is the uſe of Dogs in their hunting.

The admirable wit of this Beaſt appeareth in her ſwimmig or paſſing over the Waters, for when hunger or ſome convenient prey of meat conſtraineth her to paſſe over a river, ſhe ſeeketh out ſome rinde or ſmall bark of a Tree which ſhe ſetteth upon the water, and then goeth into it, and holding up her tail like a ſail, letteth the winde drive her to the other ſide, and this is witneſſed by *Olaus Magnus* in his deſcription of *Scandinavia*, where this is ordinary among Squirrels, by reaſon of many rivers, that otherwiſe they cannot paſſe over, alſo they carry meat in their mouth to prevent famine whatſoever befall them, and as Peacocks cover themſelves with their tails in hot Summer from the rage of the Sun, as under a ſhadow, with the ſame diſpoſition doth the Squirrel cover her body againſt heat and cold.

They grow exceeding tame and familiar to men if they be accuſtomed and taken when they are young, for they run up to mens ſhoulders, and they will oftentimes ſit upon their hands, creep into their pockets for Nuts, go out of doors, and return home again; but if they be taken alive, being old, when once they get looſe, they will never return home again, and therefore ſuch may well be called *Semiferi* rather then *Cicures*.

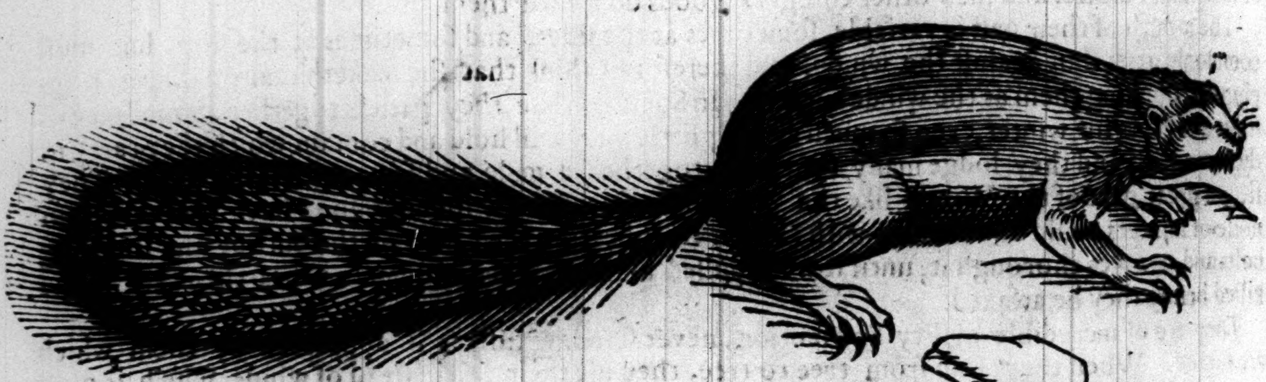
They are very harmful, and will eat all manner of woollen garments, and if it were not for that diſcommodity, they were ſweet-ſportful beaſts, and are very pleaſant playfellowes in a houſe.

It is ſaid, that if once they taſt of Garlick, they will never after bite any thing, and this is preſcribed by *Cardan* to tame them, their skins are exceeding warm, and well regarded by skinners, for their heat is very agreeable to the bodies of men, and therefore they are mixed alſo with the skins of Foxes. Their fleſh is ſweet, but not very wholeſome, except the Squirrel were a black one. It is tender and comparable to the fleſh of Kids or Conies, and their tails are profitable to make bruſhes of.

The medicines are the ſame for the moſt part which are before expreſſed in the Dormouſe, ſaving that I may add that of *Archigenes*, who writeth, that the fat of a Squirrel warmed on a rubbing cloth, and ſo inſtilled into the ears, doth wonderfully cure the pains in the ears. And ſo I conclude this hiſtory of the Squirrel with the Epithets that *Martial* maketh of a Peacock, a Phœnix, and a Squirrel, in a compariſon of a beautiful Virgin *Erotion*.

Cui comparatus indecens erat pavo,
Inamabilis ſciurus, & frequens Phœnix.

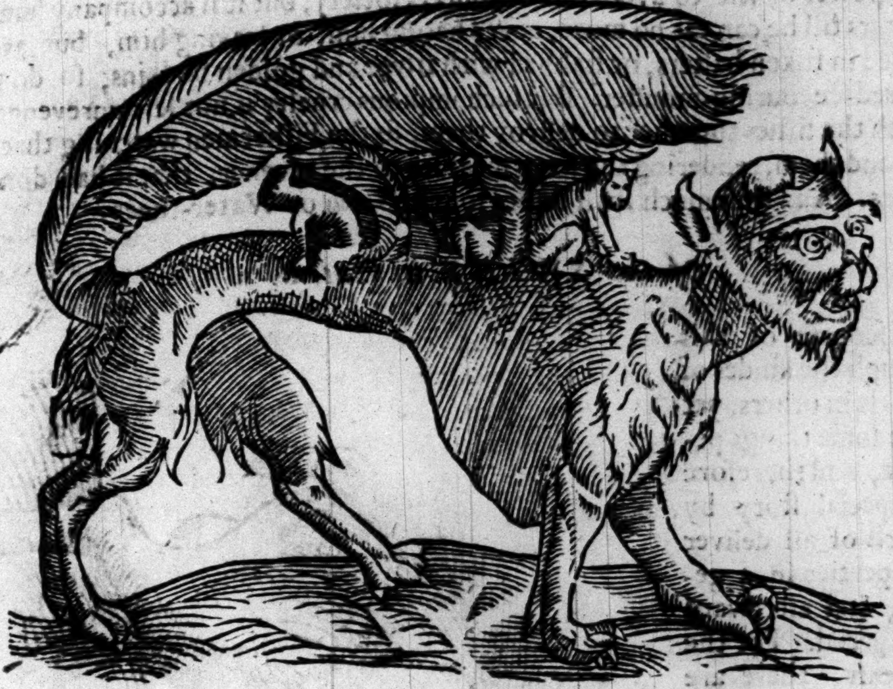
Of the *Getulian Squirrel*, deſcribed and figured by *Doctor Cay*.



THis *Getulian* or *Barbarian* Squirrel, is of mixt colour, as it were betwixt black and red, and from the ſhoulders all alone to the tail by the ſides, there are white and ruſſet ſtrakes or lines, which in a decent and ſeemly order ſtand in ranks or orders; and there be ſome of theſe Squirrels which have ſuch lines of white and black, with correſpondent lines in the tail, yet they cannot be ſeen except the tail be ſtretched out at length, by reaſon there is not much hair upon it. The belly ſeemeth to be like a blew colour upon a white ground. It is a little leſſe then the vulgar Squirrel, and hath not any ears extant or ſtanding up as that, but cloſe preſſed to the skin round, and ariſing a little in length by the upper face of the skin. The head is like the head of a Frog, and in other things it is very like the vulgar Squirrel, for both the outward ſhape, the manner, and behaviour, the meat and means of life agree in both, and ſhe alſo covereth her body like other Squirrels. This picture and deſcription was taken by him from one of them alive, which a Marchant of *London* brought out of *Barbary*.

They are very pleaſant and tame, and it is very likely that it is a kinde of *Egyptian* or *African* Mouſe, whereof there are three ſorts deſcribed by *Herodotus*, the firſt called *Bipedes*, the ſecond *Zegeries*, and the third *Echines*, of which we have already ſpoken in the ſtory of divers kinds of Mice, and therefore I will here end the diſcourſe of this Beaſt.

Of a Wilde Beaſt in the New-found World called SU.



THere is a Region in the New-found World, called *Gigantes*, and the Inhabitants thereof are called *Pantagones*; now becauſe their Countrey is cold, being far in the South, they clothe themſelves with the skins of a Beaſt called in their own tongue *Su*, for by reaſon that this Beaſt liveth for the moſt part neer the waters, therefore they call it by the name of *Su*, which ſignifieth water. The true Image thereof as it was taken by *Thevetus*, I have here inſerted, for it is of a very deformed ſhape, and monſtrous preſence, a great ravener and untamable wilde Beaſt. When the Hunters that deſire her skin ſet upon her, ſhe flyeth very ſwift, carrying her young ones upon her back, and covering them with her broad tail: now forſomuch as no Dog or Man dareth to approach neer unto her, (becauſe ſuch is the wrath thereof, that in the purſuit ſhe killeth all that cometh near her:) the Hunters dig ſeveral pits or great holes in the earth, which they cover with boughs, ſticks, and earth, ſo weakly that if the Beaſt chance at any time to come upon it, ſhe and her young ones fall down into the pit and are taken.

This cruel, untamable, impatient, violent, ravening, and bloudy beaſt, perceiving that her natural ſtrength cannot deliver her from the wit and policy of men her hunters, (for being incloſed, ſhe can never get out again,) the Hunters being at hand to watch her downfall, and work her overthrow, firſt of all to ſave her young ones from taking and taming, ſhe deſtroyeth them all with her own teeth; for there was never any of them taken alive; and when ſhe ſeeth the Hunters come about her, ſhe roareth, cryeth, howleth, brayeth, and uttereth ſuch a fearfull, noyſome, and terrible clamor, that the men which watch to kill her, are not thereby a little amazed, but at laſt being animated, becauſe there can be no reſiſtance, they approach, and with their darts and ſpears wound her to death, and then take off her skin, and leave the carcaſs in the earth. And this is all that I finde recorded of this moſt ſavage Beaſt.

Of the SUBUS, a kinde of wilde Water-ſheep.

THis Beaſt is called by *Oppianus Soubos*, and thereof the *Latines* call it *Subus*. *Bodine* in his interpretation of *Oppianus*, doth make it one beaſt with the *Strepſiceros*, but becauſe he expreſſeth no reaſon thereof, I take it that he was deceived by his conjecture, for we ſhall manifeſt; that either the colour or ſeat of living, cannot agree with the *Strepſiceros*, for he ſaith only it is the ſame Beaſt which *Pliny* calleth a *Strepſiceros*.

But we know by the deſcription of *Oppianus*, that this Beaſt is of a red-gold-colour, having two ſtrong armed horns on the head, and liveth ſometimes in the Sea, and Water, ſometime on the land. Of all kindes of Sheep this is the worſt and moſt harmful, ravening after life and bloud; for it goeth to the water, and therein ſwimmeth: when the ſilly ſimple fiſhes ſee this glorious ſhape in the waters, admiring the horns, and eſpecially the golden colour, they gather about him in great flocks and abundance, eſpecially Shrimps, Lobſters, Mackarel, and Tenches, who follow him with ſingular delight on either ſide, both the right and the left, preſſing who ſhall come neareſt, to touch and have the fulleſt ſight of him; ſo they accompany him in ranks for love of his ſo ſtrange proportion. But this unkinde and ravening Beaſt, deſpiſing their amity, ſociety, and fellowſhip, maketh but a bait of his golden outſide and colour, to draw unto him his convenient prey, and beguile the innocent fiſhes, for he ſnatcheth at the neareſt, and devoureth them, tarrying no longer in the water then his belly is filled, and yet theſe ſimple fooliſh fiſhes ſeeing their fellows devoured before their faces have not the power or wit to avoid this devourers ſociety, but ſtill accompany him, and weary him out of the waters till he can eat no more, never hating him, or leaving him, but as men which delight to be hanged in ſilken halters, or ſtabbed with ſilver and golden bodkins, ſo do the fiſhes by this golden-coloured-devouring-monſter. But ſuch impious cruelty is not left unrevenged in nature, for as ſhe gathereth the fiſhes together to deſtroy them, ſo the Fiſhermen watching that concourſe, do entrap both it and them, rendering the ſame meaſure to the ravener, that it had done to his innocent companions. And thus much ſhall ſuffice for the *Subus* or Water-ſheep.

Of the SWINE *in general.*

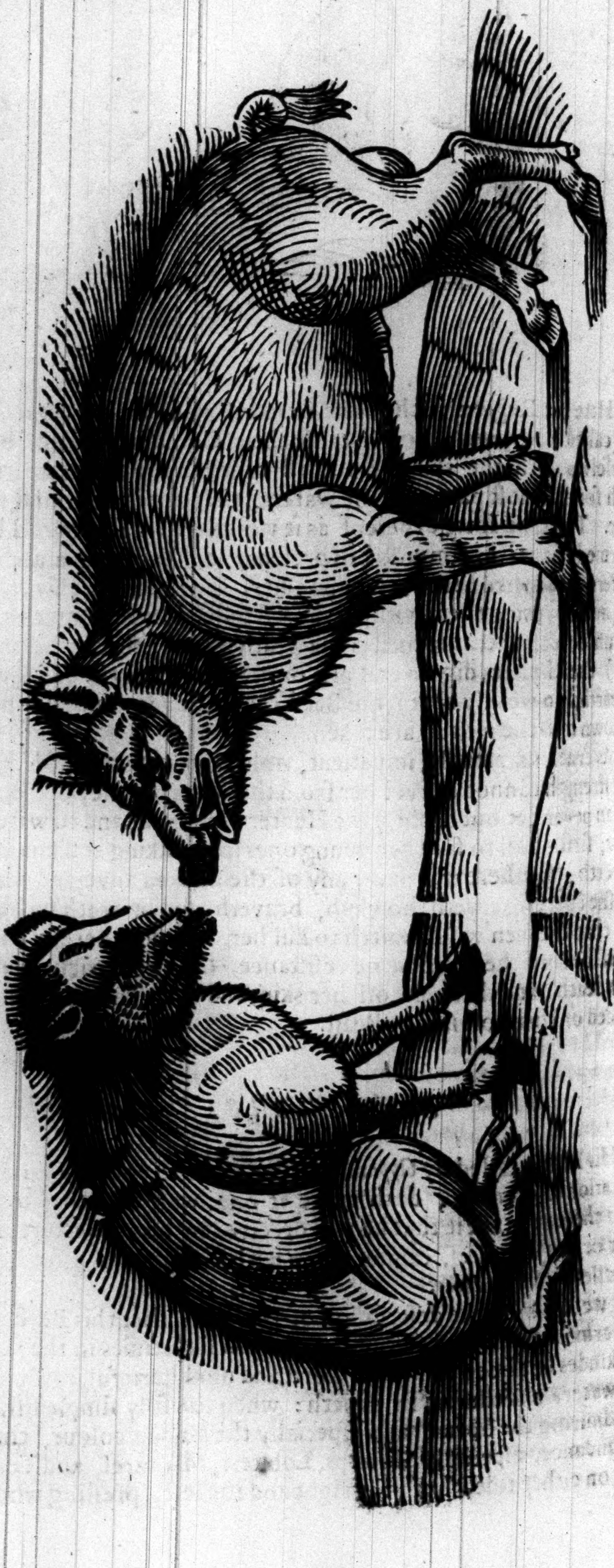
The ſeveral names.

BEing to diſcourſe of this beaſt, although the kindes of it be not many as is in others, yet becauſe there are ſome things peculiar to the Bore, and therefore he deſerveth a ſpecial ſtory by himſelf, I will firſt of all deliver the common properties in a general Narration, and afterward deſcend to the ſpecial. For the names of this beaſt, there are many in all languages, and ſuch as belong to the ſeveral ſex and age of every one. For as in *Engliſh* we call a young Swine a Pig, a Weaning Pig, a Sheat, a Yealk, and ſo forth; likewiſe a Hog, a Sow, a Barrow, a Libd-hog, a Libd-ſow, a Splayed Sow, a Gelt Sow, a Baſs, for the elder Swine, ſo in other Nations they obſerve ſuch like titles. The *Hebrews* call a Bore *Chaſir*, and a Sow *Chaſerah*, the *Chaldees*, Deut. 4. for *Chaſir* tranſlate *Chaſira*; the *Arabians*, *Kaniſer*; the *Perſians*, *Maran-buk*; the *Septuagints*, *Hus*; and S. *Hierom*, *Sus*; the *Arabians* alſo uſe *Hazir*, and *Acanthil*, for a Hog, *Achira*, and *Scrofa*.

Sylvaticus.

The *Grecians* do alſo uſe *Sus*, or *Zus*, *Choiros*, and *Suagros*. The wilde Hog is called *Kapron*, from hence I conjecture is derived the *Latine* word *Apex*; the *Italians* do vulgarly call it *Porco*; and the *Florentines* peculiarly *Ciacco*; and alſo the *Italians* call a Sow with Pig *Scrofa*, and *Troiata*, or *Porco fattrice*. The reaſon why that they call a Sow that is great with Pig *Trojata*, or *Trojaria* is for the ſimilitude with the *Trojan* Horſe, becauſe as that in the belly thereof did include many armed men, ſo doth a Sow in her belly many young Pigs, which afterward come to the table and diſhes of men. A Barrow hog is called *Majalis* in *Latine*, and the *Italians*, *Porco caſtrato*, and *Lo Majale*. The *French* call a Swine *Porceau*, a Sow

Albinus.
Erythræus.



Troi

Truye Coche, a Bore *Verrat*, a Pig *Cochon Porcelet*, and about *Lyons*, *Cajon*. The barrow Hog they call *Por-chaſtre*. The *Spaniards* call Swine *Puerco*; the *Germans*, *Saw*, or *Suw*, *Su*, *Schwin*, *Schwein*, a Sow they call *Mot* and *Looſs*, a Bore *Aeber*, which ſeemeth to be derived from *Aper*, a Barrow Hog *Barg*, a ſplayed Sow *Gultz*, a Pig *Farle*, and *Scuwle*, and a ſucking Pig *Spanfoerle*. In little *Britain* they call a Hog *Houch*, and thereof they call a Dolphin *Merhouch*. The *Illyrians* call Swine *Swinye*, and *Traſ*; the *Latines*, *Sus*, *Porcus*, and *Porcelus*, and *Scrofa*; and theſe are the common and moſt vulgar tearms of Swines: If there be any other, they are either deviſed or new made, or elſe derived from ſome of theſe.

The etimology of the *Greek* and *Latine* names.

Concerning the *Latine* word *Sus*, *Iſidorus* deriveth it from *Sub*, becauſe theſe Beaſts tread under-foot graſs and grain, and indeed for this cauſe the *Egyptians* kept their Swine in the hills all the year long, till their ſeed time; for when their corn was ſowen, they drove them over their new plowed lands, to tread in the grain, that the Fowls and Birds might not root it or ſcrape it forth again, and for this cauſe alſo they ſpared Swine from Sacrificing. But in mine opinion it is better derived from *Hus*, the *Greek* word: For the *Latine*, *Porcus*, is thought to be ſevered from *Porrectus* becauſe his ſnowt is alway ſtretched forth, and ſo he feedeth, digging with it in the earth, and turning up the root of trees: but I better approve the notation of *Iſidorus*, *Porcus quaſi ſpurcus quia cœno & limo ſe volutat*. That is, becauſe it rowleth and walloweth in the mire. *Porcetra*, or *Porceta* for a Sow that hath had but one farrow, and *Scropha* for a Sow that hath had many. The *Grecians Hus* is derived from *Thuein*, which ſignifieth to kill in ſacrifice, for great was the uſe of ſacrificing this beaſt among the *Paynims*, as we ſhall ſhew afterward. The ancient *Grecians* did alſo tearm Swine *Sika*, and when the Swine-herds did call the Beaſts to their meats, they cryed *Sig*, *Sig*: as in our Countrey their feeders cry *Tig*, *Tig*, *Choiros*, of their feeding and nurſing their young ones. And indeed from Swine we finde that many men have alſo received names, as *Scipio Suarius*, and *Tremellius Scrofa*, whereupon lyeth this hiſtory as he writeth; when *Licinius Nerva* was Prætor, his great Uncle was left Queſtor in his abſence for *Macedonia*, untill the Prætor returned. The enemies thinking that now they had gotten opportunity and advantage againſt their beſiegers or aſſaylants, cauſed an onſet to be made, and a fight to be offered, when his Uncle exhorting the *Roman* Souldiers to arms, told them, *Se celeriter hoſtes diſjecturum ut Scrofa porcellas*, That he would as eaſily caſt them off and ſcatter them, as a Sow doth her Pigs ſucking her belly, which he performed accordingly, and ſo obtained a great victory, for which *Nerva* was made Emperor, and he was always evermore afterward called *Scrofa*.

A hiſtory of the family of *Scrofa*.

Macrobius telleth the occaſion of the name of the family of *Scrofa* ſomewhat otherwiſe, yet pertaining to this diſcourſe. *Tremellius*, ſaith he, was with his family and children, dwelling in a certain Village, and his ſervants ſeeing a ſtray Sow come among them, the owner whereof they did not know, preſently they ſlew her, and brought her home. The neighbour that did owe the Sow called for witneſſes of the fact or theft, and came with them to *Tremellius*, demanding his *Scrofa* or Sow again. *Tremellius* having underſtood by one of his ſervants the deed, laid it up in his Wives bed, and covering it over with the clothes, cauſed her to lie upon the Sows carkaſe, and therefore told his neighbour he ſhould come in and take the *Scrofa*, and ſo had brought him where his wife lay, and ſwore he had no other Sow of his but that, ſhewing him the bed; and ſo the poor man was deceived by a diſſembling oath, for which cauſe (he ſaith) the name of *Scrofa* was given to that family. There was one Pope *Sergius*, whoſe chriſten and firſt name was *Os porci*, Hogs face, and therefore he being elected Pope, changed his name into *Sergius*, which cuſtom of alteration of names, as that was the beginning, ſo it hath continued ever ſince that time among all his ſucceſſors. Likewiſe we read of *Porcellus* a *Grammarian*, of *Porcellius*, a Poet of *Naples*, who made a Chronicle of the affairs of *Frederick* Duke of *Urbine*, *Porcius*, *Suillus*, *Verres* the Prætor of *Sicilia*, *Syadra*, *Sybotas*, *Hyas*, *Hyagnis*, *Gryllus*, *Porcilla*, and many ſuch other give ſufficient teſtimony of the original of their names to be drawn from Swine, and not only men, but people and places; as *Hyatæ*, *Suales*, *Chœreatæ*, three names of the *Dori* in *Greece*: *Hyja* a City of *Locris*, *Hyamena* a City of *Meſſene*, *Hyamajon* a City of *Troy*, *Hyampolis* a City of *Phocis*; whereby to all poſterity it appeareth, that they were Swineherds at the beginning; *Exul Hyantanos invenit regna per agros*. *Hyape*, *Hyops* a City in *Iberia*, *Hyſia* a City of *Bœotia*, and *Plin.* calleth the tall people of *Ethiop*, which were eight cubits in height *Sybotæ*, and the like I might adde of many places, Cities, People, Fountains, Plants, Engins, and deviſes, plentiful in many Authors; but I will not trouble the Reader any longer with that, which may be but thought to be unneceſſary. Only I cannot contain my ſelf from the fiction of a Swines name and Teſtament, or laſt Will, for the mirth and wit thereof, as it is remembred in *Cœlius*, and before in S. *Jerom*, and laſtly by *Alexander Braſſicanus*, and *Geo. Fabritius*, I will expreſs both in *Latine* and *Engliſh* in this place.

Cœlius.
Names of men taken from Swine.

Alex. ab Ale

A fiction of a Hogs will and and teſtament.

M. Grunnius Corocotta Porcellus teſtamentum feci, quod quoniam manu mea propria ſcribere non potui, ſcribendum dictavi. Magirus cocus dixit, veni huc everſor domi, ſoliverſor fugitive porcelle, ego hodie tibi vitam adimo. Corocotta porcellus dixit, ſi qua feci, ſi qua peccavi, ſi qua vaſcula pedibus meis confregi, rogo domine coque, veniam peto, roganti concede. Magirus coquus dixit, tranſi puer, adfer mihi de culina cultrum, ut hunc porcellum cruentum faciam. Porcellus comprehenditur à famulis ductus ſub die 16. Cal. Lucerninas, ubi abundant cymæ, Clibanato & Piperato conſulibus, & ut vidit ſe moriturum eſſe, horæ ſpacium petiit, coquum rogavit, ut teſtamentum facere poſſet. Inclamavit ad ſe ſues parentes, ut de cibariis ſuis aliquid dimitteret eis, qui ait, Patri meo Verrino Lardino, do, lego, dari glandis modios 30. & matri meæ Veturrinæ Scrofæ do, *lego, dari Laconicæ ſiliginis modios 40. & ſorori meæ Quirinæ, in cujus votum intereſſe non potui, do, lego, dari hordei modios 30. & de meis viſceribus dabo, donabo ſutoribus ſetas, rixatoribus capitinas, ſurdis auriculas, cauſidicis & verboſis linguam, bubulariis inteſtina, eſiciariis femora, mulieribus lumbulos, pueris veſicam, puellis caudam, cinædis muſculos, curſoribus & venatoribus talos, latronibus ungulos, & nec nominando coquo, do, lego, ac dimitto popam & piſtillam, quæ mecum detuleram à querceto uſq; ad haram, liget ſibi collum de reſte. Volo mihi fieri monumentum ex literis aureis ſcriptum. M. Grunnius Corocotta porcellus vixit annos CCCC. xc.9. quod ſi ſemis vixiſſet, mille annos compleviſſet. Optimi amatores mei vel conſules vitæ, rogo vos ut corpori meo beneficiatis, bene condiatis, de bonis condimentis nuclei, piperis, & mellis, ut nomen meum in ſempiternum nominetur. Mei domini, & conſobrini mei, qui huic teſtamento interfuiſtis, jubete ſignari. Teſtes.*

Lucanicus ſignavit, Tergillus ſignavit, Nuptialicus ſig.
Celſanus ſign. Lardio ſign. Offelicus ſign. Cymatus ſign.

In *Engliſh* without offence I may tranſlate it thus; I, *M. Grunter Hog-ſon* little Pig have made this my laſt Will and Teſtament, which becauſe I could not write with my own hand, I have cauſed it to be endited by other. *Magirus* the Cook ſaid unto me, come hither thou underminer of houſes, thou rooter up of land, fearful, fugitive little Pig, I muſt this day take away thy life. To whom *Hog-ſon* made this anſwer; If I have done any harm, if I have offended, if I have trod in pieces any veſſels of worth under my feet, then I intreat thee good M. Cook pardon me, and grant me my requeſt. But *Magirus* the Cook ſaid, Run (ſir Kitchin-boy) and bring me a knife out of the Kitchin, that I may let this little Pig bleed: preſently I the little Pig was taken by the ſervants, and by them led the xvi. day of the Calends of Torch-light into the place of Cool-worts, when Fiery-furnace and Pepper-ſpice were Conſuls, and when I ſaw no remedy but that I muſt die, I entreated the Cook but an hours ſpace to make my Will. Which when I had obtained, I call'd my Parents and Friends about me, and made my Will in manner following: Of all my meat and proviſion left behinde me, firſt I give unto Bore-brown my father 30 buſhels of Buck-maſt. Item I give to my mother Town-ſow, 40 buſhels of the beſt Wheat. Item I give my ſiſter Whine-pig 30 buſhels of Barly, and for my bowels I beſtow them in manner following; I bequeath my briſtles to the Coblers and Shoomakers, my brains to Wranglers, my ears to the deaf, my tongue to Lawyers and Pratlers, my intrails to the Tripe-makers, my thighes to the Pye-makers, my loins to women, my bladder to boys, my tail to young maids, my muſcles to ſhameleſs Dancers, my anckle-bones to Lackyes and Hunters, my hoofs to Thieves. Item I give unto this (unworthy to be named) Cook the Knife and the Peſtle, that I brought out of the ſpinny of an Oak, into my ſtye, and ſo let him tie his neck with a halter. Alſo my Will is, that there be made for me a monument, wherein ſhall be ingraven in Golden Letters, this inſcription or title, M. *Grunter Hog-ſon, Little-pig*, lived nine hundred ninty nine years and a half, and if he had lived but one half year longer, he had lived a thouſand years. And you my Lovers and beſt Counſellors of my life, I beſeech you do good to my dead carkaſe, ſalt it well with the beſt ſeaſon of Nutmegs, Pepper, and Hony, that ſo my name and memory may remain for evermore. And you my Maſters and Kindred which have been preſent at the making of my Will, I pray you cauſe your marks to be put thereunto.

Witneſſes;
Wood-hogs mark, *Briſtle-backs mark*, *Town-boars mark*,
Mountain-hogs mark, *Bacon-hogs mark*, *Swill-hogs mark*,
Marſh-hogs mark.

I have expreſſed this diſcourſe for no other purpoſe but to ſhew the Reader, what proper feigned names have been or may be given to Swine, and ſo not to hold him any longer in this diſcourſe, I will proceed from the names to the natures of this Beaſt. And firſt of all to begin with the common and vulgar epithets, which are as ſo many ſhort definitions as they are words, as that of *Horace*, *Amica ſus luto*, a dirt-lover, cloven-footed, beaſtly, clamorous, Acron-eater, rough, horrible, fearful, ſluggiſh, filthy, unclean, impatient, loud, glad of food, miry, fat, wet, follower, moiſt, greedy, tender, and milk-ſucker, according to the Poets ſayings;

The epithets of Swine.

Lacte mero paſcum pigræ mihi matris alumnum,
Ponat: & Ætolo de ſue dives edat.

Countries wherein Swine do not breed.

Swine are in the moſt Countries of the world. Yet *Ariſtotle* and *Ælian* report, that there are none in *India*, and *Arabia Scein*: and moreover there is in the people of thoſe countries ſuch a deteſtation of them that they cannot endure to eat their fleſh, which is not wrought in them by any inſtinct or opinion of Religion (as it is in the *Jews*) but rather by a natural inclination of the place and Region wherein they live, for it is ſaid alſo, that if Swine be brought thither from any other place, they die within ſhort ſpace.

Pliny affirmeth, that there are Boars among ſome of the *Indians* which have horns, and the like is affirmed of the *Æthiopians*. The Swine of *Sicily* are accounted the beſt of all other for food. In *Bavaria* they are lean, but in *Burgundy*, or the neather *Germany*, they are fierce, ſtrong, and very fat. Thoſe which are carried into *Hiſpaniola*, are ſaid to grow to the ſtature of Mules.

Pet Martyr.

Now concerning the ſeveral parts of Swine, it is moſt certain that inwardly they do more reſemble

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a mans body then an Ape, for as all writers do affirm, that outwardly the proportion of Apes come neareſt to men, according to the Poets verſe;

Simia quam ſimilis turpiſſima beſtia nobis.

So on the other ſide a Swines Anatomy doth more lively expreſs the inward members and ſeat of life, and therefore our predeceſſors did firſt of all diſſect a Swine, and then a Man, for the Swine was an example or Introduction to the other; and in Swine they chuſe a lean Hog, becauſe that all the veſſels and inſtrumental parts do better and more clearly appear to the ſight then in a fat Hog. There is not according to *Ariſtotle*, much marrow in their bones, and their skin is all over rough and hairy, and yet the hair not ſo thick as an Oxes, yet much longer and ſtiffer, ſtanding up upon the ridge of the back; the colour of Swine is uncertain, and varieth not only after the diverſity of the Countrey, but in every Countrey it is divers in it ſelf, ſome are white, ſome branded, ſome ſanded, ſome red, ſome black, ſome pyed, ſome none of theſe, and ſome all of theſe; yet in *Germany* for the moſt part red, and in *France* and *Italy* black.

The anatomy and ſeveral parts.

Betwixt the skin and the fleſh there lyeth a fat called *Lardo, larde*, and *Arvina*. Their brain is very fat, and in the wane of the Moon it is leſs then any other beaſts. Their eyes are hollow, and ſtand very deep in their heads, and therefore cannot by Art of man be taken out without danger of death, and if one of them be at any time periſhed, it is a hazzard but the Swine dyeth.

Their eye-brows move more downward toward their noſes, and are again drawn up toward their temples, and their fore-head is very narrow, by which in ancient time they judged or deemed a fool or fooliſh unwiſe diſpoſition, as by ſtanding up of the lips about the canine teeth, betokeneth a contumelious and clamorous rayler, and thick lips, and a round mouth ſtanding forth, the diſpoſition of a Hog.

The ſnowt is long and ſtrong and yet broad to caſt up the earth for food, having on the tip a riſing griſtle round, and more piked, at the top betwixt the noſtrils, wherewithal it firſt entereth the earth by digging. Upon their under chap there are teeth which grow out of their head, and the Boars have ſome which the females have not: For even as the Elephant hath two teeth growing downward, ſo hath the Boar two growing upward. The male as we have ſaid, hath more then the female, and neither of both do loſe or change them by any courſe of nature. As the Horſe hath his mane, ſo hath a Swine certain briſtles on his neck (called therefore by the *Grecians*, *Lophia*) this neck is broad and thick, and in it lyeth the ſtrength of the beaſt, and therefore it is obſerved by the Phyſiognomers, that a man with ſuch a neck is an angry fool.

Ariſtotle.

The collop next to the neck called vulgarly *Callaſum*, ought to be broad and ſtiffe. It is ſaid of ſore Harts, that they have their gall in their ears, and indeed in the ears of Swine there is found a certain humor not much unlike to a gall: yet leſs liquid, and therefore by reaſon of the denſity or thickneſs thereof, comparable to the humor of the Spleen. The ventricle is large to receive much meat, and to concoct it perfectly, we call it vulgarly the Buck, and there are in it but few ſmooth ribs or creſts, and in the liver parts which are very great, there is a certain hard thing white like a ſtone. The females have twelve udders or dugs under the belly, but never leſs then ten, if they want of twelve; and the Boars have their ſtones on their ſeat behinde them joyned together, which being taken off, are called by the *Latines*, *Polimenta*.

But in the female there is a great miracle of nature, for the place of conception is only open to the udders, or downward, but when her luſt cometh on her, by often tickling and ſtriving ſhe turneth it about to meet with the Boars inſtrument in generation. And this bag is called *Apria*, which hangeth in the female inward, as the ſtones of the Boar do outwardly.

Ariſtotle.

In ſome places there are Swine which are not cloven-footed, but whole-hooſed like a Horſe, yet this is very ſeldom or accidental, for the moſt part all are cloven-footed, *Ariſtotle* affirmeth, that there are Swine whole hooſed in *Illyria*, *Peonia*, and *Macedonia*, and *Albertus* ſaith, that he hath been informed of ſome ſuch ſeen in *England*, and alſo in *Flanders*.

The Anckles are doubtful, as it were in proportion betwixt the Anckle of a whole and of a cloven hoof. Now by this that hath been ſaid and ſhall be added, we muſt make up the deſcription of a perfect Swine, for the better knowledge of the Reader, which may be this, of a ſtraight and ſmall Head. The beſt form is to have large members, except the head and feet, and of one uniform colour, not parted or variable, not old, but of a good race or breed.

There be ſome that for the choice of their Swine do make this obſervation, they chuſe them by their face, by the race, and by the Region; by the face, when the Boar and Sow are of good and beautiful aſpects; by the race, if they bring forth many and ſafely, not caſting Pigs; by the Region, when they are not bred where they be of a ſmall, ſlender, or vile ſtature, and eſpecially this is obſerved in the male, becauſe that in all beaſts they are oftentimes more like the ſire then the dam; therefore it is better in Swine to have a thick, round, and well ſet Hog, then a long ſided one, howbeit ſome approve Hogs with long legs. The buttocks ought to be fleſhy, the belly large and prominent, and the ſnowts ſhort and turning upward, yet the Sow is beſt, that hath the largeſt ſides, if all the other members be correſpondent.

The choice or outward marks of the beſt Swine.

Likewiſe in cold Countries they muſt chuſe their Swine with rough and thick hair, but in warmer and more more temperate Climats, any hair be it never ſo ſmall will ſerve the turn, eſpecially if it be black. And thus much ſhall ſerve in this place for their ſeveral parts and members: Now we will proceed on to their nouriſhment and copulation.

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The food of Swine.

It is moſt certain that Swine are of a hot temperament, and for that cauſe it cometh to paſs that they do not looſe their Winter hair, for by reaſon of the fat neer to their skin, there is abundance of heat which keepeth faſt the roots of the hair. Their food therefore and nouriſhment is eaſily digeſted in every part, for that which is ſo ſtrong in the nouriture of the hair, muſt needs be of correſpondent power in other parts. Some have thought that Swine care not for graſs or herbs, but only roots, and therefore hath a peculiar ſnout to attain them, but I finde by experience, that they will eat graſs above the earth, as well as roots beneath, and they love to feed in herds together. They love above meaſure Acorns, and yet being given to them alone they are hurtful, and bring no leſs damage to them then to Sheep, (though not ſo often) eſpecally to Sows that be with Pig. The beſt time for gathering of Acorns is in *November*, and it is a work for women and children. The Woods of *Italy* are ſo full of Acorns, that they nouriſh abundance of Swine, and that therewith are fed the greateſt part of the *Roman* people.

Nigidius.

Pliny.

They delight alſo in Buck-maſt, and that meat maketh the Swines fleſh light, eaſie of digeſtion, and apt for the ſtomach: In ſome Countries Haws have the ſame vertue to fat Hogs, that is in Acorns, for they make them waighty, ſtraight, neat, and ſweet. The next unto this Holm-berries do fat Hogs, ſaving that they procure looſeneſs, except they be eaten by little and little. There is a tree which hath ſuch bitter fruit (called *Haliphlocus*) whereof no beaſt will taſte, hereof Hogs will taſt, but in extream famin and hunger, when they are without all other food and meat.

The fruit or Apples of Palm-trees (eſpecially ſuch as grow in ſalt grounds near the Sea ſides, as in *Cyrene* of *Africa*, and *Judea*, and not in *Egypt*, *Cyprus*, *Syria*, *Helvetia*, and *Aſſyria*) do fatten and feed Hogs: And indeed there is ſcarſe any food whereof they do not eat, as alſo no place wherein they pick not out ſome living, both in Mountains and Fens, and plain fields, but beſt of all near waters, wherein by the banks ſides they gather many ſweet and nouriſhable morſels.

Places of their abode.

There are no better abiding places for Hogs then are the Woods, wherein abound either Oakes, Beeches, Cork-trees, Holm, wilde Olives, Tamarisk, Haſels, Apples, or Crab-trees, white Thorn, the *Greek Carobs*, Pine-trees, Corn-trees, Lote-trees, Prune-trees, Shrubs, Haws, or wilde Pears, or Medlers, and ſuch like; for theſe fruits grow ripe ſucceſſively one after the other, for there is no time of the year wherein ſome of them are not to be gathered ſoft and nouriſhable, whereby the herds of Swine may be maintained.

But if at any time this food ceaſe, and not to be found, then muſt there be ſome other proviſion out of the earth, ſuch as is corn, or grains, and turn your Hogs to moiſt places, where they may pick up worms, and ſuck up fat fenny water, which thing is above all other things grateful to this beaſt; for which cauſe it pleaſed the holy Ghoſt in Scripture, to compare the pleaſure that beaſtly men take in ſinning, to the wallowing of Swine in the mire. *The Dog* (ſaith S. *Peter*) *is returned to his vomit, and the Sow that was waſhed to wallow in the mire.* For this cauſe alſo you muſt ſuffer them to dig in the water, and to eat Canes and wilde Bulruſhes, likewiſe the roots and tops of Water-creſſes; and you muſt provide to lay up for them in water Acorns, and not ſpare corn to give it them by hand, as Beans, Peaſe, Fitches, Barly, and ſuch like. And *Columella* (from whom I have taken theſe inſtructions) addeth moreover, that in the Spring time before your Hogs go abroad to bite at the ſweet and freſh growing herbs, leſt they provoke them to looſeneſs, you muſt give them ſome ſodden drink, waſh or ſwill, by vertue whereof that miſchief muſt be avoided, for if it be not, ſuch leanneſs will follow, that it will overthrow and kill them.

Varro.

Ælianus.

In ſome Countries they alſo give them the ſcapes or refuſe Grapes of Vintage, and moreover the fruits of yew tree, which is poyſon to Dogs. *Ariſtomachus* the *Athenian* by many and ſundry praiſes advanceth three-leaved-graſs, and among other, for that as when it is green it is commodious for Sheep, ſo being dryed it is wholeſome to Swine. They love green corn, yet it is reported, that if Swine eat of it in the Iſle of *Salamine*, their teeth by the law of the Countrey are beaten out of their mouths. It is wholeſome to give them crude or raw Barly, eſpecially to a Bore when he is to couple with a Sow, but unto a Sow with Pig ſod.

There is in *Bavaria* a kinde of Scallion which beareth a red purple-flower, like to the flower of the Lilly of the Vallies, which is greatly ſought after and devoured by Swine. They alſo ſeek after wilde Vines, and the herb called Hogs-bread, and the root of wilde rapes, which beareth leaves like unto Violets, but ſharper, and a white root without milk: By ſome it is called Bochſpick, becauſe it groweth in Woods among Beeches. They eat alſo fleſh, and abſtain not from fat Bacon, and herein they differ from moſt of the ravening creatures, for Dogs will not taſte of Dogs fleſh, and Bears of Bears, yet will Hogs eat of Swines fleſh, yea many times the dam eateth her young ones: And it is found that Swine have not abſtain'd from the fleſh of men and children, for when they have been ſlain by theeves, before they could be found the greateſt part of their body was torn in pieces and eaten by wilde Swine: And indeed as we ſee ſome Hens eat up the Egs that they themſelves have laid, ſo ſhall we obſerve ſome Sows to devour the fruits of their own wombs, whereat we ought not to marvel as at a monſtrous prodigious thing, but rather acknowledge a nutural voracity, conſtrained in them through famine and impatience.

Albertus.
Ælianus.

They alſo eat Snails and Salamanders, eſpecially the Boars of the Mountains in *Cilicia*, and although there be in Salamanders a very deadly poyſon, yet doth it not hurt them at all, but afterward when men or beaſts taſt of ſuch a Swines fleſh, the operation of the poyſon worketh upon them mortally: neither is this any marvel, for ſo it is when a Frog eateth of a Toad: and whereas if a man eat Hemlock, preſently all his bloud congealeth in his body and he dyeth, but if a Hog eat thereof, he not only not dyeth, but thriveth and groweth fat thereby. *Ariſtotle* reporteth one great wonder of a place about *Thracia* (as he ſaith) wherein for the compaſs of twenty paces there groweth Barly, whereof men eat ſafely, but Oxen and Sheep, and other creatures avoid it as mortal poyſon, and Swine will not vouchſafe to taſt of mens excrements that have eaten thereof, but avoid them carefully.

As Swine delight in meat, ſo alſo they delight more in drink, and eſpecially in the Summer time, and therefore they which keep ſucking Sowes, muſt regard to give them their bellyful of drink twice a day, and generally we muſt not lead them to the waters as we do Goats, and Sheep, but when the heat of Summer is about the riſing of the Dog-ſtar, we muſt keep them all together by water ſides, that ſo they may at their own pleaſure, both drink and lie down to wallow in the mire, and if the coaſts be ſo dry that this cannot be obtained or permitted, then muſt they have water ſet in troughes and veſſels, whereof they may taſt at their own pleaſure, for otherwiſe through want of water they grow Liver and Lung ſick.

Columella.

The miery water doth moſt quickly make them fat, and they will drink Wine or Beer unto drunkenneſs, and in thoſe Countries where Grapes grow, if the Swine come into the Vintage, they grow drunk with eating of Grapes. Alſo if the Lees of Wine be mingled with their meat, they grow fat above meaſure and ſenſeleſs in their fat, whereby it hath been ſeen that a Mouſe hath eaten into the ſides of a fat Hog without the reſiſtance of the beaſt: and the like is reported by *Pliny* of the ſon of *L. Apronius* who had been a Conſul. for his body grew ſo fat that it was taken from him, his body remaining immoveable. And in the Spring time Swine of their own accord grow ſo fat, that many times they cannot ſtand on their legs their bodies be ſo heavy, nor go any whit; ſo that if they are to be removed, they are not to be droven but to be carryed in a Cart.

The great fatneſs of Swine.

Varro and *Creſcentienſis*, do report admirable things of the fatneſs of Swine. For firſt *Varro* ſaith, that he received knowledge from a credible honeſt man in *Portugal*, of a Swine that there was killed, the offall whereof with two ribs was ſent to *Volumnius* a Senator, which weighed twenty and three pounds, and the fat betwixt the skin and the bone, was a foot and three fingers thick. Unto this he addeth the ſtory of the *Arcadian* Sow, who ſuffered a Mouſe to eat into her fat, and breed young ones therein, after ſhe made a neſt: which thing he likwiſe affirmeth of a Cow. And *Creſcentienſis* reporteth of an other *Luſitanian* Swine, which after the death, weighed five hundred ſeventy and five pounds, and the Lard of that Hog was one foot and three fingers broad. And the like may be ſaid of a Hog at *Baſil*, nouriſhed by a certain Oyl-man, in whoſe Lard or fat, after his death were found many paſſages of mice to and fro, which they had gnawed into his body without the ſenſe of the beaſt. Hogs grow fat in ſhort time. In antient days (as *Pliny* writeth) they put them up to fatting threeſcore days, and firſt of all they made them faſt three days together, after ſix days they may ſenſibly be perceived to grow fat. There is not any beaſt that can better or more eaſily be accuſtomed to all kinds of food, and therefore doth very quickly grow fat, the quantity and ſtature of their body conſidered; for whereas an Ox or Cow, or Hart, and ſuch like Beaſts aske long time, yet a Swine which eateth of all ſorts of meat, doth very quickly even in a moneth or two, or three at the moſt, prove worthy the knife and alſo his Maſters table, although in ſome places they put them up to fatting a whole year together, and how much they profit & gather in their feeding, it is very eaſie for them to obſerve that dayly keep and attend them, and have the charge and overſeeing of them.

The meat and beſt manner to fatten Hogs.

And there muſt be had great care of their drink. In *Thracia*, after they put up a Hog to fatting, they give him drink the firſt day, and then let him faſt from drink two days, and ſo give him drink by that proportion till the ſeventh day, afterward they obſerve no more diet for their Swine, but give them their fil of meat and drink till the ſlaughter day. In other Countries they diet them in this ſort; After Beans and Peaſe they give them drink aboundantly, becauſe they are ſolid and hard; but after Oats and ſuch like, as meal, they give them no drink, leſt the meal ſwim up and down in their belly, and ſo be ejected into the excrements without any great profit. There is nothing whereon it liveth, but thereby it will grow fat except grazing, and therefore all manner of grain, Millet ſeed, Figs, Acorns, Nuts, Pears, Apples, Cucumbers, Roots, and ſuch things cauſe them to riſe in fleſh gratefully, and ſo much the ſooner if they be permitted to root now and then in the mire.

They muſt not be uſed to one ſimple, or unmingled, or uncompounded meat, but with divers compounds, for they rejoyce in variety and change like other beaſts, for by this mutation of food, they are not only kept from inflamation and windineſs, but part of it alway goeth into fleſh, and part into fat.

Ælianus.

Some uſe to make their ſty wherein they are incloſed to be very dark and cloſe, for their more ſpeedy fatting, and the reaſon is good, becauſe the beaſt is more apt to be quiet. You ſhall have Bakers that will fat their Hogs with Bran; and in *Elſatia* a Countrey of *Germany*, they fat them with Bean-meal, for thereby they grow fat very ſpeedily, and ſome with Barly-meal wet with flat milk. And in the Alpes they fat them with Whay, whereby their fat and fleſh groweth more white and ſweet then if they were fatted with Acorns, yet Whay is very dangerous: for ſuch is the ravening intemperancy of this beaſt, to ſwill in whatſoever is pleaſant to his taſt, that many times in drinking of Whay their bellies grow extended above meaſure even to death, except that they be dieted by a wiſe keeper, and driven up and down not ſuffered to reſt till it flow forth again backward.

Barly is very nouriſhable to them, whether it be ſod or raw, and eſpecially for Sowes with Pig, for it preſerveth the young ones till delivery, and at the farrowing cauſeth an eaſie and ſafe pigging. And to conclude this part, Millers and Bakers fat with Meal and Bran, Brewers with Ale, or Barly ſteeped in Ale, Oyl-men with the refuſe of Nuts and Grapes.

Albertus.

Some again there be that grow fat with the roots of Fern. When a Sow is very fat ſhe hath alway but little milk, and therefore is not apt to make any good tidy Pigs, and yet as all other beaſts grow lean when they give ſuck, ſo alſo doth Swine. All ſwine in hot Regions by reaſon of a viſcous humor, grow more fat then in the cold regions. In that part of *Friſia* neer *Germany*, they fat Oxen and Swine with the ſame meat, for there you ſhall have in one ſtable an Ox and a Hog tyed behind him at his tail, for the Ox being tyed to the rack eateth Barly in the ſtraw and chaffe, which he ſwalloweth down without chewing, and ſo the ſofteſt thereof is digeſted in his belly, and the other cometh forth whole in his dung, which the Hog licketh up and is therewithal fatned. And it is to be remembred, that Swine gelded or ſplaied, do ſooner fatten then any other.

To conclude, they love the dung of men, and the reaſon thereof is, becauſe the ſeat of their luſt is in their Liver which is very broad and inſatiable, and there is nothing that hath a duller ſenſe of ſmelling then this Beaſt, and therefore it is not offended with any carrion or ſtinking ſmell, but with ſweet and pleaſant ointments, as we ſhall ſhew afterwards.

Of the copulation and breed of Swine.

Concerning their generation or copulation, it is to be noted, that a Boar or male Swine will not remain of validity and good for breed paſt three year old, by the opinion of all the antient, for ſuch as he engendereth after that age, are but weak and not profitable to be kept and nouriſhed. At eight moneths old he beginneth to leap the female, and it is good to keep him cloſe from other of his kinde for two moneths before, and to feed him with Barly raw, but the Sow with Barly ſodden One Boar is ſufficient for ten Sowes; if once he hear the voice of his female deſiring the Boar, he will not eat untill he be admitted, and ſo he will continue pining, and indeed he will ſuffer the female to have all that can be, and groweth lean to fatten her; for which cauſe *Homer* like a wiſe husbandman preſcribeth, that the male and female Swine be kept aſunder till the time of their copulation. They continue long in the act of Copulation, and the reaſon thereof is, becauſe his luſt is not hot, nor yet proceeding from heat, yet is his ſeed very plentiful. They in the time of their copulation are angry, and outragious, fighting with one another very irefully, and for that purpoſe they uſe to harden their ribs by rubbing them voluntarily upon trees. They chooſe for the moſt part the morning for copulation; but if he be fat and young, he can endure it in every part of the year and day, but when he is lean, and weak, or old, he is not able to ſatisfie his females luſt, for which cauſe ſhe many times ſinketh underneath him, and yet he filleth her while ſhe lyeth down on the ground, both of them on their buttocks together.

They engender oftentimes in one year, the reaſon whereof is to be aſcribed to their meat or ſome extraordinary heat, which is a familiar thing to all that live familiarly among men, and yet the wilde Swine couple and bring forth but once in the year, becauſe they are ſeldom filled with meat, endure much pain to get and much cold; for *Venus* in men and beaſts, is a companion of ſatiety, and therefore they only bring forth in the ſpring time, and warm weather, and it is obſerved that in what night ſoever a wilde Hog or ſow farroweth, there will be no ſtorm or rain. There be many cauſes why the tame domeſticall Hogs bring forth and ingender more often then the wilde; firſt becauſe they are fed with eaſe; ſecondly becauſe they live together, without fear, and by ſociety are more often provoked to luſt; on the other ſide the wilde Swine come ſeldom together, and are often hungry, for which cauſe they are more dull and leſſe venereous, yea many times they have but one ſtone, for which cauſe they are called by *Ariſtotle* and the antient *Grecians Chlunes* and *Monorcheis*.

The times of a Sows Boaring.

But concerning the Sow, ſhe beginneth to ſuffer the Boar at eight moneths of age, although according to the diverſity of Regions and air, they differ in this time of their copulation, for ſome begin at four moneths, and other again tary till they be a year old: and this is no marvel, for even the male which engendereth before he be a year old, begetteth but weak, tender, and unprofitable Pigs. The beſt time of their admiſſion is from the Calends of *February* unto the Vernal Equinoctial, for ſo it hapneth that they bring forth the young in the Summer time, for four months ſhe goeth with young, and it is good that the Pigs be farrowed before harveſt, which you purpoſe to keep all the year for ſtore. After that you perceive that the Sows have conceived, then ſeparate them from the Boars, leſt by the raging luſt of their provoking, they be troubled and endangered to abortment. There be ſome that ſay, a Sow may bear young till ſhe be ſeven year old, but I will not ſtrive about that whereof every poor Swineherd may give full ſatisfaction. At a year old a Sow may do well, if ſhe be covered by the Boar in the moneth of *February*. But if they begin not to bear till they be twenty moneths old, or two years, they will not only bring forth the ſtronger, but alſo bear the longer time even to the ſeventh year, and at that time it is good to let them go to rivers, fens, or miery places, for even as a Man is delighted in waſhing or bathing, ſo doth Swine in filthy wallowing in the mire; therein is their reſt, joy, and repoſe. *Albertus* reporteth that in ſome places of *Germany* a Sow hath been found to bear young eight years; and in other till they were fifteen years old; but after fifteen year it was never ſeen that a Sow brought forth young Pigs. If the Sow be fat, ſhe is always the leſſe prone to conceive with young, whether ſhe be young or old. When firſt of all they begin to ſeek the Boar, they leap upon other Swine, and in proceſs caſt forth a certain purgation called *Aprya*, which is the ſame in a Sow which *Hippomanes* is in a Mare, then they alſo leave their herdfellows, which kinde of behavior or action, the *Latins* call by a peculiar Verb *Subare*, and that is applyed to Harlots and wanton Women, by *Horace*;

——— Jamq; ſubando,
Tenta cubilia tectaq; rumpit.

We in *Engliſh* call it Boaring, becauſe ſhe never reſteth to ſhew her deſire till ſhe come to a Boar, and therefore when an old Woman luſteth after a man, being paſt luſt by all natural poſſibility, ſhe is cald *Anus ſubans*. And the Beaſt is ſo delighted with this pleaſure of carnal Copulation, that many times ſhe falleth aſleep in that action, and if the male be young or dull, then will the female leap upon him and provoke him; yea in her rage ſhe ſetteth many times upon men and women, eſpecially if that they do wear any white Garments, or if their *Aprya* and privy place be wetted and moiſtned with Vinegar. They have their proper voices and cries for this time of their Boaring, which the Boar or male underſtandeth preſently.

Pliny.

They are filled at one Copulation, and yet for their better ſafegard, and to preſerve them from abortment, it is good to ſuffer the Boar to cover her twice or thrice; and moreover, if ſhe conceive not at the firſt, then may ſhe ſafely be permitted three or four times together, and it is obſerved that except her ears hang down flagging, and careleſſely, ſhe is not filled but rejecteth the ſeed, but if her ears fall downward, and ſo hang all the time that the Boar is upon her, then is it a moſt certain token that ſhe is filled, and hath conceived with young.

After four moneths (as we have ſaid) the Sow farroweth her Pigs, that is to ſay, in the fifth moneth, as it were in the ſeventeenth week: For ſo is this beaſt enabled by nature to bear twice in the year, and yet to ſuck her young ones two moneths together. And there is no cloven-footed beaſt that beareth many at a time except the Sow, except in her age, for then ſhe beginneth to loſe her *Apria* or purgation, and ſo many times miſcarryeth, and manny times bear but one. Yet this is marvailous that as ſhe beareth many, ſo ſhe engendereth them perfect without blindneſs, lameneſſe, or any ſuch other diſtreſſe, although as we have ſaid before, that in ſome places you ſhall ſee Swine whole hooſed like a Horſe, yet moſt commonly and naturally their feet are cloven, and therefore is the wonder accounted the greater of their manifold multiplication: and the reaſon thereof may ariſe from the multitude and great quantity of their food, for the humor cannot be ſo well avoided and diſperſed in ſo little a body as Swine have, as in Mares and Cowes, and therefore that humour turneth to multiply nature and natural kinde, and ſo it cometh to paſs, that by overmuch humour turned into a natural ſeed, it breedeth much young, and for little humor it bringeth forth a few Pigs, and thoſe alſo are not only perfect, but alſo ſhe is ſufficiently furniſhed with milk to nouriſh them, till they be able to feed themſelves. For as a fat ground or ſoil is to the plants that groweth on it, even ſo is a fruitful Sow to the Pigs, which ſhe hath brought forth.

Niphus.

Ariſtotle.

The number which a Sow beareth.

Their ordinary number which they bring forth and can nouriſh is twelve, or ſixteen at the moſt, and very rare it is to ſee ſixteen brought up by one Sow. Howbeit it hath been ſeen that a Sow hath brought forth twenty, but far more often ſeven, eight or ten. There is a ſtory in *Feſtus* of a Sow that brought forth thirty at a time, his words be theſe; The Sow of *Aeneas Lavinus* did bring forth thirty white Pigs at one time, wherefore the *Lavinians* were much troubled about the ſignification of ſuch a monſtrous farrow, at laſt they received anſwer that their City ſhould be thirty years in building, and being ſo they called it *Alba*, in remembrance of the thirty white Pigs. And *Pliny* affirmeth, that the images of thoſe Pigs and the Sow their dam, were to be ſeen in his days in publick places, and the body of the Dam or Sow preſerved in Salt by the Prieſts of *Alba*, to be ſhewed to all ſuch as deſired to be certified of the truth of that ſtory.

But to return to the number of young Pigs which are ordinary and without miracle bred in their dams belly, which I finde to be ſo many as the Sow hath dugs for, ſo many ſhe may well nouriſh and give ſuck unto, and not more, and it ſeemeth a ſpecial work of God which hath made this tame beaſt ſo fruitful, for the better recompence to man for her meat and cuſtody. By the firſt farrow it may be gathered how fruitful ſhe will be, but the ſecond and third do moſt commonly exceed the firſt, and the laſt in old age is inferior in number to the firſt.

Juvenal hath a compariſon betwixt a white Sow and an Heifer, *Scropha fœcundior alba*, more fruitful then a white Sow; but belike the white Sowes do bring more then any other colour. Now the reaſon of the Poets ſpeech was, becauſe that there was an Heifer in the days of *Ptolmy* the younger, which at one time brought forth ſix Calves; whereupon came the proverb of *Regia Vacca*, for a fruitful Cow, for *Helenus* telleth this to *Aeneas*. Upon the Sow and thirty Pigs there is this anſwer of the Oracle to the *Lavinians* concerning *Alba*;

Cum tibi ſollicito ſecreti ad fluminis undam,
Littoreis ingens inventa ſub ilicibus ſus,
Triginta capitum fœtus enixa jacebit,
Alba ſolo recubans, albi circum ubera nati,
Is locus urbis erit, requies ea certa laborum.

And *Juvenal* ſaith thus of it;

Conſpicitur ſublimis aper, cui candida nomen,
Scropha dedit letis Phrygibus mirabile ſumen,
Et nunquam viſis triginta clara mamillis.

When the young one cometh forth of the dams belly wounded or imperfect, by reaſon of any harm therein received, (it is called *Metacberum*) and many times Swine engender Monſters, which cometh to paſs oftner in the little beaſts then in the greateſt, becauſe of the multitude of cels appointed for the receipt of the ſeed, by reaſon whereof, ſometimes there are two heads to one body, ſometimes two bodies and one head, ſometime three legs, ſometime two before and none behinde; ſuch were the Pigs without ears, which were farrowed at that time that *Dionyſius* the Tyrant went to war againſt *Dion*, for all their parts was perfect but their ears, as it were to teach how inconſiderately againſt all good counſel, the Tyrant undertook that voyage; ſuch are commonly found to be bred among them, alſo now and then of an unſpeakable ſmalneſs like Dwarfs, which cannot live, having no mouth nor ears, called by the *Latines Aporcelli.* If a Sow great with Pig do eat abundantly of Acorns, it cauſeth her to caſt her farrow and to ſuffer abortment; and if ſhe grow fat, then is ſhe leſs fruitful in Milk.

Now for the choice of a Pig to keep for ſtore, it muſt be choſen from a luſty and ſtrong dam bred in the Winter time, (as ſome ſay) for ſuch as are bred in the heat of Summer are of leſs value, becauſe they prove tender, ſmall, and overmoiſt, and yet alſo if they be bred in the cold Winter they are ſmall, by reaſon of extreme cold, and their dams forſake them through want of milk: and moreover becauſe they through hunger pinch and bite their dugs, ſo as they are very unprofitable to be nouriſhed and preſerved in the Winter time, rather they are fit to be killed and eaten young.

But this is to be obſerved for reconciliation of both opinions, namely, that in hot Countries ſuch Hogs are preferred that be bred in the Winter, but in cold, ſuch as are bred in *March* or *April*: within ten days after their farrowing they grow to have teeth; and the Sow ever offereth her foremoſt Dug to the Pig, that cometh firſt out of her belly, and the reſidue take their fortune as it falleth, one to one, and another to another, for it ſeemeth ſhe regardeth the firſt by a natural inſtinct, not ſo much to prefer it, as that by the example thereof the reſidue may be invited to the like ſucking by imitation, yet every one (as *Tzetzes* ſaith) keepeth him to his firſt choice. And if any of them be taken away from his Dug that is killed or ſold, that dug preſently dryeth, and the milk turneth backward, and ſo until all be gone, one excepted and then it is nouriſhed with no more then was ordained at the beginning for it. If the old Sow want milk at any time, the ſupply muſt be made by giving the young ones fryed or parched corn, for raw corn or drink procureth looſeneſs; and it is beſt for them to be ſuckled in the place where their Dam uſually abideth.

For weaning of them it is not good to let more then five or ſix ſuck of her at one time, for although every one ſuck but his own Dug, yet by the multitude, the milk is dryed up: After two months old they may ſafely be disjoined from their Dam and weaned, ſo as every year the Sow may breed eight months, and give ſuck four: it is beſt to let them feed aſunder from their dams, till they have utterly forgotten to ſuck. And thus much for the procreation and nouriſhment of old and young Swine.

The office and firſt inſtitution of Swine-herds.

This beaſt loveth ſociety, and to live in herds or flocks together, and therefore the Ancients have invented Hog-keepers, whom they call Swine-herds, wherein there was wont to be conſidered theſe inſtructions, firſt he accuſtomed them to the ſound of his horn, for by that he called them abroad out of their folds to their feedings, for they never ſuffered above twelve together at the trough or parcel of meat. It becometh a Swine-herd (ſaith *Collumella*) to be vigilant, diligent, induſtrious, and wiſe, for he muſt carry in his head the ſtate of all that he nouriſheth, both old and young, barren and fruitful; and conſider the time of their farrowing, whether they be near at hand, or far off, that ſo none may be loſt through the want of his obſervation; being farrowed, he muſt conſider and look upon them to ſee which are fit for ſtore, and which are not, what are their natures and probabilities; how much milk their dam is able to afford them, and how many ſhe is to bring up, eſpecially to regard that every Sow bring up no more then her own Pigs; for Swine being out of the ſty do mingle one with another, and loſe their own young ones, and when ſhe lyeth down to give them ſuck, ſhe lendeth her paps as well to ſtrangers as to her own, and therefore herein muſt the care and wit of the herdſman appear, for if there be many, he muſt ſhut up every Sow with her young; and if that cannot be, then with a little Pitch or Tar let him give ſeveral marks to the ſeveral farrows, that ſo his memory may not be confounded. Another remedy to avoid the confuſion of young Pigs one among another, is ſo to frame the threſhold of the ſtye, that the Pigs may not be able to go in and out; for the Sow can more eaſily go over, and ſo ſhe may be eaſed of their company, and they ſafely included at home, and ſo ſhall no ſtranger break into them; but every one in their own neſt expect the return of their dam, which ought not to exceed the number of eight; for although the fœcundity of Swine be great, yet it is better to kill off two or three, if their number be above eight, then to permit them to ſuck their dam; for this multitude of ſuckers do quickly draw away all nouriſhment from the dam: and when they are but eight at the moſt, regard muſt be had that the Sow be well fed with ſod Barly, or ſuch like, leſt through a covetous pinching of the beaſt, leanneſs follow to her overthrow and deſtruction. Another point of a good Swineherd, is to ſweep oftentimes the ſtye, for although ſuch be the nature of the Beaſt, that it defileth all things, and will be wallowing in the mire, yet will ſhe alſo be very deſirous of a clean lodging, and delight much in the ſame; and when they be ſhut up, they muſt not be encloſed like other beaſts altogether, for one of them will throng and ly upon another, but there muſt be ſeveral porches and hatches to ſever and diſtinguiſh their lodgings, ſo as the great with Pig may lie in one place, and the other ready to be delivered by themſelves, free from all incurſion and violence. Theſe diviſions or ſeparations ought to be ſome 3. or 4. foot high, ſo as they may not be able to leap over to one another, and not covered, to the intent that every Swineherd both man and boy may freely look over to them, and tell them if any chance to be miſſing, or elſe help a poor Pig when it is overlaid by his dam.

Columella.
Palladius.

Whenſoever the Swineherd clenſeth the ſty, then let him caſt in ſand or ſome other drying thing into it, that all the moiſture and wetneſs may be drunk up. The dam ought not to be permitted for the firſt ten days to go forth of the ſtable, except to drink, and afterward let her go abroad into ſome adjacent paſture, not far off, that ſo by her often return ſhe may the better give ſuck to her young ones. When the little ones are a fortnight or three weeks old, they deſire to follow their parent, wherefore they muſt be ſhut up from their mother, and feed alone in her abſence, that they may better endure it afterward when they ſhall be weaned. They muſt be fed in the Summer time in the morning, before the heat be ſtrong, and in the heat of the day led into ſome watry or ſhadowy place, that ſo they may be freed from extremity till the cool of the day return again, wherein they muſt be ſuffered to feed. In the Winter time they are not to be led abroad till the froſt and ice be thawed and diſſolved. Ten Boars are ſufficient for an hundred Sows, and although ſome keep five or ſix hundred in a herd, as we may read in Scripture of the great herds of Swine, into which our Saviour Chriſt permitted the Devils to enter, yet is it not ſafe or wholeſome to keep above an hundred together, for a leſs flock or herd requireth leſs coſt, charge, and attendance. There is a ſpeech of *Tremellius Scrofa*, tending to the commendation of the cuſtody or nouriſhing of Swine, for thus he writeth: *Agriculturæ ab initio fui ſtudioſus, nec de pecore ſuillo mihi minor cura eſt, quam vobis magnis pecuariis. Cui enim ea res non eſt communis? quis enim noſtrum fundum colit quin ſues habet? & quis non audierit patres noſtros dicere ignavum & ſumptuoſum eſſe, qui ſuccidiam in carnario ſuſpendit potius ab laniario quam ex domeſtico fundo?* That is to ſay, I have been long given to follow husbandry, and I have alway had as great care of my Swine, as other men of greater cattel. For what is there, whereunto Swine are not profitable? who tilleth land, and keepeth not hogs? and who hath not heard our fathers ſay, that he is an idle ill husband which hangs up all his proviſion in the ſhambles, and liveth rather upon the Butchers, then upon his own ground? Thus far *Tremellius*.

Another part of a good Swineherd is, to look to the gelding of his Swine, and ſplaying of the females, for if all be ſuffered to procreate and engender, it is more danger that Swine would in ſhort time eat up men, rather then men Swine. The *Latines* call ſuch a Hog gelded *Macalis*, and *Porcaſtrus*, that is *Porcus caſtratus*, the *Germans*, *Ein barg*, or *Bætz*, from whence ſeemeth to be derived our *Engliſh* Barrow-hog (for ſo we call a gelded male-hog) and a female Baſs. The beſt time therefore to geld them is in the old Moon, or as we ſay in the wane of the Moon, but *Heſiod* preſcribeth, that an Ox and a Boar ſhould be gelded in the ſecond quarter, and firſt day thereof, and *Ariſtotle* is of opinion that it skilleth not what age a Boar be when he is libbed; but it is clear by the beſt experienced among theſe beaſts, there are two times of gelding them; one in the Spring, and the other in the Autumn, and this is to be done after a double manner; Firſt, by making two inciſions or wounds upon his ſtones, out of which holes the ſtones are to be preſſed forth.

Pliny.

The ſecond way is more perillous, yet more cleanly; for firſt of all at one wound or inciſion they take out one ſtone, then that being forth, with their knife they cut the ſmall skin which parteth the ſtones in the cod, and ſo preſs forth the ſecond ſtone at the firſt wound, afterward applying to it ordinary medicines, ſuch as we will deſcribe in the treatiſe of their diſeaſes.

And the opinion of *Varro* is, that it is good to lib them at half a year old, or at a year old, or at three or four year old, for their better fatting; but beſt at a year, and not under half a year. When the ſtones are taken forth of an old Boar, ſuppoſe two, or three, or four year old, they are called by the *Latines Polimenta*, becauſe with them they poliſhed and ſmoothed garments.

The female alſo is gelt or ſplayed, (although ſhe often bore Pigs) whereof they open the ſide (neer her loins) and take away from her *Apria*, and receptacles of the Boars ſeed, which being ſewed up again, in ſhort time is encloſed in fat; this they do by hanging them up by their fore-legs, and firſt of all they which do it moſt commodiouſly, muſt cauſe them to faſt two days before; and then having cut it, they ſew up and cloſe faſt again the wound or inciſion, and this is done in the ſame place of the female, that the ſtones are to be taken out in the male (as *Ariſtotle* writeth) but rather it appeareth by good examination and proof, that it is to be cut out on the right, againſt the bone (called *Os ſacrum.*) And the only cauſe of this Sow-gelding is, for their better growth and fatning; which in ſome Countries they uſe, being forced thereunto through their penury and want of food; but whereas is plenty of food, there they never know it: and the inventers hereof were the *Grecians*, whoſe cuſtom was to cut out the whole matrix. And thus much for libbing, gelding, and ſplaying of Swine.

Feſtus.
Abnezoor,

This beaſt is a moſt unpure and unclean beaſt, and ravening; and therefore we uſe (not improperly) to call *obſcœne* and filthy men or women, by the name of Swine or Sows, They which have foreheads, eye-lids, lips, mouth, or neck, like Swine, are acounted fooliſh, wicked, and wrathful: all their ſenſes (their ſmelling excepted) are dull, becauſe they have no Articles in their hearts, but have thick bloud; and ſome ſay, that the acuteneſs and ripeneſs of the ſoul, ſtandeth not in the thickneſs of the bloud, but in the cover and skin of the body, and that thoſe beaſts which have

The nature of this beaſt.
Adamantius.
Pliny.

the

the thickeſt skins, are accounted the moſt blockiſh and fartheſt from reaſon, but thoſe which have the thinneſt and ſofteſt, are the quickeſt of underſtanding: an example whereof is apparent in the Oyſter, Ox, and Ape. They have a marvailous underſtanding of the voice of their feeder, and as ardent deſire to come at his call, through often cuſtom of meat, whereupon lyeth this excellent ſtory.

Ælianus. When certain Pirates in the *Tyrrhene ſea*, had entred a Haven, and went on land, they came to a Swines ſtie, and drew out thereof divers Swine, and ſo carryed them on Shipboard, and looſing their Anckers and tacklings, do depart and ſail away. The Swineherds ſeeing the Pirats commit this robbery, and not being able to deliver and reſcue their Cattle, becauſe they wanted both company and ſtrength, ſuffered the Theeves in ſilence to ſhip and carry away their Cattle; at laſt, when they ſaw the Theeves rowing out of the Port, and lanching into the deep, then they lift up their voices, and with their accuſtomed cries or cals, called upon their Swine to come to their meat; as ſoon as the Swine heard the ſame, they preſently gat to the right ſide of the Veſſel or Bark, and there flocking together, the ſhip being unequally ballanced or loden, overturned all into the Sea, and ſo the Pirates were juſtly drowned in reward of the theft, and the ſtolne Swine ſwam ſafely back again to their Maſters and Keepers.

The nature of this Beaſt is to delight in the moſt filthy and noiſome places, for no other cauſe (as I think) but becauſe of their dull ſenſes. Their voice is called *Grunnitus* gruntling; *Sordida ſus paſcens ruris gramina grunnit*; which is a terrible voice to one that is not accuſtomed thereunto, (for even the Elephants are afraid thereof) eſpecially when one of them is hurt or hanged faſt, or bitten, then all the reſidue as it were in compaſſion condoling his miſery, run to him and cry with him, and this voice is very common in Swine at all hands to cry, except he be carryed with his head upwards towards heaven, and then (it is affirmed) he never cryeth, the reaſon whereof is given by *Aphrodiſian*: becauſe it is alway accuſtomed to look downward, and therefore when it is forced to look upwards it is ſuddenly appaled and afraid, held with admiration of the goodly ſpace above him in the heavens, like one aſtoniſhed, holdeth his peace (ſome ſay that then the artery of his voice is preſſed) and ſo he cannot cry aloud. There is a fiſh in the river *Achelous* which gruntleth like a hog, whereof *Juvenal* ſpeaketh, ſaying: *Et quam remigibus grunniſſe Elpenora porcis.* And this voice of Swine is by *Cæcilius* attributed to drunken men. The milk of Swine is very thick, and therefore cannot make whay like a Sheeps, howbeit it ſuddenly coagulateth and congealeth together.

Horus. *Calcagninus.* *Varro.* *Pliny.* *Sextus.*

Among divers males or Boars when one of them is conqueror, the reſidue give obedience and yeeld unto him, and the chief time of their fight or diſcord is in their luſt, or other occaſions of food, or ſtrangeneſs, at which time it is not ſafe for any man to come neer them, for fear of danger from both parties, and eſpecially thoſe which wear white garments. And *Strabo* reporteth in general of all the *Belgian* Swine, that they were ſo fierce, ſtrong, and wrathful, that it was as much danger to come near them as to angry Wolves. Nature hath made a great league betwixt Swine and Crocodiles, for there is no beaſt that may ſo freely feed by the banks ſides of *Nilus*, as the Swine may, without all hurt by the Crocodile. Other Serpents, eſpecially the ſmaller Serpents, are oftentimes devoured by Swine. *Ariſtotle* ſaith, that when many of them are together they fear not the Wolf, and yet they never devour any Wolf, but only with their ſcaring and gruntling noiſe fear them away. When a Wolf getteth a Swine, he devoureth him, and before he can eat him draggeth him by the ears to ſome water to cool his teeth in his fleſh (which above meaſure burn in devouring his fleſh.) It hath been ſeen that a Lion was afraid of a Sow, for at the ſetting up of his briſtles he ran away.

It is reported that Swine will follow a man all the day long which hath eaten the brain of a Crow in his pottage: and *Nigidius* affirmeth, that Dogs will run away from him that hath pulled off a tick from a Swines back. The people of *Moſſynæcum* did engender Man with Woman publickly like Swine; and *Stobæus* writing againſt Women ſaith, that ſome of them are derived from one beaſt, and ſome from another, and namely a woman deſcended of a Sow ſitteth at home, and doth neither good nor harm: but *Simonides* writeth otherwiſe, and namely that a Woman born of a Sow ſitteth at home ſuffering all things to be impure, unclean, and out of order, without decking, dreſſing or ornament, and ſo ſhe groweth fat in her unwaſhed garments. And there are many fictions of the transforming into Swine. *Homer* faigneth that the companions of *Vlyſſes* were all by *Circe* turned into Swine, which is interpreted in this manner, *Circe* to ſignifie unreaſonable pleaſure, *Vlyſſes* to ſignifie the ſoul, and his companions the inferior affections thereof, and ſo were the companions of *Vlyſſes* turned into Swine by *Circe*. When unreaſonable pleaſures do overcome our affections and make us like Swine in following our appetites: and therefore it was the counſell of *Socrates*, that no man ſhould at banquet eat more then ſufficient, and thoſe which could not abſtain from them, ſhould forbear their company that perſwaded them to eat when they were not hungry, and to drink when they were not thirſty, and therefore he ſuppoſed that it was ſaid in jeſt that *Circe* turned men into Swine. When as *Vlyſſes* by his own abſtinence and *Mercury* his counſell, was delivered and ſaved from that moſt ſavage transformation, which cauſed *Horace* thus to write;

Xenophon.

Vlyſſes ſi bibiſſet pocula Circes——*Cum ſociis*
Vixiſſet canis immundus vel amica luta ſus.

And from this came the original proverb of *Porcellus Acarnanius* for a tender and delicate perſon, uſed ſo to fulneſs, that all penury is death unto him. Sweet ſavours as we have ſhewed already, are very hurtful to Swine, eſpecially the ſweet oyl of Marjoram. Whereupon came the proverb *Nil cum amaracino ſui*; and *Lucretius* ſpeaketh hereof in this ſort;

Deniq; amaracinum fugitat ſus, & timet omne
Unguentum: nam ſetigeris ſubus acre venenum eſt.

And for this cauſe *Tullius Cicero* ſaith, *Illi alabaſtrus putet unguenti plena*; that is, a box of Alabaſter full of ointments is diſpleaſing to this Beaſt, for as the *Scarabee* or Horſe flie forſaketh ſweet places to light and ſit upon Horſe dung, even ſo doth Swine. There be many of the antients that have delivered merrily *Anima ſuis pro ſale*, that the Swines ſoul is in their body but in ſtead of ſalt to keep the fleſh from ſtinking, even as for no other purpoſe many among men ſeem to live and retain ſoul in body. They are very clamorous, and therefore are uſed for talking and pratling fellowes, whereupon the *Greek* Poet *Lucilius* tranſlated by *Eraſmus* alludeth, when he ſaith in this manner, under *Alia Menecles, alia porcellus loquitur*;

Cælius.

Sucula, bos, & capra mihi periere Menecles,
Ac merces horum nomine penſa tibi eſt.
Nec mihi cum Othryade quicquam eſtve fuitve negoti,
Nec fures ullos huc cito Thermopylis.

Sed contra Eutychidem nobis lis: proinde quid hic mi
Aut Xerxes facit, aut quid Lacedæmonii?
Ob pactum & de me loquere, aut clamavero clare,
Multo aliud dicit ſus, aliud Menecles.

And to conclude, in *Latin* they ſay *Sus Minervam*, when an unlearned dunce goeth about to teach his better or a more learned man, then doth the Hog teach *Pallas*, or as we ſay in *Engliſh*, the foul Sow teach the fair Lady to ſpin.

There are in Swine many preſages and foretokens of foul weather, as Swineherds have obſerved: as firſt if they lie long wallowing in the mire, or if they feed more greedily then they were accuſtomed, or gather together in their mouths, hay, ſtubble, or ſtraw, as *Aratus* writeth; or if they leap and dance, or friſk in any unwonted ſort: and for their copulation, in years that will prove moiſt, they will ever be boring, but in dryer years they are leſſe libidinous.

The greateſt harm that cometh by Swine is in rooting and turning up of the earth, and this they do in Corn fields, for which we have ſhewed that the *Cyprians* made a law to beat out the teeth of ſuch Swine: for this cauſe *Homer* writeth that *Irus* threatneth *Ulyſſes*, becauſe his companions eat up all his corn, to knock out their teeth: yet ſometimes the husbandmen admit them of purpoſe, both into their land before it be plowed, and alſo into their vineyards. It is ſaid that the *Egyptians* forbear to ſacrifice them, becauſe they tread in their Corn in their fields after it is ſwelled out of the earth, ſo as the Birds cannot gather it up again, as we have ſhewed before. The *Jews* and the *Egyptians* accounted this Beaſt moſt unclean. The *Jews*, not as the vain *Gentiles* imagined, becauſe they worſhipped it, for that it taught men to plow the earth, but for the Law of God. And the *Egyptians* hold it a profane thing, and therefore they had an antient law, that no Swineherd ſhould come into their Temple, or that any Man ſhould give him his Daughter in Marriage. It is very certain that they were wont to be uſed in ſacrifices. The ſaid *Egyptians* never ſacrificed them to the Moon and to *Bacchus*, and at other times it was unlawful, either to offer them, or to eat them: but it ſeemeth by many Authors, that their firſt ſacrifices were of Swine, for we read of antient cuſtoms in *Hetruria*, that at their marriage feaſts they offered and ſacrificed a Sow to *Venus*, and at other times, eſpecially in Harveſt, they did ſo to *Ceres*. The *Latins* do hold a Swine very grateful and ſacred to *Jupiter*, becauſe as they believed that a Sow did firſt of all lend her paps to him, and therefore all of them worſhip a Sow, and abſtain from her fleſh. Likewiſe in *Myſia* and *Phœnicia*, there were Temples of *Jupiter*, wherein it was forbidden to ſacrifice or kill Swine by a publick Law, like as it was amongſt the *Jews*. When the Kings of *Sparta* were firſt of all choſen into that royal place, they were permitted to execute the Prieſts office, and to the intent that they might never want ſacrifices, there was a priviledge granted them to take a Pig of every Sow: and when they ſacrificed to *Jupiter* a Swine, it muſt be after or at a triumph: they were alſo ſacrificed to *Neptune*, becauſe they were impetuous and ranging Beaſts; and a Boar was holy to *Mars*, according to this ſaying of *Pomponius* in *Attellana*, *Mars tibi facturum, ſi unquam rediero, bidente verre.* And there was a cuſtom among the *Athenians*, when a Man had ſlain an hundred enemies, he was permitted to offer up to *Mars*, ſome part of a man at *Lemnos*, and afterward they grew out of liking of this vain cuſtom, and in ſtead thereof ſacrificed a Barrow or gelded Hog, and when they houſled their army, they did it with Hogs, Sheep or Buls, and nothing elſe, and they compaſſed it about three times with pomp and ſtately proceſſion, and at laſt ſlew and offered them to *Mars*. They were wont to ſacrifice a Hog for a Man that had recovered his wits after he had been mad, and alſo they ſacrificed Swine to *Silvanus*, according to theſe Verſes;

Cædere Silvano porcum quadrante lavari:
And again;
Tellurem porco Silvanum lacte piabant.

Their *Pagan* God *Terminus*, had an Ewe and a young Sow offered to him (as *Ovid* writeth) although by the laws of *Numa*, all ſacrifices of living things were forbidden unto him. To *Ceres* and *Bacchus*, we have ſhewed already how they were offered, and the reaſon of their ſacrificing was, becauſe they were hurtful to all green Corn and Vines.

> *Prima Ceres avidi gaviſa eſt ſanguine porci,*
> *Ulta ſuas merita cæde nocentis opes,*
> *Nam ſata vere novo teneris lactentia ſuccis,*
> *Eruta ſetigeræ comperit ore ſuis.*

And again in another place he writeth thus;

> *Prima putatur hoſtia Sus meruiſſe mori,*
> ——————— *quia ſemina pando*
> *Evertit roſtro, ſpemq; interceperit anni.*

The time of their ſacrificing to *Ceres* was in *April*, wherein the Prieſts with Lamps and Torches, and apparelled in white garments, did firſt of all kill a female Swine, and then offer her; and ſometime this was a Sow with farrow, becauſe thereby in a myſtery they prayed for the fruitfulneſs and fecundity of the earth: and for theſe and ſuch like cauſes we read of titles put upon them, as *Porca præcidanea*, for the Sow that was ſlain before the reaping, and *Porca præſa*, for the Sow that was offered at a Funeral for the ſafety of all the family, wherein the dead man lived. They alſo ſacrificed a barren Sow to *Proſerpina*, becauſe ſhe never bore children, and to *Juno* in the Calends of every moneth: And thus much for their ſacrificing.

Now we are to come to the uſe of Swine and their ſeveral parts; firſt of all it is certain that there is no Beaſt leſſe profitable being alive then a Hog, and yet at his latter end he payeth his Maſter for his keeping. *Cicero* ſaid well, *Sus quid habet præter eſcam, cui quidem ne putreſceret, animam ipſam pro ſale datam eſſe dicit Chryſippus.* A Hog hath nothing in him beſides his meat, and that therefore the ſoul thereof was given to it in ſtead of ſalt to keep it from ſtinking: for indeed in Lions, Dogs, Bears, Horſes, and Elephants, all their virtue lyeth in their minds, and their fleſh is unprofitable and good for nothing, but the Swine hath no gifts at all in the minde, but in the body, the life thereof keeping the fleſh and body from putrefaction. And there is no beaſt that God hath ordained for domeſtical proviſion of food and meat to man, except Hares and Conies, that is ſo fruitfull as Swine are. God (as we have touched already) Levit. 11. Deut. 14. forbad his people of *Iſrael* to eat hereof, becauſe it was an unclean Beaſt not chewing the cud; and furthermore the obſervation of *Procopius* is memorable, that whereas the *Egyptians* did worſhip with divine worſhip, both Oxen, Kine, and Sheep, and would not eat of their fleſh or kill them in ſacrifice, yet did eat, and kill, and ſacrifice Swine.

Gillius.

The *Jews* were permitted and commanded to eat Oxen and Sheep, and abſtain from the fleſh of Swine; thus manifeſting how different his ways and thoughts are from the ways and thoughts of men. The Lord doth not this for policy, but to try the obedience of his people, placeth therein one part of his worſhip, and therefore by his Prophets, Eſa. 65. and 66. calleth the eating of Swines fleſh abomination, and threatneth thereunto a certain unavoidable judgement and damnation. The woman and her ſeven ſons which were apprehended by King *Antiochus*, and by him tempted to eat Swines fleſh which they refuſed to do (being againſt the law of their God) are remembred as moſt worthy Martyrs of his Church, that endured, cutting off their hands and feet, pulling out their tongue, and ſeething in a boyling Caldron with other exquiſite torments incident to ſuch death, as is recorded by *Jaſon* 2. *Macab.* 6. We read that *Heliogabalus* did abſtain from Swines fleſh, becauſe he was a *Phænician*, and they forbore to eat it. The women of *Bracea* in *Africk*, do never taſt of Cowes fleſh or Swines fleſh.

The *Arabian Scenites* never eat hereof, and Swine cannot live in their Countries. (*Cteſias* and *Ælianus* affirme) that in *India* there are no Swine, either tame or wilde, and that the *Indians* do as much forbear to eat of Swines fleſh, in deteſtation thereof, as they do of Mans fleſh.

Now concerning the fleſh of Swine, many opinions are held about the goodneſs and evill thereof, yet *Hippocrates* writeth, that *Porcinæ carnes pravæ ſunt quum fuerint crudiores & ambuſtæ, magis autem choleram generant, & turbationem faciunt, Suillæ carnes optimæ ſunt omnium carnium*; that is, The fleſh of a Boar being raw or roaſted, is worſt of all other, becauſe it engendereth Choler and wilde windy matter in the ſtomach; but the fleſh of a Sow is the beſt of all fleſh, with this proviſo, that it neither exceed in fatneſs, leanneſs, or age.

There is a merry and witty anſwer of a memorable Noble man to an old Gentlewoman (if not a Lady) who diſpraiſed Bacon at the Noble mans table, and ſaid it was a churliſh, unpleaſant meat. The Lord underſtanding a privy Emphaſis in that ſpeech againſt himſelf, (for his name was written with thoſe Letters and ſyllables) anſwered her: you ſay truth, if the Bacon be a piece of an old Sow (as peradventure ſhe ſeemed to be at that time.)

The beſt opinion about the concoctive quality of this fleſh is, that then it is beſt when it is in middle age, neither a Pig, nor an old Hog, for a Pig is over moiſt, like the Dam which is the moiſteſt of all other earthly Beaſts; and therefore cannot but engender much flegme: and for this cauſe the fatteſt are reproved for a good diet, for that it cannot digeſt well through over much humidity.

And the old Swine are moſt hard of Concoction, (yea though they be ſcorched or ſindged at the fire) becauſe thereby is increaſed in their fleſh much acrimony and ſharpneſs, which in the ſtomach of men turneth into Choler: for they bite all the veſſels reaching to the ſtomach, making a derivation of all thoſe ill humors into the belly and other parts.

I do not like their opinion, which think that it is better cold then hot, for fear of inflamation; this rule is good in the fleſh of Goats (which are exceeding hot) but in Swine, where is no predominancy but of moiſture, it is better to eat them hot then cold, even as hot Milk is more wholeſome then cold. *Hippocrates* doth preſcribe the eating of Swines fleſh in the ſickneſs of the Spleen; and *Cœlius Aurelianus* forbiddeth the ſame in the Palſie or Falling ſickneſs.

Galen is of opinion that *Caro porcina potentiſſime nutrit*, nouriſheth moſt ſtrongly, and potently; whereof he giveth an inſtance for a reaſon taken from Champions, Combatants, or Wreſtlers, if the day before they wreſtle or fight, they feed on an equall quantity of any other fleſh, they feel themſelves weak and feeble in compariſon of that is gathered from Swines fleſh: and this (he ſaith) may be tryed in Laborers, Mioners, Diggers, and Husbandmen; which retain their ſtrength as well (if not better) by eating of Swines fleſh or Bacon as any other meat: For as Beef in thickneſs and ſolidity of ſubſtance to the eyes appearance, excelleth Pork or Bacon, ſo Pork and Bacon excelleth and is preferred before Beef, for a clammy nouriſhing humor. And this compariſon betwixt Pork and Beef, *Galen* amplyfieth farther in theſe words, Of Swines fleſh, thoſe are beſt for men in their middle and ripe age, which are of Hogs of an anſwerable age, and to other which are but growing to a ripeneſs and perfection, Pigs, Sheates, and young growing Swine, are moſt nouriſhable. And on the contary, young growing Oxen are moſt nouriſhable to men of perfect years and ſtrength, becauſe an Ox is of a far more dry temperament then a Hog.

A Goat is leſſe dry then an Ox, and yet compared to a Man or a Swine, it excelleth both of them; for there is a great reſemblance or ſimilitude betwixt a Mans fleſh and Swines fleſh, which ſome have proved in taſt, for they have eaten of both at one Table, and could finde no difference in one from the other: For ſome evill Inn-keepers and Hoaſts have ſo deceived men, which continued a great while, not deſcryed or puniſhed, untill at laſt the finger of a man was mixed therewith, and being found, the Authors received their reward. Swines fleſh alſo is leſſe excremental then Pigs fleſh, and therefore more nutrible, for the moiſter that the fleſh is, the ſooner it is diſperſed, and the vertue of it avoided, and old Swine notwithſtanding their primitive and natural moiſture, yet grow very dry, and their fleſh is worſt of all, becauſe in nature humidity helpeth the concoction thereof.

All Swines fleſh being concocted engendereth many good humors, yet withal they contain a kind of glutinous humor, which ſtoppeth the liver and reins, eſpecially in thoſe which by nature are apt to this infirmity. And although ſome are of opinion, that the wilde Boar is more nouriſhable then the tame Swine, becauſe of his laborious courſe of life, and getting his prey; yet it appeareth that the tame Swine by their reſty life, and eaſie gathering of their meat, are made more fit for nouriſhment of man, for they are more moiſt: and Swines fleſh without convenient moiſture (which is many times wanting in wilde Boars) is poyſon to the ſtomach, and yet for a man that hath propounded to himſelf a thin extenuating diet, I would wiſh him to forbear both the one and the other, except he uſe exerciſe, and then he may eat the ears, or the cheeks, or the feet, or the haſlet, if they be well ſod or dreſſed: provided they be not freſh, but ſauced or powdred; And it is no marvel that Swines fleſh ſhould ſo well agree with ours, for it is apparent that they live in dirt, and love to muddle in the ſame.

And if any man ask, how it cometh to paſſe, that Swine which both feed and live ſo filthily, ſhould be ſo nouriſhable to the nature of man; ſome make anſwer, that by reaſon of their good conſtitution of body, they turn ill nutriment to a good fleſh: for as men which be of a ſound, perfect, and healthy diſpoſition or temperature, are not hurt by a little evill meat, which is hard of digeſtion; even ſo is it with well conſtituted and tempered Swine, by continual feeding upon evill things, they grow not only to no harm, but alſo to a good eſtate, becauſe nature in proceſs of time draweth good out of evill: But if men which have moiſt ſtomachs, do eat of Swines fleſh, then do they ſuffer thereby great harm, for as water powred on wet ground, increaſeth the dirt; ſo moiſtneſs put upon a moiſt ſtomach, increaſeth more feebleneſs: but if a man of a dry and moiſt ſtomach do eat hereof, it is like rain falling into a dry ground, which begetteth and engendereth many wholeſome fruits and hearbs. And if a Swine be fatted with dryed figs or nuts, it is much more wholeſome. With Wine all Swines fleſh is moſt nouriſhable, and therefore the Univerſity of *Salernum*, preſcribed that in their verſes to the King of *England*, and alſo they commended the loines and guts:

Ilia porcorum bona ſunt, mala ſunt reliquorum.

And *Fiera* deſcribeth the eating of Hogs-fleſh in this manner;

Sus tibi cœnoſo ſit cœna domeſticus ore,
Grata ferat nobis menſa hyemalis aprum.

Ille licet currat de vertice montis, aquoſe
Carnis erit, pluri ſed tamen apta cibo eſt.
Hinc feritas ſilveq; domant, & inania ſaxa,
Poſt melius poſita ruſticitate ſapit.

And whereas *Hippocrates* commended Swines fleſh for Champions and Combatants; it is certain, that *Bilis* the Champion through eating of Swines fleſh, fell to ſuch a height of choler, that he caſt it upwards and downwards.

When the womb of a Woman is ulcerated, let her abſtain from all Swines fleſh, eſpecially the eldeſt and the youngeſt It is not good for any man to taſt or eat this fleſh in the Summer time, or any hot weather, for then only it is allowed when extreme froſts have tempered it for mans ſtomach, and the ſtomach for it: the fleſh of wilde Swine is moſt of all hurtful to them that live at eaſe, without exerciſe, becauſe that they are immoderately given to ſleep. Some are of opinion that a ſow which is killed immediately after the Boar hath covered her, is not ſo wholeſome as other: *Heliogabalus* obſerved this cuſtom, to eat one day nothing but Pheſant Hens, another day nothing but Pullen, and the third day nothing but Pork.

Eraſmus.
Macrobius.

There was in antient time a diſh of meat called *Trojanus*, the *Trojan* Hog, in imitation of the *Trojan* Horſe, for as that was ſtuffed within with many armed men, ſo was this with many ſeverall meats, and whole Beaſts, as Lambs, Birds, Capons, and ſuch like, to ſerve the appetites of the moſt ſtrange belly-gods, and Architects of gluttony: and therefore *Cincius* in his oration, wherein he perſwaded the Senators and people to the law *Fannia*, reproveth this immoderate riot in banquets, *In apponendo menſis porcum Trojanum*: and indeed it wanted not effect, for they forbad both *Porcum Trojanum*, and *Callum Aprugnum*.

There was another Raven-monſter-diſh (called *Pinax*) wherein were included many Beaſts, Fowles Egges, and other things which were diſtributed whole to the gueſts: and no marvell, for this Beaſt was as great as a Hog, and yet gilded over with ſilver. And *Hippolocus*, in his Epiſtle to *Lynceus*, ſpeaking of the banquet of *Caramis*, ſaith thus, *Allatus eſt nobis etiam porcus dimidia parte diligenter aſſus ſive toſtus, & dimidia altera parte tanquam ex aqua molliter elixus, mira etiam coqui induſtria ita paratus, ut qua parte jugulatus eſſet, & quomodo variis deliciis refertus ejus vener non appareat.* There was brought to us a Hog, whereof the one half was well roaſted, and the other half or ſide well ſod, and this was ſo induſtriouſly prepared by the Cook, that it did not appear where the Hog was ſlain or received his deadly wound, nor yet how his belly came to be ſtuffed with divers and ſundry excellent and delicate things. The *Romans* had a faſhion to divide and diſtribute a Hog, which appeareth in theſe Verſes of *Martial*;

Vobiſcus.

Iſte tibi faciet bona Saturnalia porcus,
Inter ſpumantes ilice paſtus apros.

And of the eating of a ſucking Pig, *Martial* alſo writeth in this manner;

Lacte mero paſtum pigræ mihi matris alumnum
Ponat, & Ætolo de ſue dives edat.

I might add many other things concerning the eating and dreſſing of Swines fleſh, both young and old, but I will paſſe it over, leaving that learning to every Cook, and Kitchin-boy.

Concerning Bacon, that which is cald by the *Latins*, *Perna*, I might add many things, neither improper, nor impertinent, and I cannot tell whether it ſhould be a fault to omit it in this place. The word *Perna* after *Varro*, ſeemeth to be derived from *Pede*, but in my opinion, it is more conſonant to reaſon, that it is derived from the *Greek* word *Pterna*, which is the ribs and hips of the Hog hanged up and ſalted, called by *Martial Petaſo*, and by *Plautus Ophthalmia*, *Horæum*, *Scombrum* and *Laridunn*:

Palladius.

Quanta pecus peſtis veniet, quanta labes larido.

The time of the making of Bacon, is in the Winter ſeaſon, and all the cold weather, and of this *Martial* writeth very much in one place;

Muſteus eſt, propera, charos ne differ amicos.
Nam mihi cum vetulo ſit petaſone nihil.
And again,
Et pulpam dubio de petaſone voras.
——Cretana mihi fiet, vel maſſa licebit
De menapis lauti, de petaſone vorant.

Strabo in his time commended the Bacon of the *Gaules*, or of *France*, affirming that it was not inferiour to the *Aſian* or *Lycian*, an old City of *Spain* (called *Pompelon*) neer *Aquitania*, was alſo famous for Bacon. They firſt of all killed their hogs, and then burned or ſcalded off all their hair, and after a little ſeaſon did ſlit them aſſunder in the middle, laying them upon ſalt in ſome tub or deep trough, and there covering them all over with ſalt, with the skin uppermoſt, and ſo heap flitch upon flitch, till all be ſalted, and then againe they often turned the ſame, that every part and ſide, might receive his ſeaſon, that is, after five daies; laying them undermoſt which were uppermoſt, and thoſe uppermoſt which were undermoſt. Then after twelve days ſalting, they took all out of the tub or trough, rubbing off from it all the ſalt, and ſo hanged it up two days in the winde, and the third day they all to anoint it with oyl, and did hang it up two days more in the ſmoak; and afterward take it down again, and hang it or lay it up in the larder, where all the meat is preſerved, ſtill looking warily unto it, to preſerve it from Mice and Wormes: And thus much ſhall ſuffice at this time for the fleſh of Hogs, both Pork and Bacon.

The milk of a Sow is fat and thick, very apt to congeal, and needeth not any runnet to turn it; it breedeth little whay, and therefore it is not fit for the ſtomach, except to procure vomiting, and becauſe it hath been often proved, that they which drink or eat Sow milk fall into ſcurfs and Leproſies, (which diſeaſes the *Aſians* hate above all other) therefore the *Egyptians* added this to all the reſidue of their reaſons, to condemn a Sow for an unclean and filthy beaſt. And this was peculiarly the ſaying of *Manethon*.

The uſe of their skins.

With the skins of Swine which the *Grecians* did call *Phorine*, they made ſhoo-leather, but now a days by reaſon of the tenderneſs and looſeneſs thereof, they uſe it not, but leave it to the Sadlers, and to them that cover Books, for which cauſe it is much better then either Sheep or Goats skins, for it hath a deeper grain, and doth not ſo eaſily fall off. Out of the parings of their skins they make a kinde of glew, which is preferred before *Taurocollum*, and which for ſimilitude they call *Chœrocollum*. The fat of Swine is very pretious to liquor ſhooes and boots therewithal. The Amber that is in common uſe groweth rough, rude, impoliſhed, and without clearneſs, but after that it is ſod in the greaſe of a Sow that giveth ſuck, it getteth that nitour and ſhining beauty, which we finde to be in it.

Some mix the bloud of Hogs with thoſe medicines that they caſt into Waters to take fiſhes, and the *Hunters* in ſome Countries when they would take Wolves and Foxes, do make a train with a Hogs liver ſod, cut in pieces and anointed over with hony, and ſo anointing their ſhoos with Swines greaſe, draw after them a dead Cat, which will cauſe the beaſt to follow after very ſpeedily. The hairs of Swine are uſed by Cobblers and Shoomakers, and alſo with them every Boy knoweth how to make their Noſe bleed. The dung is very ſharp, and yet it is juſtly condemned by *Columella* for no uſe, no not to fatten the earth, and Vines alſo are burned therewithal, except they be diligently watered or reſt five years without ſtirring.

Theophraſtus.

In *Plinies* time they ſtudied to enlarge and make their Lettice grow broad, and not cloſe together, which they did by ſlitting a little the ſtalk, and thruſting gently into it ſome Hogs dung. But for trees there is more eſpecial uſe of it, for it is uſed to ripen fruit and make the trees more plentiful. The Pomegranats and Almonds are ſweetned hereby, and the Nuts eaſily cauſed to fall out of the ſhell Likewiſe, if Fennel be unſavory, by laying to the root thereof either Hogs dung, or Pigeons dung, it may be cured; and when any Apple tree is affected and razed with Worms, by taking of Swines dung, mixed and made ſoft like morter with the urine of a man layed unto the root, it is recovered, and the Wormes driven away: and if there be any rents or ſtripes viſible upon trees, ſo as they are endangered to be loſt thereby, they are cured by applying unto the ſtripes and wounds this dung of Swine.

When the Apple trees are looſe, pour upon their roots the ſtale of Swine, and it ſhall eſtabliſh and ſettle them, and whereſoever there are Swine kept, there it is not good to keep or lodge Horſes, for their ſmell, breath, and voice, is hateful to all magnanimous and perfect ſpirited Horſes. And thus much in this place concerning the uſe of the ſeveral parts of Swine, whereunto I may add our *Engliſh* experiments, that if Swine be ſuffered to come into Orchards, and dig up and about the roots of the Apple trees, keeping the ground bare under them, and open with their noſes, the benefit that will ariſe thereby to your increaſe of fruit will be very ineſtimable. And here to ſave my ſelf of a labor about our *Engliſh* Hogs, I will deſcribe their uſage out of Mr. *Tuſſers* husbandry, in his own words, as followeth: and firſt of all for their breeding in the Spring of the year he writeth in general;

Tuſſ.Husb.

Let Lent well kept offend not thee,
For March and April breeders be.

And of *September* he writeth thus:

To gather ſome maſt it ſhall ſtand thee upon,
With ſervant and children yet maſt be all gone.
Some left among buſhes ſhall pleaſure thy Swine,
For fear of a miſchief keep Acornes fro kine.
For rooting of paſture ring Hog ye have need,
Which being well ringled, the better doth feed.
Though young with their elders will lightly keep beſt,
Yet ſpare not to ringle both great and the reſt.

Yoke ſeldome thy ſwine, while ſhacke time doth laſt,
For divers miſfortunes that happen too faſt,
Or if you do fancy, whole eare of the Hog,
Give ear to ill neighbor, and ear to his Dog.
Keep hog I adviſe thee from medow and Corne,
For out alowd crying, that ere he was borne.
Such lawleſſe ſo haunting both often and long,
If dog ſet him chaunting he doth thee no wrong.

And again in *Octobers* husbandry he writeth;

Though plenty of Acornes, the Porkelings to fat
Not taken in ſeaſon may periſh by that,
If ratling or ſwelling get once in the throat,
Thou loſeſt thy porkling a Crown to a Groat.

What ever thing fat is, again if it fall,
Thou ventereſt the thing and the fatneſſe withall.
The fatter, the better, to ſell or to kill,
But not to continue, make proof if you will.

In *November* he writeth again;

Let Hog once fat, loſe none of that;
When maſt is gone, Hog falleth anon,
Still fat up ſome, till Shrovetide come,
Now Porke and ſouce bears tacke in a houſe.

Thus far of our *Engliſh* husbandry about Swine. Now followeth their diſeaſes in particular.

Of the diſeaſes of Swine.

Pliny.
Ælianus.

HEmlock is the bane of Panthers, Swine, Wolves, and all other beaſts that live upon devouring of fleſh, for the Hunters mix it with fleſh, and ſo ſpread or caſt the fleſh ſo poyſoned abroad in bits or morſels to be devoured by them. The root of the white Chamelion mixed with fryed Barly flour. Water and oyl is alſo poyſon to Swine. The black Ellebor worketh the ſame effect upon Horſes, Oxen, and Swine, and therefore when the beaſts do eat the white, they forbear the black with all weariſomeneſs. Likewiſe Henbane worketh many painful convulſions in their bellies; therefore when they perceive that they have eaten thereof, they run to the waters and gather Snails or Sea-crabs, by vertue whereof they eſcape death, and are again reſtored to their health. The hearb Gooſefoot is venemous to Swine, and alſo to Bees, and therefore they will never light upon it, or touch it. The black Night-ſhade is preſent deſtruction unto them, and they abſtain from Harts tongue, and the great bur, by ſome certain inſtinct of nature. If they be bitten by any Serpents, Sea-crabs, or Snails, are the moſt preſent remedy that nature hath taught them. The Swine of *Scythia* by the relation of *Pliny* and *Ariſtotle*, are not hurt with any poyſon except Scorpions, and therefore ſo ſoon as ever they are ſtung by a Scorpion, they die if they drink. And thus much for the poyſon of Swine. Againſt the cold (of which theſe beaſts are moſt impatient:) the beſt remedy is to make them warm ſties, for if it be once taken, it will cleave faſter to them, then any good thing, and the nature of this beaſt is, never to eat if once he feel himſelf ſick, and therefore the diligent Maſter or keeper of Swine, muſt vigilantly regard the beginnings of their diſeaſes, which cannot be more evidently demonſtrated, then by forbearing of their meat.

Of the Meaſels.

THe Meaſels are called in *Greek*, *Chalaza*; in *Latin*, *Grandines*; for that they are like hailſtones ſpred in the fleſh, and eſpecially in the leaner part of a Hog, and this diſeaſe, as *Ariſtotle* writeth, is proper to this Beaſt, for no other in the world is troubled therewith: for this cauſe the *Grecians* call a Meaſily Hog, *Chaluros*, and it maketh their fleſh very looſe and ſoft. The *Germans* call this diſeaſe *Finnen*, and *Pfinnen*; the *Italians*, *Gremme*; the *French*, *Surſume*, becauſe the ſpots appear at the root of the tongue like white ſeeds, and therefore it is uſuall in the buying of Hogs in all Nations to pull out their tongue and look for the Meaſels, for if there appear but one upon his tongue, it is certain that all the whole body is infected. And yet the Butchers do all affirm that the cleaneſt hog of all, hath three of theſe, but they never hurt the ſwine or his fleſh, and the Swine may be full of them, and yet none appear upon his tongue, but then his voice will be altered and not be was wont.

Theſe abound moſt of all in ſuch Hogs as have fleſhy legs and ſhoulders very moiſt, and if they be not over plentiful, they make the fleſh the ſweeter; but if they abound, it taſteth like ſtock-fiſh or meat over-watered. If there be no appearance of theſe upon their tongue, then the chap-man or buyer pulleth off a briſtle from the back, and if bloud follow, it is certain that the beaſt is infected, and alſo ſuch cannot well ſtand upon their hinder legs. Their tail is very round. For remedy hereof divers days before their killing, they put into their waſh or ſwill ſome aſhes, eſpecially of Haſel trees. But in *France* and *Germany* it is not lawful to ſell ſuch a Hog, and therefore the poor people do only eat them. Howbeit they cannot but engender evill humors and naughty bloud in the body.

The roots of the bramble called *Ramme*, beaten to powder and caſt into the holes, where Swine uſe to bath themſelves, do keep them clear from many of theſe diſeaſes, and for this cauſe alſo in antient time they gave them Horſe-fleſh ſodden, and Toads ſodden in water, to drink the broath of them. The Bur pulled out of the earth without Iron, is good alſo for them, if it be ſtamped and put into milk, and ſo given them in their waſh. They give their Hogs here in *England* red-lead, red-

Oker, and in ſome places, red loam or earth. And *Pliny* ſaith, that he or ſhe which gathereth the aforeſaid Burre, muſt ſay this charm :

Hæc eſt herba Argemon
Quam Minerva reperit,
Suibus his remedium
Qui de illa guſtaverint.

At this day there is great praiſe of Maiden-hair for the recovery of Swine, alſo holy Thiſtle, and the root of *Gunban* and Harts-tongue.

Of leanneſſe or pining.

SOmetime the whole herd of Swine falleth into leanneſſe, and ſo forſake their meat, yea although they be brought forth into the fields to feed, yet as if they were drunk or weary, they lie down and ſleep all the day long. For cure whereof, they muſt be cloſely ſhut up into a warm place, and made to faſt one whole day from meat and water, and then give them the roots of wilde Cucumber beaten to powder, and mixed with water, let them drink it, and afterward give them Beans pulſe, or any dry meat to eat, and laſtly warm water to procure vomit, as in men, whereby their ſtomacks are emptied of all things both good and bad : And this remedy is preſcribed againſt all incertain diſeaſes, the cauſe whereof cannot be diſcerned ; and ſome in ſuch caſes do cut off the tops of the tails, or their ears, for there is no other uſe of letting theſe beaſts bloud but in their veins.

Of the Peſtilence.

THeſe beaſts are alſo ſubject to the Peſtilence, by reaſon of earth-quakes and ſudden infections in the air, and in ſuch affection the beaſt hath ſometime certain bunches or ſwellings about the neck, then let them be ſeparated, and give them to drink in water the roots of Daffadill :

——Quatit ægros tuſſis anhela ſues
Ac faucibus angit obeſis tempore peſtis.

Some give them Night-ſhade of the wood, which hath great ſtalks like cherry twigs, the leaves to be eaten by them againſt all their hot diſeaſes, and alſo burned ſnails, or Pepper-wort of the Garden, or *Lactuca fœtida* cut in pieces, ſodden in water, and put into their meat.

Of the Ague.

IN ancient time (*Varro* ſaith) that when a man bought a Hog, he covenanted with the ſeller, that it was free from ſickneſſe, from danger, that he might buy it lawfully, that it had no manngie or Ague.

The ſigns of an Ague in this beaſt are theſe.

WHen they ſtop ſuddenly, ſtanding ſtill, and turning their heads about, fall down as it were by a Megrim, then you muſt diligently mark their heads which way they turn them, that you may let them bloud on the contrary ear, and likewiſe under their tail, ſome two fingers from their buttocks, where you ſhall finde a large vein fitted for that purpoſe, which firſt of all we muſt beat with a rod or piece of wood, that by the often ſtriking it may be made to ſwell, and afterwards open the ſaid vein with a knife : the blood being taken away, their tail muſt be bound up with Oſier or Elm twigs, and then the Swine muſt be kept in the houſe a day or two, being fed with Barly meal, and receiving warm water to drink as much as they will.

Of the Cramp.

WHen Swine fall from a great heat into a ſudden cold, which hapneth when in their travel they ſuddenly lie down through wearineſſe, they fall to have the Cramp, by a painfull convulſion of their members, and the beſt remedy thereof, is for to drive them up and down, till they wax warm again, and as hot as they were before, and then let them be kept warm ſtill, and cool at great leiſure, as a horſe doth by walking, otherwiſe they periſh unrecoverably, like Calves which never live after they once have the Cramp.

Of Lice.

They are many times ſo infeſted and annoyed with Lice, that their ſkin is eaten and gnawn through thereby; for remedy whereof, ſome annoynt them with a confection made of Cream, Butter, and a great deal of Salt: Others again anoynt them, after they have waſhed them all over with the Lees of wine, and in *England* commonly the Countrey people uſe Staveſaker, red Oaker, and greaſe.

Of the Lethargy.

By reaſon that they are much given to ſleep in the Summer time, they fall into Lethargies, and die of the ſame: the remedy whereof is, to keep them from ſleep, and to wake them whenſoever you finde them aſleep.

Of the head-aches.

This diſeaſe is called by the *Grecians*, *Scotomia*, and *Kraura*, and by *Albertus*, *Fraretis*. Herewith all Swine are many times infected, and their ears fall down, their eyes are alſo dejected, by reaſon of many cold humours gathered together in their heads, whereof they die in multitudes, as they do of the peſtilence, and this ſickneſſe is fatall unto them, if they be not holpen within three or four dayes. The remedy whereof (if there be any at all) is to hold Wine to their noſtrils, firſt making them to ſmell thereof, and then rubbing it hard with it, and ſome give them alſo the roots of white Thiſtles, cut ſmall and beaten into their meat, but if it fall out that in this pain they loſe one of their eyes, it is a ſign that the beaſt will die by and by after, as *Pliny* and *Ariſtotle* write.

Of the Gargariſme.

This diſeaſe is called by the *Latines*, *Raucedo*, and by the *Grecians*, *Branchos*, which is a ſwelling about their chaps, joyned with Feaver and Head-ache, ſpreading it ſelf all over the throat, like as the Squinancy doth in a man, and many times it begetteth that alſo in the Swine, which may be known by the often moving of their feet, and then they die within three dayes, for the beaſt cannot eat being ſo affected, and the diſeaſe creepeth by little and little to the Liver, which when it hath touched it, the beaſt dieth, becauſe it putrifieth as it paſſeth. For remedy hereof, give unto the beaſt thoſe things which a man receiveth againſt the Squinancy, and alſo let him blood in the root of his tongue, (I mean in the vein under the tongue) bathing his throat with a great deal of hot water mixed with Brimſtone and Salt.

This diſeaſe in Hogs is not known from that which is called *Struma*, or the Kings evil at the firſt appearance, as *Ariſtotle* and *Pliny* write: the beginning of this diſeaſe is in the Almonds, or kernels of the throat, and it is cauſed through the corruption of water which they drink; for the cure whereof, they let them bloud, as in the former diſeaſe, and they give them the Yarrow with the broadeſt leaves. There is a Hearb called *Herba impia*, all hoary, and outwardly it looketh like Roſemary, ſome ſay it is ſo called becauſe no beaſt will touch it, this being beaten in pieces betwixt two tiles or ſtones, groweth marvellous hot, the juice thereof being mixed in milk and Wine, and ſo given unto the Swine to drink, cureth them of this diſeaſe, and if they drink it before they be affected therewith, they never fall into it, and the like is attributed to the hearb *Trinity*, and *Viola Martia*, likewiſe the blew flowers of Violets are commended for this purpoſe by *Dioſcorides*.

Of the Kernels.

These are little bunches riſing in the throat, which are to be cured by letting blood in the ſhoulder, and unto this diſeaſe belongeth that which the *Germans* call *Rangen*, and the *Italians*, *Sidor*, which is not contagious, but very dangerous, for within two dayes the beaſt doth die thereof, if it be not prevented: This evil groweth in the lower part or chap of the Swines mouth, where it doth not ſwell, but waxing white, hardeneth like a piece of horn, through pain whereof the beaſt cannot eat, for it is in the ſpace betwixt the fore and the hinder teeth; the remedy is to open the Swines mouth as wide as one can, by thruſting into it a round bat, then thruſt a ſharp needle through the ſame ſore, and lifting it up from the gum, they cut it off with a ſharp knife; and this remedy helpeth many if it be taken in time: Some give unto them the roots of a kinde of Gentian to drink, as a ſpeciall medicine, which the *Germans* for that cauſe call *Rangen crute*; but the moſt ſure way is the cutting it off: and like unto this there is ſuch another growing in the upper chap of the mouth, and to be cured by the ſame remedy: the cauſe of both doth ariſe from eating of their meat over hot, and therefore the good Swineheard muſt labour to avoid that miſchief: The miſchief of this is deſcribed by *Virgil*:

Hinc canibus blandis rabies venit, & quatit ægros
Tuſſis anhela ſues, ac faucibus angit abeſis.

Of

Of the pain in their Lungs.

FOr all manner of pain in their Lungs, which come by the moſt part for want of drink, are to have Lung-wort ſtamped and given them to drink in water, or elſe to have it tyed under their tongues two or three dayes together, or that which is moſt probable, becauſe it is dangerous to take it inwardly, to make a hole in the ear, and to thruſt it into the ſame, tying it faſt for falling out: and the ſame vertue hath the white Hellebor. But the diſeaſes of the Lungs are not very dangerous, and therefore the Butchers ſay, that you ſhall ſeldom finde a Swine with ſound Lungs or Livers: ſometimes it falleth out that in the Lights of this Beaſt there will be apparent certain white ſpots as big as half a Walnut, but without danger to the Beaſt, ſometimes the Lights cleave to the ribs and ſides of the Beaſt, for remedy whereof you muſt give them the ſame medicines, that you give unto Oxen in the ſame diſeaſe. Sometimes there appear certain blathers in the Liver of water, which are called water-gals; ſometimes this is troubled with vomiting, and then it is good to give them in the morning, fryed peaſe mingled with duſt of Ivory, and bruiſed Salt faſting, before they go to their paſtures.

Of the diſeaſes in the Spleen.

BY reaſon that this is a devouring Beaſt, and through want of water, it is many times ſick of the Spleen, for the cure whereof you muſt give them Prunes of *Tamariske* preſſed into water, to be drunk by them when they are a thirſt; this diſeaſe cometh for the moſt part in the Summer, when they eat of ſweet and green fruits, according to this verſe;

Strata jacent paſſim ſua quaq; ſub arbore poma.

The vertue of theſe Prunes of *Tamarisk* is alſo very profitable againſt the diſeaſes of the Milt, and therefore it is to be given to Men as well as to Beaſts, for if they do but drink out of pots and cups made out of the wood of the tree *Tamariske*, they are eaſily cleared from all diſeaſes of the Spleen; and therefore in ſome Countries of this great tree they make Hog troughes and mangers, for the ſafegard of their Beaſts, and where they grow not great, they make pots and cups. And if a Hog do eat of this *Tamarisk* but nine dayes together, at his death he ſhall be found to be without a Spleen, (as *Marcellus* writeth.) When they become looſe in their bellies, which happeneth to them in the Spring time by eating of green Herbs, they either fall to be lean, or elſe to die. When they cannot eaſily make water, by reaſon of ſome ſtoppage, or ſharpneſs of Urine, they may be eaſed by giving unto them ſpurge-ſeed. And thus much for the diſeaſes of Swine. For concluſion whereof I will add hereunto the length of a Swines life, according to *Ariſtotle* and *Pliny*, if it be not cut off by ſickneſs or violent death; for in their dayes they obſerved that Swine did live ordinarily to fifteen years, and ſome of them to twenty; And thus much for the nature of Swine in general.

The medicines of the Hog.

The beſt remedy for the bitings of venomous Serpents is certainly believed to be this, to take *Aetius.* ſome little creatures, as Pigs, Cocks, Kids, or Lambs. and tear them in pieces, applying them whiles they are hot to the wound as ſoon as it is made, for they will not only expell away the poyſon, but alſo make the wound both whole and ſound. For the curing of Horſes which are troubled with the inflammation of the Lungs; Take a ſucking Pig and kill him neer unto the ſick Horſe, that you may inſtantly pour the bloud thereof into his jawes, and it will prove a very quick and ſpeedy remedy. The panch of a ſucking Pig being taken out and mingled with the yolk which ſticketh to the inner *Marcellus.* parts of the skin, and moiſtned both together, doth very much eaſe the pain of the teeth being poured into that ear, on which ſide the grief ſhall lie.

The liquor of Swines fleſh being boyled, doth very much help againſt the *Bupreſtis.* The ſame is alſo a very good antidote againſt poyſon, and very much helpeth thoſe which are troubled with the Gowt. Cheeſe made of Cowes milk being very old, ſo that it can ſcarce be eaten for tartneſs, being in the liquor or decoction of Swines fleſh which is old and ſalt, and afterwards throughly tempered, doth very much mollifie the ſtifneſs of the joynts, being well applyed thereunto.

The *Indians* uſe to waſh the wounds of the Elephants which they have taken firſt with hot water, *Ælianus.* afterwards if they ſee them to be ſomewhat deep, they anointed them with Butter: then do they aſſwage the inflamation thereof, by rubbing of Swines fleſh upon them, being hot and moiſt with the freſh bloud iſſuing from the ſame. For the healing of the wounds of Elephants, Butter is chiefly commended, for it doth eaſily expell the iron lyrage hid therein, but for the curing of the Ulcers, there is nothing comparable to the fleſh of Swine. The bloud of Swine is moiſt, and not very hot, being in temper moſt like unto mans bloud, therefore whoſoever ſaith that the bloud of men is profitable for any diſeaſe, he may firſt approve the ſame in Swines bloud: but if it ſhew not the ſame, it may in a manner ſhew the like action.

Galen. For although it be ſomewhat inferiour unto mans bloud, yet at the leaſt it is like unto it; by knowledge whereof, we hope we ſhall bring by the uſe thereof, more full and ample profit unto men. For although it do not fully anſwer to our expectation, notwithſtanding there is no ſuch great need that we ſhould prove mens bloud. For the encouraging of a feeble and diminiſhed Horſe, *Eumelius* reporteth, the fleſh of Swine being hot, mingled in wine, and given in drink, to be exceeding good and profitable. There alſo ariſeth by Swine another excellent medicine againſt divers perillous diſeaſes, which is this, to kill a young gelded Boar Pig, having red hairs, and being of a very good ſtrength, receiving the freſh bloud in a pot, and to ſtir it up and down a great while together with a ſtick made of red Juniper, caſting out the clots of the bloud, being gathered while it is ſtirring.

Then to caſt the ſcrapings of the ſame Juniper, and ſtir the berries of the Juniper in the ſame to the quantity of ſeven and twenty, but in the ſtirring of the ſame, let the clots be ſtill caſt out. Afterwards mingle with the ſame theſe hearbs following, Agrimony, Rue, Phu, Scabious, Betony, Pimpernel, Succory, Parſly, of each a handfull. But if the meaſure of the bloud exceed three pints, put unto it two ounces of Treacle: but if it ſhall be bigger, for the quantity of the bloud you ſhall diminiſh the meaſure of the Treacle. (But all things ought to be ſo prepared that they may be put to the bloud coming hot from the Boar.) Theſe being mixed all together, you muſt draw forth a dropping liquor, which you muſt dry in the ſun, being diligently kept in a glaſſe-veſſell for eight dayes together, which you muſt do once every year, for it will laſt twenty years. This medicine is manifeſtly known to be a great preſervative againſt theſe diſeaſes following, namely the Plague, impoſtumes in the head, ſides, or ribs, as alſo all diſeaſes whatſoever in the Lungs, the inflammation of the Milt, corrupt or putrified bloud, the Ague, ſwellings in the body, ſhaking of the heart, the Dropſie, heat in the body above nature, evill humors, but the principalleſt and chiefeſt vertue thereof is in curing all poyſons, and ſuch as are troubled with a noyſome or peſtilent Fever.

Let him therefore who is troubled with any of the aforeſaid diſeaſes, drink every morning a ſpoonful, or four or five drops of the ſame liquor, and ſweat upon the ſame, and it will in very ſhort time perfectly cure him of his pain. Some alſo do uſe Almonds pounded or beaten in the bloud againſt the Plague, the liquor being extracted forth by the force of fire. A young Pig being killed with a knife, having his bloud put upon that part of the body of any one which is troubled with warts being as yet hot come from him, will preſently dry them, and being after
Marcellus. waſhed, will quite expell them away. The bloud of a Sow which hath once pigged being anointed upon women, cureth many diſeaſes in them.

Pliny. The brains of a Boar or Sow being anointed upon the ſores or Carbuncles of the privy members, doth very effectually cure them, the ſame effect alſo hath the bloud of a Hog. The dugs of a woman anointed round about with the bloud of a Sow, will decreaſe leſſe and leſſe. A young Pig being cut in pieces, and the bloud thereof anointed upon a Womans dugs, will make them that they ſhall not encreaſe.

Concerning the greaſe of Swine, it is termed diverſly of all the Authors, for the *Grecians* call it *Stear Choirion*, and *Oxungion*, for the imitation of the *Latin* word *Axungia*; but *Marcellus* alſo applyeth *Axungia* to the fat of other creatures, which among the ancient Authors I do not finde: for in our time thoſe which in *Latin*, do call that fat *Axungia*, which encreaſeth more ſolid between the skin and the fleſh, in a Hog, a Man, a Brock or Badger, a Dor-mouſe, a Mountain-mouſe, and ſuch like.

The fat of Swine they commonly call Lard which groweth betwixt the skin and the fleſh, in expreſſing the vertues of this, we will firſt of all ſhew how it is to be applyed to cures outwardly, and then how it is to be received inwardly; next unto Butter, it hath the chiefeſt commendations among the antients, and therefore they invented to keep it long, which they did by caſting ſome ſalt among it, neither is the reaſon of the force of it obſcure or uncertain, for as it feedeth upon many wholeſome herbs which are medicinable, ſo doth it yeeld from them many vertuous operations; and beſides the phyſick of it, it was a cuſtom for new marryed wives when they firſt of all entred into their husbands houſe, to anoint the poſts thereof with Swines greaſe in token of their fruitfulneſs while they were alive, and remainder of their good works when they ſhould be dead.

The Apothecaries for preparation of certain Oyntments, do geld a male ſucking Pig, eſpecially ſuch a one as is red, and take from his reins or belly certain fat, which the *Germans* call *Schmer*, and the *French*, *Oing*, that is, *Unguentum*: the husbandmen uſe Swines greaſe to anoint the axle trees of their Carts and carriages, and for want thereof they take putrified Butter, and in ſome Countries the gum that runneth out of Pine trees, and Fir trees, with the ſcum of Butter mingled together: and this compoſition taketh away ſcabs and tetters in Men: but it is to be remembred that this greaſe muſt be freſh, and not ſalted, for of ſalt greaſe there is no uſe, but to skowre thoſe things that are exulcerated.

The antients deemed that this is the beſt Greaſe which was taken from the reins of the Hog waſhed in rain water, the veins being pulled out of it, and afterwards boyled in a new earthen pot, and ſo preſerved. The fat of Swine is not ſo hot and dry as the fat of other beaſts, the chief uſe of it is to moiſten, to faſten, to purge, and to ſcatter, and herein it is moſt excellent when it hath been waſhed in Wine, for the ſtale ſalt greaſe ſo mixed with Wine, is profitable to anoint thoſe that have the Pluriſie, and mingled with aſhes and Pitch, eaſeth inflammations, fiſtulaes, and tumors, and the ſame virtue is aſcribed to the fat of Foxes, except that their fat is hotter then the Swines, and leſſe moiſt: likewiſe aſhes of Vines mingled with ſtale greaſe of Hogs, cureth the wounds of Scorpions and Dogs, and with the ſpume of Nitre, it hath the ſame vertue againſt the bitings of Dogs. It is uſed alſo againſt the *French* diſeaſe (called the *French pox*) for they ſay if the knees of a Man be anointed therewith, and he ſtand gaping over it, it will draw a filthy matter out of his ſtomach, and make him vomit.

By *Serenus* it is preſcribed, to be anointed upon the knees, againſt the ſtifneſs of the Neck. Mingled with Quickſilver and Brimſtone, it is ſoverain againſt the itch and ſcabs. This Lard being ſod with the fat, and applyed to the body, doth mightily expell corruptions that cleave to the skin. The fat of Swine with Butter and Oyl of Roſes, is inſtilled into the broken skins of the brain for the cure of them.

Likewiſe Bugloſſe plucked up by the root, and the roots cut off, and curiouſly waſhed, beaten and pounded into a Ball, and mixed with Swines greaſe, is good to be laid to any incurable wound. It is alſo profitable for the wounded Nerves of the body, beaten together with Wormes of the earth, according to theſe Verſes of *Serenus*:

———Terræ lumbricos indere tritos.
Quem vetus & ranis ſociari axungia debet.

When bones are broken, if they be anointed with the ſod greaſe of Swine, and ſo bound up faſt together, after they be well ſet and cloſed, grow wonderful faſt, ſure and ſolid again: *Serenus* writeth thus of it;

Si cui forte lapis teneros violaverit artus,
Necte adipes vetulos, & tritum chamæciſſon.

By the fat (he meaneth the fat of Swine) becauſe preſently after he maketh mention of the dung of Swine to be good for the ſame cure. Being mingled with Pitch, it ſcattereth all bunches and fellons. The hardneſs of the breſts, Ruptures, Convulſions and Cramps, and with white Hellibor, it cloſeth up clifts and chinks in the fleſh, and maketh the hard skin to be ſoft again. It is very profitable againſt inflamations of Ulcers, eſpecially the fat of the Boar Pig, mixed with liquid gum.

Women do alſo uſe the fat of a Sow that never bore Pig to cleare their skin, and to mix it with Pitch, and one third part of Aſſes greaſe againſt the ſcabs. The ſame mixed with white Lead, and the ſpume of ſilver maketh the ſcars of the body to be of the ſame colour with the reſidue; and with Sulphur, it taketh away the ſpots in the Nails, mingled with the powder of Acorns: if the greaſe be ſalt, it ſoftneth the hardneſs of the fleſh. Rue mixed with Swines ſewet or Buls greaſe, taketh away ſpots and freckles out of the face, and it is alſo profitable againſt the Kings evill, being mixed with the powder of a Sea Oyſter ſhell, and being anointed in a Bath, it taketh away the itch and bliſters. Featherfew and ſtale Swines greaſe, is alſo preſcribed againſt the Kings evill. This ſame alone or with Snow, eaſeth the pain of burnings in the fleſh, and when there is an Ulcer, by reaſon of the burning, mix it with toaſted Barly, and the white of an Egge, according to theſe Verſes;

————————Combuſtis igni,
Hordea vel fruges, atq; ovi candida junges,
Adſit adeps porcæ (mira eſt nam forma medelæ)
Junge chelidonias, ac ſic line vulnera ſuccis,
Quodq; recens uſſit glacies, axungia ſimplex
Mulcet, & ex facili grata eſt medicamine cura.

Freſh greaſe is very profitable for thoſe members that are ſurboted or riven of their skin, and likewiſe to anoint them that are weary with long journies. The aſhes of womens hair burned in a ſhell, and mingled with the fat of Swine, are ſaid to eaſe the pain of St. *Antonies* fire, and to ſtanch bloud, and to cure Ring-worms.

The gall of a Swine, or of a Boar, and the Lights with the fat, filleth up the Kibes; and the ſtalks of Cabiges with the roots burned, and mingled with Swines greaſe being applyed to the ſides, do cure the dayly pains thereof. And thus far of the uſe of this greaſe for the bodies of men.

Now alſo it followeth in a word to touch the uſe thereof for the bodies of Beaſts. When the horns of Oxen or Kine are broken, they take a little Lint, Salt, Vinegar, and Oyl, and lay them upon the broken horn, powring in the liquid, and binding the reſt cloſe on the outſide, and this they renew three dayes together; the fourth day they take the like quantity of Swines greaſe, and liquid Pitch, and with a ſmooth rind or bark of pine they bind it to cloſe, and ſo it is faſtened again. When the hoof or anckles of an Ox are hurt with the plough ſhare, then take hard Pitch, Swines greaſe and Sulphur, roul them up all together in unwaſhed wool, and with hot burning Iron melt them upon the wound or horn.

The ears of Dogs in the Summer time are exulcerated by flies, into the which ſores it is good to inſtill liquid Pitch ſod with Swines greaſe, and this medicine alſo is good to deliver Beaſts from the tickes, for they fall off as many as touch it. When Lambs or Kids are troubled with the Sheep pox, ſome uſe to anoint them with Swines greaſe and the ruſt of Iron, that is two parts of Swines greaſe, and one part of ruſt, and ſo warm them together. Alſo for the ſcabs upon Horſes heels, that are called the ſcratches, which come for the moſt part in the Winter time, they cure them on this manner; They take the fat of Swine, and melt it on the fire, and pour it into cold water, which afterwards they take it out and beat it well together, at laſt they mingle it with Brimſtone beaten ſmall, and ſo anoint the place therewith three days together, and the third day they open the ſcabs, and ſo continue anointing till it be cured.

When a Horſe cannot hold his Neck right, it is good to anoint him with Oyl, Wine, Hony, and Hogs-greaſe; the manner of ſome Leeches is, when they have made a ſuppuration by Oxen in burning, they firſt of all waſh it with ſtale Urine, and afterwards mingle an equal quantity of Pitch and Hogs greaſe together, wherewithal they anoint and cure the ſore.

Sometime the bloud of Oxen falleth down into their feet, wherein it congealeth and breaketh forth into ſcabs, then muſt the place firſt of all be ſcraped with a knife, and the ſcabs cut away, afterwards with cloaths wet in Vinegar, Salt, and Oyl, moiſtened and preſſed hard, and laſt of all by an equall quantity of Hogs greaſe, and Goats ſewet ſod both together, it will be cured by laying it unto it. And thus much for the remedies of Swines greaſe towards Beaſts. The huskes of Beans being beaten ſmall to powder, and mixed with Swines greaſe, is very profitable againſt the pain of the hips and the nerves.

Some Phyſitians take the greaſe of Swine, the fat of Geeſe, the ſewet of Buls, and the *Oeſypus* or ſweat of Sheep, and anoint therewithal Gowty legs, but if the pain remove not, then do they add unto it Wax, Mirtle, Gum and Pitch, and ſome uſe it mixed with old Oyl, with the ſtone *Sacophagys*, Cinck-foyl beaten in Wine with Lime or aſhes. This Swines greaſe beaten in water with Cumin, is preſcribed by *Simeon Lethi* againſt the Gowt. It remedieth the falling of the hair, and the pain in the heads of Women, mingled with one fourth part of gals, and the like virtue it hath with wilde Roſes, *Lingulaca* and ***Hippocampinus*** with Nitre and Vinegar. When the corners of ones eyes are troubled with Worms, by anointing them with the fat of a Sow with Pig, beating them together both within and without, you ſhall draw all the Wormes out of his eyes.

When one hath pain in his ears whereby matter iſſueth forth, let him beat the oldeſt Lard he can in a Morter, and rake the juyce thereof in fine wool, then let him put that wool into his ear, making it to work through warm water, and then infuſe a little more of the juyce of that Lard, and ſo ſhall he work a great cure in ſhort time. And generally the fat of Geeſe, Hens, Swine, and Foxes, are prepared for all the pains in the ears.

If there ariſe any bunch in the neck or throat, ſeethe Lard and Wine together, and ſo by gargariſing that Liquor, it ſhall be diſperſed, according to the Verſes of *Serenus*;

> ———————*In rigore*
> *Cervicis geminus mulcebitur unguine poples,*
> *Hinc longam pariter nervos medicina ſequetur.*

And it is no marvel that the vertue of this ſhould go from the knees to the Nerves, ſeeing that *Pliny* affirmeth, that from the anointing of the knees the ſavour goeth into the ſtomach: there is ſo great affinity or operation of Rue upon the ſtones, that in antient time they were wont to cure burſtneſs by anointing the Cods with wilde Rue and Swines greaſe.

Alſo this Greaſe with ruſt of Iron, is good againſt all the imperfections in the ſeat. Butter, Gooſe greaſe, and Hogs greaſe, are indifferently uſed for this infirmity. Alſo this is uſed to keep Women from abortments that are ſubject thereunto, being applyed like an eye ſalve. In the diſeaſes of the Matrix, eſpecially Ulcers, they firſt of all dip Spunges or Wool in warm water, and ſo cleanſe the places infected, and afterwards cure it with Rozen and Swines greaſe mingled together, and often uſing it in the day and night by way of Oyntment; but if the exulceration be vehement, after the waſhing they put Hony unto the former confection, and ſome make a perfume with Goats Horn, Gals, Swines greaſe, and Gum of Cedars. ***And. Fernerius*** ſaith, that Lard cut ſmall and beat in a Morter of ſtone like paſte, in a Limbeck of Glaſſe, rendereth a white water, which maketh the hair yellow, and alſo the face comely. If a man be poyſoned with Hemlock, he cannot avoid it better, then by drinking Salt, Wine, and freſh Greaſe. A decoction hereof is good againſt the poyſon of ***Boupreſtis***, and againſt Quickſilver. The ſewet of a Sow fed with green Herbs, is profitable to them that are ſick of a conſumption of the Lungs, according to this Verſe of *Serenus*;

> *Proderit & veteris ſevi pila ſumpta ſuilli.*

This may alſo be given them in Wine, either raw or decocted, or elſe in pils to be ſwallowed down whole if it be not ſalted, and the fift day after they preſcribe them to drink out of an Egge-ſhell Liquid Pitch, binding their ſides, breaſt, and ſhoulder bones very hard. It is alſo uſed for an old Cough after it is decocted, the weight of a Groat being put into three cups of Wine with ſome Hony. It is given alſo to them that have the flux, eſpecially old Lard, Hony, and Wine, being beaten together till they be all as thick as hony, whereof the quantity of a Haſil-nut, is to be drunk out of Water. Alſo morſels of Swines greaſe, Butter, and Hony, being put down into a Horſe throat, cureth him of an old Cough; and finally a piece of this Greaſe being old, moiſtened in old Wine, is profitable to a Horſe that hath been overheated in his journey. When Calves be troubled with belly Wormes, take one part of Swines greaſe, and mingle it with three parts of Hyſop, afterwards thruſt it down into the throats of the Calves, and it ſhall expell the Wormes.

When the tongue and chaps wax black by a peculiar ſickneſs of the mouth, which the Phyſitians call *Morbus Epidemius*, it is moſt wholeſome to rub the tongue with the inner ſide of the rines of Bacon, and ſo draw out an extreme heat: and it is ſaid if a man be deeply infected, whoſe tongue is thus rubbed; the ſaid Bacon rine being eaten by any Dog, will procure his death. The fat of Wolves and the marrow of Swine is good to anoint blear-eyes withal. By ſwallowing down the marrow of Swine, the appetite to carnal copulation is encreaſed.

The aſhes or powder of Hogs briſtles which are taken out of Plaiſterers Pencils, wherewithal they rub wals, and mixed with Swines greaſe, doth eaſe the pain of burnings, and alſo ſtayeth the bleeding of wounds, and the falling down of the ſeat being firſt of all waſhed in Wine and dryed Pitch mingled therewithal. The powder of the cheek-bones of Swine, is a moſt preſent remedy for broken bones, and alſo for ulcers in the legs and ſhins. The fat of a Boar is commended againſt Serpents, and ſo alſo is the liver of a Bore Pig when the Fibres are taken from it, if the weight of two pence be drunk in wine.

The brain of a Sow toaſted at the fire, and laid to a Carbuncle, either diſperſeth or emptieth it. Likewiſe the bloud and brains of a Boar or a Sow, or Boar Pig being mixed with Hony, doth cure the Carbuncles in the yard, and the brains alone, openeth the gums of children, to let out their teeth, as *Serenus* writeth;

Aut teneris cerebrum gingivis illine porci.

There are naturally in the head of a Hog two little bones that have holes in them, one in the right part, and another in the left. Now if it happen that a man finde theſe bones by chance, either one or both of them, let him lay them up ſafe, and whenſoever he is troubled with the Head-ach, let him uſe them, hanging them about his neck by a ſilken threed, that is to ſay, if the head ach on the right ſide, let him hang the right bone; and if on the left, the left bone: Theſe things I report upon the credit of *Marcellus*. *Galen* alſo writeth, that if the pole of the Swines ear be hanged about ones neck, it will preſerve him from all Cough afterwards.

They were wont, as *Dioſcorides* writeth, to ſeethe a Gudgen in a Swines belly, by the eating whereof, they ſtayed the falling down of the ſeat. If a man eat the lungs of a Boar, and a ſow ſodden and faſting, they will preſerve him from drunkenneſs all that day; and likewiſe the ſaid lungs doth keep the ſoles of the feet from inflamation which are cauſed by ſtraight ſhooes. It alſo healeth the piles, clifts, and breaking of the skin, and kibes of the feet, by laying to it a Boars gall, and a Swines lungs.

If a Man drink the Liver of a Sow in Wine, it ſaveth his life from the bitings of venemous beaſts. Alſo the liver of a Boar burned with Juniper-wood, cureth all the faults in the ſecrets; and drunk in Wine without Salt after it is ſod, ſtayeth the looſeneſs of the belly. The gall of Swine is not very vehement, for as the whole body is wateriſh, ſo alſo is that; neither is there any beaſt herein comparable unto it, (except the wilde) and that is enemy to Ulcers, ripening the ſore, ſcattering the evill humors, and reſiſting the bitings of venemous Beaſts. Alſo the gall of Boars layed to bruiſed Articles, doth procure unto them wonderful eaſe. One ſhall take away an old ſcurſe very eaſily by the gall of a Sow, which farrow if it be mingled with the juyce of the hearb *Siclamine*, and therewithal to rub the head well in a Bath. To keep hair from growing upon the browes when it is once plucked off; Take the gall and fat of a Boar, and put them into a ſmooth thick earthen pot, and of the ſharpeſt Vinegar and oyl of Almonds four ounces a piece, pour that into it, and then binde the mouth of the pot cloſe with a thick linnen cloth, ſo letting them ſtand ſeven dayes together, afterwards open them again, and you ſhall finde upon the top a certain ſcum like gold, wherewithal anoint thoſe places, which you would have remain bald, after that you have beaten it together in a morter: likewiſe the gall of a Barrow Hog or Boar Pig, doth ſcatter Apoſtumes and bunches in any part of the body. The gall of a Hog dryed in an Oven, and laid upon a Carbuncle, as much as will cover it, it cleaveth faſt to the ſore, and draweth out the root and core thereof.

It is likewiſe good againſt the Ulcers of the ears, except the Ulcer be of long continuance, and then it is good to uſe a ſharper gall, ſuch as is a Sheeps, an Oxes, a Bears or a Goats, they mingle herewithal ſometimes oyl of Roſes; but for old wounds in the ears, it is good to take one part of beſt Hony, and two parts of the ſharpeſt Vinegar, and ſo let them boyl on the fire three walmes, afterwards ſet them far off from the fire, untill it leave ſeething or boyling, and then put Nitre unto it, ſo long till you know by the Vapor that the Nitre is ſetled, then ſeethe it again upon a gentle fire, ſo as it boyleth not over, and laſtly put into this the gall of a Boar, or of a Goat, and then ſeethe it the third time, taking it from the fire, when it is luke-warm, infuſe it into the ears, and this gal muſt not be the gall of a Sow, except of ſuch as never bare Pig. Alſo this gall being dried doth cure the Hæmorrhoids and kibes. There are alſo certain ſlifters or clifts in the hoofs of Horſes, which are cured in one nights ſpace, by applying unto them the gall of a Barrow hog, mingled with the yolkes of Egges.

The blather of Swine will provoke urine, and of a Boar Pig ſod, roaſted or boyled, and ſo eaten and drunk, cauſeth a man to contain his urine, which never could before. When the head of a Man is exulcerated and runneth, take the bladder of a Barrow-hog, with the Urine, and caſt the ſame into the fat cut ſmall, afterwards mingle it ſo with Salt, that it may appear all white, then binde it up faſt, and dig a hole in the Garden about a cubit deep, wherein bury and cover the ſaid gall, and ſo let it reſt forty or fifty days in the earth, till the matter therein contained be putrified, then take it out and melt it in a diſh, and keep the ointment that ariſeth of it. Then waſh the head all over with lye, unto the intent that it may not be offended through the Acrimony thereof, mingle it with new wine or with water, and then when it is dry after ſuch waſhing, anoint it with the ſaid ointment, and ſo will the noxious and unclean hairs fall every one off, and new pure ones ariſe in their place, and you muſt be very carefull to keep the head from cold.

They were wont to give the ſtones of Swine againſt the Falling ſickneſs, but when they were firſt dryed, and afterwards beaten to powder, and given to the ſick party in Swines milk, ſo he was commanded to abſtain from wine many dayes before, and after he received it for many dayes together. In *Savoy* they take the ſtones out of a young Hog when they geld him, and ſcorch them at the fire ſo long, till they may be cruſhed to pieces, and this they preſcribe to be drunk in Wine againſt the Colick.

Some give the powder of Boars ſtones to men and women, to increaſe copulation and conception. The *Magicians* or wiſe men of the Eaſt preſcribed to be drunk for the incontinency of urine, the powder of a Boar Pigs ſtones out of ſweet wine, and then to make water in a Dogs kennel, which while he is doing, to ſpeak to himſelf theſe words; *Ne ipſe urinam faciam ut Canis in ſuo cubile*: but I will leave this ſuperſtition, as not worthy to be *Engliſhed*. Some take the bladder of a Sow burned to powder, and drunk for this infirmity, and ſome a certain liquoriſh poyſon, which droppeth from the Navel of a Boar Pig, immediately after it is farrowed.

Bacon beaten together, and made like meal, is good agaiſt a continual Cough, or ſtayeth bleeding at the mouth. Bacon broath is alſo mingled with other medicines againſt the Gowt, and they make an emplaiſter of Bacon to ſcatter gravelly matter in the bladder. The bones of Bacon about the hips are kept to clenſe and rub teeth, and by burning of them, not only the looſe teeth in men are faſtned, but alſo the wormes in the teeth of beaſts are killed. If a Horſe be troubled with the Glanders or any ſuch liquid matter running out at his mouth and noſe, then let the broath wherein Bacon and Swines feet hath been ſod, be mixed with hony, and ſo ſtrained afterward, let it be beaten well together with Egges, and ſo infuſed into the left Noſtril of the Horſe. *Gagnerius* preſcribeth an Emplaiſter to be made of Cheeſe, and the feet of Swine againſt the ſhrinking up of the ſinews.

The ancle bone of a Sow being burned untill it be white, and bruiſed and taken in drink, doth cure the ſwellings of the neck, and pains of long continuance. The ancle bone of a Sow burned and bruiſed, and given to drink only in Water, is a remedy againſt the Colick and ſtone. The ankle bone of a Sow doth drive away thoſe ſwellings which ariſe in the ſtomach, and doth eaſe the pains of the head.

The aſhes of the ancle bone of a Sow or Boar, doth cure Corns, clefts, or other rifts in the skin, and the hardneſs of the skin that is in the bottom of the feet. It is alſo ſhewed, that if the bone ſhall be hung about the neck of thoſe that are troubled with quartain agues, that then they ſhall be far better, but of what bone he ſpeaketh, it is uncertain, but as he remembreth it is the next bone before the fat of the anckle bone.

The bones that are taken from the hoofs of Sowes, burned and beaten to powder, are very good to rub and clenſe the teeth: Alſo the bones next to the ribs of Bacon, being burned, are very good to faſten the teeth. The bones that are taken from the hoofs of hogs, and burned to powder, are uſed to clenſe the teeth, and it is very good alſo to faſten the teeth. The aſhes which are made of a Harts horne, or of the hoof of a Hog, are very good to clenſe or rub the teeth. The bones which are taken from the hoof of a hog burned and beaten to powder and ſifted, and a little Spicknard added thereto, doth make the teeth very white, by often rubbing them therewith. The aſhes of the hoofs of a Boar or Sow, put in drink, doth ſtay the incontinency of Urine, and alſo the Bloudy flux. Take as much Mercurial ſodden, as ones hand can hold, ſod in two pintes of Water unto one pinte, and drink the ſame with Hony and Salt, and the powder of a Hogs hoof, and it ſhall looſe the belly.

The milk of a Sow drunk with ſweet Wine, helpeth women in travell; and the ſame being drunk alone reſtoreth milk in Womens breſts; it is alſo good againſt the Bloudy flux and Tiſſick. The ſtones of Swine beaten to powder, and drunk in Swines milk, are good againſt the Falling ſickneſs. The wiſe men were wont to preſcribe the left foot or leg of a Camælion to be bound unto the feet againſt the Gowt.

There are alſo many uſes of the dung of Swine, and firſt of all it being mixed with Vinegar, is good againſt the bitings of venemous beaſts, and *Aetius* maketh an Emplaiſter thereof, againſt the biting of a Crocodile. It is to be applyed ſingle againſt the ſtinging of Scorpions, and alſo the biting of any other reptile creature. If a Serpent bite an Oxe or a Horſe, or any other Four-footed Beaſt, take the ſtalk of *Nigella*, and beat it into a pinte of old wine, ſo as all the juyce may go out thereof, then infuſe it into the Noſtrils of the Beaſt, and lay Swines dung to the ſore, ſo alſo it may be applyed unto men, whereunto ſome do add Hony Attick, and the Urine of a man, and ſo it is to be applyed warm, it being alſo warmed in a ſhell, and dryed to powder, mixed with Oyl, and layed to the body, eaſeth outward pains. It it likewiſe profitable againſt burnings, itch, ſcabs, and bliſters, and trembling of the body, according to theſe Verſes of *Serenus*;

Stercoris ex porco cinerem confundito lymphis:
Sic pavidum corpus, dextra paſcente foveto.

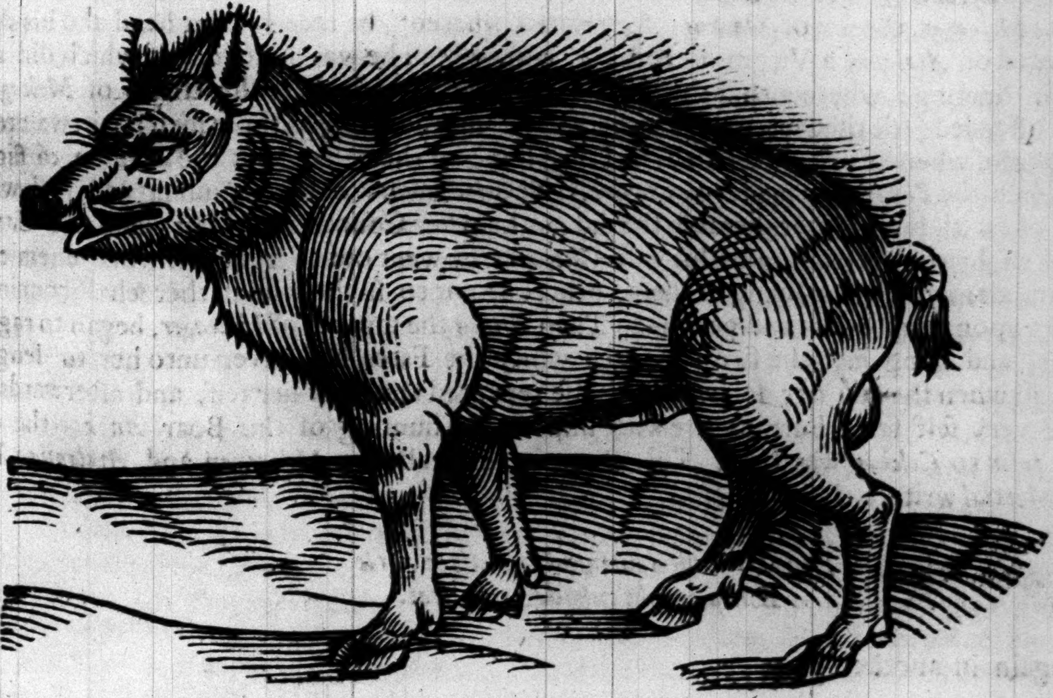
This is alſo commended againſt hard bunches in the body, hardneſs of the skin, clifts and chinks in the fleſh, freckles, lice, and nits, and alſo the breaking of the ſinews;

Si cui forte lapis teneros violaverit artus,
Non pudeat luteæ ſtercus producere porcæ.

It is alſo good to ſtay bleedings at the Noſe, if it be layed to the Noſtrils warm, and to ſtay the bleedings of Beaſts, if it be given them in Wine; the ſame being mixed and covered with Hony, is anointed upon Horſes for the Quinſie, or ſwellings of the throat. If the breaſts of a Woman do ſwell after her delivery of childe, it is good to anoint them with water, and the dung of Hogs, alſo the powder thereof mixed with Oyl, is profitable for the ſecrets of men and women. If a man have received any hurt by bruiſes, ſo as his bloud ſtayeth in his body, or ſuffer Convulſion of the Nerves through Cramps, thoſe evils are cured by the dung of a Boar gathered in the Spring time, dryed and ſod in Vinegar, and ſome of the later Phyſitians preſcribe it to be drunk in Water, and they ſay that *Nero* the Emperor was wont to uſe that medicine, when he would try the ſtrength of his body, *in* a running Chariot: alſo the powder of the ſame being drunk in Vinegar, is profitable *for the* Rupture and inward bruiſes, and warmed in Wine againſt all manner of fluxes and Tiſicks. For the pains of the Loins and all other things which need mollifying, rub them firſt of all with Deers greaſe, and then ſprinkle them with old Wine mixed with the powder of Swines dung.

The Urine of a Swine is alſo good againſt all bunches and Apoſtemations being layed to in wool. The urine of a Boar Pig dryed in the ſmoak, and drunk with ſweet Wine, the quantity of a Bean, is profitable againſt the Falling evill; againſt the whiteneſs of the eyes, and the ſtone in the reins and bladder. And thus much of the Swine in general.

Of the *Wilde* BOAR.



THis Beaſt is termed by no other name then the common Swine among the *Hebrews*, namely, *Chaſir*, as you may ſee in Pſal. 80. where the Prophet ſpeaketh of *Chaſir de ſylva*; that is, the Boar out of the wood. The *Grecians* call him *Capros* and *Syagros*, and *Clunis*, although ſome take *Clunis* for a Boar of an exceeding great ſtature. *Ariſtophone* ſaith, that there are ſome of this kinde which are called *Monii*, which word by St. *Cyril* upon the Prophet *Hoſea* is interpreted a wilde Aſſe, but I rather incline to their opinion which ſay, that *Chlunis*, *Monios*, and *Chauliodon* are Poetical words for cruell Boars. *Ariſtotle* is of opinion, theſe Boars being gelt when they are young, grow greater and more fierce, whereunto *Homer* alſo yeeldeth as he is thus tranſlated:

Nutriit exetum ſylvis horrentibus aprum
Inſtar non bruti, ſed dorſi montis opaci.

But this is to be underſtood of ſuch Boars, as by accident geld themſelves by rubbing upon any tree. The *French* call this Beaſt, *Sanglier* and *Porc Sanglier*; the *Italiane*, *Cinghiale* and *Cinghiare*, and *Porco*. The *Spaniards*, *Puerco Sylveſtre*, and *Pueoco montes*, and *Javali*; the *Germans*, *Wild Schwein*; the *Illyrians* *Weprz*; and the *Latins*, *Aper*; for *Porcus* ſignifieth the tame Swine, and *Aper* the wilde. The reaſon of this *Latin* name *Aper*, is derived from *Aſper*, becauſe he liveth among the ſharp thorns and woods; but I rather think, that *Aper* is derived from *Capros* the *Greek* word, or elſe *Aper a feritate*, from fierceneſs and wildeneſs, by changing one letter into another.

The Epithets. The Epithets of this Beaſt are many, both in *Greek* and *Latin*, ſuch as theſe are; ſharp, wilde, *Arcadian*, *Atalantean*, troubler, bloudy, toothered, hard, *Erymanthean*, cruell, outragious, fierce, ſtrong, gnaſhing, lightning, yellow, raging, Acorn-gatherer, quick, rough, rough-haired, horrible, *Mænalian*, *Myſian*, *Meleagrean*, threatning, woodwanderer, cruel, *Sabelican*, briſtle-bearer, foaming, ſtrict, filthy, *Tegean*, *Thuſcan*, fearful, wry-faced, truculent, devourer, violent, *Umbrian*, wound-maker, impetuous, mountain-liver, armed on both ſides, and ſuch like.

But of theſe Epithets there are only three, *Erymanthean*, *Calydonian*, and *Myſian*, which do offer unto us peculiar ſtories, according as we finde them in the Poets, which we will prefix by way of moral diſcourſe before we enter into the natural ſtory of this beaſt. Firſt of all, *Erymanthus* was a hill of *Arcadia*, wherein was a wilde Boar, that continually did deſcend down and depopulate their Corn-fields; *Hercules* coming that way, and hearing of that miſchief, did kill the ſaid Boar, and carryed him upon his back to *Euryſtheus*, whereat *Euryſtheus* was ſo much afraid, that he went and hid himſelf in a brazen veſſell, whereof *Virgil* ſpeaketh thus:

Placarit ſylvam, & Lernam tremefecerit arcu.

And of this *Erymanthean* Boar *Martial* ſpeaketh;

Quantus erat Calydon, aut Erymanthe tuus.

Of the *Calydonian* Boar there is this ſtory in *Homer*; When *Oeneus* the Prince of *Ætolia* ſacrificed the firſt fruits of his Countrey to the Gods, he forgot *Diana*, wherewithal ſhe was very angry, and ſent among the people a ſavage Boar, which deſtroyed both the Countrey and Inhabitants: againſt whom the *Calydonians* and *Pleuronians* went forth in hunting, and firſt of all that wounded the wilde Beaſt was *Meleager*, the ſon of *Oeneus*; for reward whereof, he received his head and his skin, which he beſtowed on *Atalanta* a Virgin of *Arcadia*, with whom he was in love, and which did accompany him in hunting: wherewithal the ſons of *Theſtius*, which were the Uncles of *Meleager*, were greatly offended (for they were the brothers to his mother *Althea*) thoſe men lay in wait to deſtroy him, whereof when he was advertiſed, he killed ſome of them, and put the reſidue to flight. For which cauſe the *Pleuronians* made war againſt the *Calydonians*: in the beginning of which war *Meleager* fell out with his Mother, becauſe ſhe did not help her Countrey. At laſt when the City was almoſt taken, by the perſwaſion of his wife *Cleopatra*, he went out to fight with his enemies, where in valiant manner he ſlew many of them, others he put to flight, who in ther chaſe running away, fell down upon ſteep rocks and periſhed. Then *Althea* the mother of *Meleager*, began to rage againſt her ſon, and flung into the fire the torch which the Fates had given unto her to lengthen his dayes; ſo when ſhe ſaw her ſon was dead, ſhe repented and ſlew her ſelf, and afterwards was caſt into the very ſelf ſame burning fire with him. In the hunting of this Boar *Ancæus* the companion of *Jaſon* to *Colchis* was ſlain. This Boar is alſo called a *Meliagran* and *Atalantian* Boar, of whom *Martial* writeth thus;

Qui Diomedeis metuendus Setiger agris
Ætola cecidit cuſpide, talis erat.

And again in another place;

Lacte mero paſtum pigræ mihi mortis alumnum
Ponat, & Ætolo de ſue dives edat.

It is ſaid that this Boar had teeth of a cubit long, and the manner of his hunting was expreſſed in the pinnacle of the Temple of *Tegea*, for which cauſe he is called the *Tegean* Boar. Upon the one ſide of the Boar againſt his middle, were painted *Atalanta*, *Meleager*, *Theſeus*, *Telamon*, *Peleus*, *Pollux*, and *Iolaus* the companion of all *Hercules* travails. *Prothus* and *Cometes*, the ſons of *Thieſtius* and brethren of *Althea*, on the other ſide of the Boar ſtood *Ancæus* wounded, and *Epochus* ſuſtaining his hunting ſpear; next unto him ſtood *Caſtor* and *Amphiaraus*, the ſon of *Oicleus*. After them *Hippothus*, the ſon of *Cercion*, *Agamedes* the ſon of *Stymphelus*, and laſtly *Pyrithous*. The teeth of this Boar were taken taken away by *Auguſtus* after the time that he had overcome *Anthony*, which he hung up in the Temple of *Bacchus*, ſtanding in the Gardens of the Emperor. And thus much for the *Calidonian* Boar.

Now concerning the *Myſian* Boar, I finde this ſtory recorded of him; When *Adraſtus* the *Phrygian*, who was of the Kings bloud, had unawares killed his brother, he fled to *Sardis*, and after his expiation dwelt with *Creſus*. It happened at that time that there was a wilde Boar came out of *Olimpus*, and waſted a great part of the Countrey of *Myſia*: the people oppreſſed with many loſſes, and terrifyed with the preſence of ſuch a Beaſt, beſought the King to ſend his own Son *Attys* with much company to hunt and kill the Boar. The King was affraid thereof, becauſe in his dream he ſaw a viſion, his Son periſhing by an iron ſpear; yet at laſt he was perſwaded, and committed the ſafegard of his body to *Adraſtus*. When they came to the wilde Beaſt, *Adraſtus* bent his ſpear at the Boar, and while he caſt it to kill him, the ſon of *Creſus* came betwixt them, and ſo was ſlain with the ſpear, according to the dream of his Father. *Adraſtus* ſeeing this misfortune (that his hands which ſhould have defended the young Prince, had taken away his life) fell into extreme paſſion and ſorrow for the ſame, and although the King knowing his innocency, forgave him the fact, yet he ſlew himſelf at the Funeral of *Attys*, and ſo was burned with him in the ſame fire. And thus much for the *Myſian* Boar.

Of the wilde Boars parts and other accidents.

Now we will proceed to the particular ſtory of the wilde Boar, and firſt of all of the Countries breeding Boars. The *Spaniards* ſay, that in the new found world, there are wilde Boares much leſſe then ours, which have tails ſo ſhort, that one would think they had been cut off, they differ alſo in their feet, for their hinder feet are not cloven, but ſtand upon one claw, and their forefeet are cloven like common Swines. Their fleſh alſo is more ſweet and wholeſome then common Swines fleſh, whereof *Peter Martyr* giveth reaſon in his *Ocean* Decads, becauſe they feed under Palm trees, neer the *Sea*-ſhore, and in Marſhes.

Olaus Magnus writeth, that in divers places of *Scandinavia*, they hunt wilde Boars which are twelve foot long. The wilde Boars of *India* according to *Pliny* have teeth, which in their compaſs contain a Cubit, and beſides their teeth growing out of their chaps, they have two horns on their head like Calves horns. In the Iſlands *Medera*, there are abundance of wilde Boars, likewiſe in *Helvetia*, and eſpecially in thoſe parts that joyn upon the *Alpes*, where they would much more abound, but that the Magiſtrates give liberty to every man to kill and deſtroy them. There are no Boars in *Africk*, except in *Ethiopia*, where their Boars have all horns, and of thoſe it was that *Lycotas* the Countryman ſaw in a publick ſpectacle at *Rome*;

> *Et niveos lepores, & non ſine cornibus apros.*

that is, Hares white like Swine, and Boars that have horns. It is a wonderful thing that there are no Boars in *Creet*, and no leſſe admirable that the Boars of *Macedonia* are dum and have no voice: and thus much concerning the Countries of Boars.

Now concerning their Colour, it is obſerved, that wilde Boars for the moſt part are of a black and brown colour, eſpecially at the top of their hair, and ſomewhat yellow underneath, and yet *Pauſanias* writeth, that he hath ſeen Boars all white; howbeit that is not ordinary. Their bloud is ſharp and black like black wine, and ſuch as will never be thick, their eyes like to the eyes of wrathful beaſts, as Wolves and Lyons. Their tuskes are moſt admirable, for with them while they are alive, they cut like ſharp knives, but when they are dead, they have loſt that cutting property, the reaſon of it is in the heat of the tooth, for it is certainly affirmed by Hunters of wilde Boars that when the Beaſt falleth firſt on the earth down before the Dogs and Hunters, if one pull off a briſtle from his back, and lay it upon the tusk, the heat thereof will make it ſhrink up and turn together like a hot Iron, and if Dogs do chance to touch them, they burn their hairs from their back, whereby the ardent and fiery nature of this beaſt is manifeſt, as an everlaſting monument of the work of God, and yet notwithſtanding all their wrath they have no gall, (as *Pliny* writeth) their head and face are their ſtrongeſt parts, and therefore upon them they receive the Hunters blowes as upon a bucker.

Oppianus.
Gillius.

The places of their abode.

Their tears which they ſend forth of their eyes are very ſweet, and of all other things they cannot abide their own urine, for it is thought to be ſo hot that it burneth them, and they can never run away in flight till they have emptyed their bellies thereof. The place of their abode is for the moſt part in the Marſhes and Woods: for the *Scythians* did hunt Harts and wilde Boars in the Marſhes, but Roes and wilde Aſſes in the plain fields. Sometimes they hide themſelves among Fern, which they have gathered together in the fields, and they dig holes and ditches for themſelves, wherein they reſt: And this is obſerved, that they love not ſo much to wallow in the mire, as the tame and domeſticall Swine, although they be of a hot and fiery nature. Their voice is like the voice of common Swine, but the females is ſomewhat more ſhrill. They live for the moſt part ſolitary and alone, and not in heards as the other do, and feed upon ſuch meats as the vulgar Swine. *Tragus* ſaith, that there is a kinde of green Corn in *Germany*, which is armed with very ſharp ſtalks and points at both ends like Barley, this the people do ſeethe and eat like peaſe.

Now foraſmuch as wilde Boars are deſtroyers of their Corn, they ſow that grain neer the woods ſides where the Boars abide, whereby they defend and ſafeguard their better Corn. Bores do alſo eat the worms of the earth, which they dig out with their noſes; and in *Pamphilia* and the mountains of *Cilicia*, they do eat Salamanders without hurt or danger to themſelves, and yet if men chance to eat of their fleſh which have ſo devoured them, they die afterwards through the poyſon: whereby it manifeſtly appeareth, that there is danger in eating wilde Hogs fleſh. Hemlock and Henbane is alſo poyſon to Swine, which they never eat but unawares, and having eaten it, preſently they loſe their ſtrength in their hinder parts, whereby they are fain to draw them after them, and in that manner they crawl to the water ſides, where they gather together Snails and Sea-crabs, by eating whereof they are reſtored to their former health. Ivy is alſo a medicine for the diſeaſes of Boars, and old age maketh them altogether unfit to be preſerved. Therefore in ancient time when they kept Boars in Parks, whereof *Fulvius Hirpinus* was the firſt beginner, *Lucius Lucillus* and *Quintus Hortenſius* the immediate followers, I ſay they never kept Boars paſt four year old, becauſe after that time they waxed lean and pined away.

The generation of wilde Swine.

Now concerning their generation or copulation to engender, it is certain that they do not couple often in the year, as the tame Swine, but only once, and that in the beginning of Winter, or the middle, ſo that they may bring forth in the Spring time of the year; and they chooſe the moſt unuſed, narrow, hollow, and ſteep places to couple in. The male abideth with the female thirty dayes together, and the female beareth her young ones, both for the number and the time anſwerable to the vulgar Swine. When the Boar is in copulation before-hand, while he worketh the Sow, he carrieth a mouth as white as any Horſe, which as in the Horſe it riſeth through vehement ſtirring, ſo in the Boar it riſeth through vehement heat and fervor. In the time of their luſt they are very ſharp, eager, and cruell, fighting with all males that come in their preſence, and therefore they arm their bodies by rowling in the durt, and alſo by rubbing them againſt trees, that ſo they may be hard to withſtand one another. This fight of Boars is thus deſcribed of *Virgil*:

Per ſilvas tum ſævus Aper, tum peſſima Tigris,
Ipſe ruit denteſque ſabellicus exacuit Sus,
Et pedibus ſubigit terram, fricat arbore coſtas,
Atq; hinc atq; illinc humeros ad vulnera durat.

The fight of Boars.

Being inflamed with venereal rage, he ſo ſetteth upright the briſtles of his neck, that you would take them to be the ſharp fins of Dolphins; then champeth he with his mouth, grateth and gnaſheth his teeth one againſt another, and breathing forth his boyling ſpirit, not only at his eyes, but at his foaming white mouth, he deſireth nothing but copulation, and if his female endure him quietly, then doth ſhe ſatisfie his luſt, and kill all his anger; but if ſhe refuſe, then doth he either conſtrain her againſt her will, or elſe layeth her dead upon the earth. Sometimes they force a tame Sow, and then the Pigs ſo begotten are called *Hibridæ*, that is, by way of contumely, Baſtards: And it is to be obſerved, that never any wilde beaſt being tamed, doth engender by copulation, except they be tamed very young, only wilde Boars do quickly mingle with vulgar Swine. The female of this kinde hath no teeth ſtanding out of her mouth like the male, except very ſhort ones, and therefore the reſidue are more like a ſaw then the teeth of a Boar, for it is a generall rule;

Nulli dentes exerti quibus ſerrati.

Concerning the diſpoſition of Boars in generall, it is brutiſh, ſtubborn, and yet couragious; wrathfull, and furious, becauſe their blood is full of fibres, and miniſtreth unto them ſudden matter of anger; neither are there any beaſts ſo cloathed with hair as Lions and Boars; wherefore both of them are of like fierce and angry nature, yet we have ſhewed in the ſtory of the Hart, how they were drawn from their meat and dens by the voice of Muſick. It is ſaid, that they are not capable of any diſcipline or inſtruction, and yet *Scaliger* affirmeth, that he ſaw a Bore that belonged to the Lord of *Salvimont*, of an exceeding great ſtature, tamed by his maſter, who at the ſounding of the horns, would come running like a Dog to hunting, and go abroad with his maſter among the Dogs, contending with the moſt ſwift in race to attain the prey.

They naturally deſire to bury their own footſteps in wet miery places, that they may not be found out by the Hunters; and as the rage of the Boars is greateſt in the time of their luſt, ſo is it in the Sowes after their farrowing; and therefore it was an excellent ſpeech of *Cyaxares* unto *Cyrus*, that Swine when they ſee the Hunter, although they be many, yet run away with their Pigs; but if the Hunter follow one of the young ones, then doth the Dam turn again, and with all her force endeavour to deſtroy him that would deprive her of her young ones. Before the Boars do fight, they go and whet their teeth, but while they are in contention, if it happen that a Wolf cometh in ſight, then they forſake their mutuall combats, and all of them joyn together to drive away the Wolf. The Beare dareth not to enter upon the wilde Boar, except behinde him, and unawares. *Heſiod* ſaith, that *Vulcan* pictured upon the ſhield of *Hercules*, the images and ſhapes of many wilde beaſts fighting one with another, neither of both yeelding to other, till both of them fell down dead, which cauſed *Alciatus* to make this Emblem of a Vulture ſtanding by to ſee their contention, and ſuffered them to kill one another without parting, whereby afterwards ſhe enjoyed their dead carkaſes:

Dum ſævis ingerunt in mutua vulnera telis,
Vngue leæna ferox, dente timendus aper,
Accurrit vultur ſpectatum, & prandia captat,
Gloria victoris, præda futura ſua eſt.

Swimming of Boars.

It is reported that Boars will ſwim ſingle and alone like fiſhes, and ſome of them two together like Wolves, and many times in flocks and heards like Roes, for ſuch is their ardent nature and deſire of meat, that they fear not the higheſt Mountains, nor the deepeſt waters. Now concerning the fleſh of wilde Boars, although we have ſpoken abundantly in the former diſcourſe of Swine, yet muſt we adde ſomething in this place; for although generally the fleſh of tame Swine is viſcous and cold, yet the fleſh of the wilde is more temperate and nouriſhable, and therefore of lighter concoction and ſtronger nouriſhment. Therefore thoſe which had a Timpany were preſcribed to eat Boars fleſh and wilde Sowes, for it drieth, ſtrengthneth, and moveth; and men that are vexed with Saint Anthonies fire, are forbidden to eat all ſalt meats, and leavened bread, yet permitted to eat of Boars fleſh. It is reported, that *Publius Servilius Rullus*, was the very firſt among all the *Romans* that did ſet at his Table a whole Boar, moſt delicately dreſſed and ſtuffed with variety of divers coſtly diſhes; which Boar by *Varro* is called *Aper Millianius*, that is, *Mille librorum*, of a thouſand pound worth; againſt which intolerable gluttony and coſt, *Juvenal* made theſe Verſes;

——Quanta eſt gula quæ ſibi totos
Ponit Apros, animal propter convivia natum.

Apitius in the beginning of his eight book, preſcribeth the manner how to dreſſe the fleſh of wilde Boars, wherewithall if any be delighted, let him read that book; for it is not my purpoſe in this *Treatiſe*, to blot any paper with any long inſtruction for Cooks and Belly-gods, neither were it any part of this naturall Hiſtory, nor yet agreeable to my calling or enterpriſe: and therefore I will only adde this obſervation of *Miſaldus*, that Boars fleſh ſalted in powdring tubs, doth change both colour and taſte, at that time of the year wherein the living Boars do rage upon their females: And thus much ſhall ſuffice to have ſpoken of Boars fleſh.

Of the hunting of wilde Boars.

Now in the next place we will proceed to talk concerning the hunting of Boars, which is not only a paſtime for Lords and Princes, but alſo a neceſſary labour for meaner men; for as the harm that cometh by Boars is exceeding great, and ſo much the greater by how much he is poorer that doth ſuſtain it, ſo the utility to learn the means of deſtroying this beaſt is is more commodious, becauſe the common proverb is more true in this then in the vulgar Swine, that they never do good till they are dead.

It is reported of *Diocletian*, when he was Agent for the *Romans* in *France*, there came an old Woman called *Dryas* unto him, and reproved him for his covetouſneſſe, telling him that he was over-ſparing, and parſimonious; to whom he anſwered in jeſt, When I am Emperour I will be more liberall: *Dryas* replyed unto him, *Noli jocare Diocletiane, nam Imperator eris cum Aprum occideris.* That is, Jeſt not, O *Diocletian*: for thou ſhalt be Emperour when thou haſt killed *Aper*; (that was a Boar as he thought) and therefore he gave himſelf to the hunting of Boars, never ſparing any time that was offered unto him, alwayes expecting the event of that ſpeech; whereof he was fruſtrated untill he killed *Arius Aper*, the Governour of the Judgement Hall, and then afterwards being Emperour, he knew that the woman did not mean a Boar, but a man. Now therefore the hunting of Boars, and the manner of their taking is many wayes, either by violence in chaſe, or by policy in ditches and traps, or elſe by impoyſoned baits. The beſt time of their hunting is in the middeſt of Winter, as ſome ſay; but I think the Winter is the worſt time, becauſe then they are ſtrongeſt, and ſeeing all Swine are impatient of heat, the Summer will quickly end their life, if then they be chaſed. It behoveth therefore the Hunter of Boars to be very wary, and therefore the Ancients ordained that ſuch a one ſhould wear a rough garment of a brown colour, and likewiſe that his Horſe ſhould be of a yellow and fiery colour, and that the Boar-ſpear ſhould be ſtrong and ſharp, for this beaſt is armed with a very ſtrong head and skin, and beſides they cover themſelves with dried durt, as it were with a Coat of male to blunt the weapon, and therefore he runneth willingly either without dread or fear upon the Hunters. In which encounter if he receiveth not a deadly wound, he overthroweth his adverſary, except he fall flat on the ground, for the Boars teeth cannot cut upward, but downward; therefore if the Hunter be a foot-man, he muſt ſeat himſelf neer ſome tree, and then alſo provide that if he miſſe the Boar, he may eaſily climb into the boughs, and ſo ſave himſelf; but if the Swine that is raiſed be a female, ſhe will all to tear and bite the Hunter with her teeth if ſhe get him within her clutches: wherefore, for the more ſpeedy ending of the hunting, it is good to raiſe the beaſt early in the morning, before he hath made water, for the burning of his bladder doth quickly make him weary.

But if the Boar have either made water before, or got liberty and reſt in the chaſe to eaſe himſelf, then will his taking be very difficult and tedious, ſuch is the nature of this couragious beaſt, that he never ceaſeth running till he be weary, and being wearied diſſembleth the ſame by ſitting upon his buttocks, and offereth combate to his Hunter, and yet he is not wont to ſtrike a man, untill he be wounded firſt by him. When the Boar is firſt raiſed out of the Wood, he ſnuffeth in the winde, lifting up his noſe to ſmell what is with him, and what is againſt him.

The hunting Spear muſt be very ſharp and broad, branching forth into certain forks or horns, ſo as by no means the Boar ſhall break through them upon the Hunter, and when he bendeth the ſame before the beaſt, he muſt ſtand with one leg before another like a Wreſtler, holding his left hand upon the middle of the Spear to direct the ſame, and the right hand behinde, to thruſt it forward with violence, having his eye intent upon the beaſt, and if it be a Boar to wound him in the middle of his forehead betwixt his eye-lids, or elſe upon the ſhoulder, for in both thoſe places the wound is deadly; but if he chance to hit him on the cheek, the greateſt harm that he doth him, is that he maketh him unfit to uſe his tusks: of this he muſt be very carefull that if the Boar leap upon him, he likewiſe muſt give back and draw out his ſword; and if he chance to be overturned, then to lye down in ſome hollow place where the Boar cannot come at him with his teeth.

Now concerning the inſtruction of Dogs, and the choice of ſuch Hounds as are appointed for the hunting of Boars, you muſt note, that every Dog is not fit for the ſame, but great maſtives, ſuch as are uſed for the baiting of Bears. For the Boar firſt of all terrifieth the Dog with his voyce, and if he be not ready to fight but to run away, then are the Hunters in worſe caſe then at the beginning. Therefore they muſt be ſure to have them well inſtructed before they give the onſet, and be likewiſe at hand to encourage them. When they come firſt of all to the place wherein they conjecture the Boar is lodged, if there be no appearance either by his footſteps, or by the wounds of his teeth upon the trees and boughs, then let them let looſe one of the beſt Hounds, and caſting about the Wood, follow with the reſidue whither the crie goeth.

The Dog preſſeth into the thickeſt buſhes where commonly the Boar lodgeth, and when he hath found the beaſt he ſtandeth ſtill and bayeth, then muſt the Hunter come and take up that Dog, for the Boar will not ſtir very eaſily out of his lodging, and go and ſet up his nets and toyls in all the by-places, whereby it is likely the beaſt will paſſe, and theſe muſt he hang to ſome trees, for poſtes in the earth will not ſuffice, alwayes making the inſide of them very light, that the beaſt may ſuſpect no harm. The nets being thus ſet up, let him return again to his Dogs, looſing them all; and every Hunter arming himſelf with darts and a Boars Spear, ſo let the moſt skilfull follow the Dogs cloſe to exhort them and ſet them on, the reſidue follow one after another a good diſtance, ſcattering themſelves into ſundry angles, for their better ſafeguard and end of their ſport: for if they ſhould come all together, the Boar might light upon them, and wound ſome of them, for upon whomſoever he falleth in his rage he hurteth them: furthermore when the Dogs begin to come neer to his lodging, then muſt they be ſet on more eagerly, and ſo heartned that they be no wayes appalled at the raiſing of the Boar, for his manner is to make force at the foremoſt Dog that is neereſt to him, ſo muſt he be followed in chaſe even unto the nets, but if the nets ſtand upon a ſide-hill, or a ſteep rock, then when he is inſnared he will get out with no difficulty; but if it ſtand upon plain ground, the toyls will hold him till the Hunters come, who muſt preſently take care to wound him with darts and ſpears before they meddle with him, compaſſing him round about very warily, ſo that he nor they hurt any of the Dogs, and eſpecially they muſt wound him in the face or ſhoulders, where the wounds are mortall, as I have ſaid before: but if it happen that the beaſt getteth looſe when he feeleth the blowes, the Hunters muſt not ſtart away, but the ſtrongeſt of them to meet him with his ſpear, ſetting his body as we have formerly expreſſed, having an eſpeciall eye to the beaſts head, which way ſoever he windeth and turneth the ſame, for ſuch is the nature of the Boar, ſometimes he ſnatcheth the ſpear out of the Hunters hands, or elſe recoyleth the force back again upon the ſmiter, for by both theſe means the Hunter is overcome and overthrown: Whenſoever this hapneth, then is there but one means to ſave the Hunters life, which is this; another of his companions muſt come and charge the Boar, making as though he would wound him with his dart, but not caſting it for fear of hurting the Hunter under his feet. When the Boar ſeeth this, he forſaketh the firſt man, and ruſheth upon the ſecond, who muſt look to defend himſelf with all dexterity, compoſing his body, and ordering his weapons, according to artificiall Boar-hunting, and in the mean ſeaſon the vanquiſhed Hunter muſt ariſe again, taking freſh hold on his ſpear, and with all courage ſetting upon the adverſary beaſt, to wound him either in the ſhoulders or in the head, for it is no credit to eſcape with life, except he kill and overcome the Boar.

When he feeleth himſelf thus wounded that he cannot live, if it were not for the croſſes and forks upon the Boar-ſpear, he would preſſe in upon the vanquiſher to take revenge for his death: For ſo great is the fervent wrath of this beaſt, that he ſpareth not to kill and wound, although he feel upon him the pangs of death: and what place ſoever he biteth either upon Dog or man, the heat of his teeth inflicteth a dangerous inflaming wound: and for this cauſe if he doth but touch the hair of Dogs, he burneth it off: but if it be a female that is raiſed, (for there is as great a rage in females as in males, though not ſo great power) then muſt the Hunter take heed he never fall to the ground, for as the male hurteth not but when a man ſtandeth or lieth high, ſo the female hurteth not but when a man falleth or lyeth low: therefore if the Hunter chance to fall, he muſt raiſe himſelf with all ſpeed, uſing no leſſe dexterity and courage againſt the female, then he doth againſt the male.

There is alſo another manner of hunting wilde Swine, which is this. Firſt of all they ſet up their nets in all paſſages, through which it is likely the beaſt will go, then do the men and Dogs with a gallant crie, filling the woods and fields, raiſe them out of their lodgings. In the mean ſeaſon ſetting ſome valiant Hunters to keep the nets. When the beaſt perceiveth that he is ſought after, up he ſtarteth, looking about him like an evil ſpirit, where he may devour, but being terrified with the crie of men, and purſued by a multitude of greedy Dogs, forth he runneth in ſome of his uſuall wayes, carefully looking behinde him, to avoid the train that followeth, untill he fall faſt encloſed into the Hunters nets, then cometh the keeper of the nets, and woundeth him with his Boar-ſpear, as I ſaid before: but if it fortune that he fall out of the nets, or never cometh to them, then muſt they proſecute him, both men and Dogs, untill they have wearied him, for ſuch is the heat of his body, that he cannot long ſtand, and although he ſhall lodge himſelf in ſome Mariſh or Woods where the Hunters can have no uſe of their nets, yet muſt they not be afraid to approach unto him, and with ſuch hunting inſtruments as they have, ſhew the magnitude and courage of their minde, by attaining their game by the ſtrength of hand, when they are deprived from the help of Art: And to conclude, the ſame deviſes, diligence, labour, proſecution, and obſervations, are to be uſed in the hunting of the Boar, which are preſcribed for the hunting of the Hart. It ſeldome falleth out that the Pigs of wilde Swine are taken, for they run and hide themſelves among the leaves, and in the Woods, ſeldome parting from their parents untill their death, and as we have ſaid already, the dams fight for their young ones moſt irefully. For it is not with theſe as with the vulgar Swine, that they beat away their young ones from following them, but becauſe they conceive but ſeldome, they ſuffer their Pigs to accompany them a whole year: And thus much for the violent and forcible hunting of Boars. Now followeth the artificiall deviſes and policies which have been invented for the ſame purpoſe, whereby to take them without purſuit of Dogs: And firſt of all, the ſame engins which we have preſcribed for taking of the Hart, are alſo in uſe for taking of the Boar, and *Petrus Creſcentienſis* ſheweth how a multitude of Boars may be taken together in one ditch; and firſt of all (he ſaith) neer to the place where Boars make their abode, they ſow in ſome plain fields a kinde of fatting corn which Hogs love, and about that field they make a high and ſtrong hedge, of the boughs of trees in the one part, whereof they leave a great gap, yet not altogether down to the ground. At the time of the year when the grain waxeth ripe, the Boars gather thereinto in great number: now right over againſt the ſaid gap on the other ſide, there is another little low place of the hedge left, over which the Swine may eaſily leap. When the watch-man hunter ſeeth the field full, he cometh alone and unarmed to the firſt gap, and therein he ſtandeth lewring and making a terrible noiſe to affright the Swine; now on the other ſide where the hedge is left low, there is alſo made a vaſt and deep ditch, the Hogs being terrified with the preſence and noiſe of the Hunter, and ſeeing him ſtand in the place of their entrance, run to and fro to ſeek another eſcape, and finding none, but that low place of the hedge before the ditch, over they preſſe headlong as faſt as they can, and ſo fall into the trench one upon another. Again, neer *Rome* there be divers that watch in the woods, and in the night time when the Moon ſhineth, ſet up certain Iron inſtruments through which there gliſtereth fire, unto which the Boars and wilde Swine will approach, or at the leaſtwiſe ſtand ſtill and gaze upon them, and in the mean ſeaſon the Hunters which ſtand in ſecret come and kill them with their darts: and to conclude, in *Armenia*, there are certain black venemous fiſhes, which the inhabitants take and mixe with meal and caſt them abroad where Boars and wilde Swine did haunt, by eating whereof as alſo Hemlock and Henbane, they are quickly poiſoned, and die: And thus much we have ſhewed out of *Xenophon* and other Authors, the ſeverall wayes of hunting and taking of wilde Swine.

Politick means to take Boars.

Men that have periſhed by Boars in hunting.

Now foraſmuch as the hunting thereof hath been often ſhewed to be dangerous both to men and Dogs, I will a little adde ſome hiſtories concerning the death of them, which have been killed by Boars. For if that cometh not to paſſe which *Martiall* writeth;

Thuſcæ glandis Aper populator, & ilice multa,
Impiger Ætolæ fama ſecunda feræ,
Quem meus intravit ſplendenti cuſpide cultor,
Præda jaces noſtris invidioſa focis.

I ſay, if the Boar be not killed by men, the Hunter is conſtrained many times to ſay with *Lydia* in the ſame Poet,

Fulmineo ſpumantis apri ſum dente perempta.

Apuleius reporteth of one *Leopolemus*, that he loved the wife of *Thraſillus*; now to the intent that he might poſſeſſe her, he took her husband abroad with him to the hunting of a Boar, that under colour thereof he might kill him, and ſay the Boar ſlew him: Being abroad, the nets raiſed, and the Dogs looſed, there appeared unto them a Boar of a monſtrous ſhape, wonderfull fat, with horrible hair, a skin ſet with ſtanding briſtles, rough upon the back, and his mouth continually foaming out abundance of froath, and the ſound of his gnaſhing teeth ringing like the ratling of armor; having fire-burning eyes, a deſpiteful look, a violent force, and every way fervent: he ſlew the nobleſt Dogs which firſt ſet upon him, not ſtaying till they came to him, but he ſought out for them, breaking their cheeks and legs aſunder, even as a Dog will do ſome ſmall bones; then he trod down the nets in diſdain, paſſing by them that offered him the firſt encounter, and yet remembring his own vigor and ſtrength, turning back again upon them, firſt overthrowing them, and grinding them betwixt his teeth like Apples, at length he meets with *Thraſillus*, and firſt teareth his cloth from his back, and then likewiſe tore his body in pieces, and this man I remember in the firſt place to be killed by this monſter-Boar, whether he was a beaſt or a man. *Martiall* in his book of ſpectacles remembreth a ſtory of *Diana*, who killing of a wilde Sow with Pig, the young ones leaped out of her belly, and this I thought good to remember here, although it be ſomewhat out of place;

Inter Cæſarea diſcrimina ſæva Dianæ,
Fixiſſet gravidam cum levis haſta ſuem.
Exiliit partus miſeræ de vulnere matris,
O Lucina ferox, hoc peperiſſe fuit?

Anceus the father of *Agapenor* was killed by the *Calidonian* Boar, as we have ſaid already. *Carmon* was ſlain by a Boar in the mountain *Tmolus*. There was one *Attas* a *Syrian*, and another an *Arcadian*, and both theſe were ſlain by Boars, as *Plutarch* writeth in the life of *Sertorius*. It is reported of one *Attes* a *Phrygian*, that as he kept his Sheep he did continually ſing ſongs in commendation of the mother of the Gods, for which cauſe ſhe loved him, honoured him, and often appeared unto him; whereupon *Jupiter* fell to be offended, and therefore ſent a Boar to kill *Attes*. *Rea* after his death lamented him, and cauſed him to be buryed honourably. The *Phrygians* in his remembrance did every year in the ſpring time lament and bewail him.

Adonis alſo, the Leman of *Venus*, is faigned of the Poets to be killed by a Boar: and yet *Macrobius* ſaith, that it is an allegory of the Sun and the Winter, for *Adonis* ſignifieth the Sun, and the Boar the Winter: for as the Boar is a rough and ſharp beaſt, living in moyſt cold, and places; covered with froſt, and doth properly live upon winter fruits, as Acorns, ſo he is the fitter emblem for Winter, that is, a devourer of the Suns heat and warmth, both which fall away by death from all living creatures. When *Teuthras* a King of *Myſia* went to hunt in the mountain *Thraſillus*, he ſtarted a huge great Boar, which he and his guard followed and hunted unto the Temple of *Diana Orthoſia*, whereinto the Boar entred for ſanctuary.

The poor beaſt ſeeing the Hunters at hand, cryed out with the voice of a man: *Parce ô rex pecudi Deæ*, O King ſpare *Dianaes* Boar: But the king being nothing at all moved therewith, ſlew him in the Temple; which wickedneſſe the Goddeſs could not endure, and therefore firſt of all ſhe reſtored the Boar to life, and afterwards afflicted the King with madneſſe, who was therefore driven into the Mountains, and there lived like a beaſt.

When *Lyſippe* his mother knew hereof, ſhe went to him into the Woods, and carryed *Cyranius* the Prophet, who inſtructed him to pacifie the Gods by a ſacrifice of Oxen, which when it was performed, the King recovered again his right minde; and ſo his mother in remembrance thereof, built there a Chappell to *Diana*, and ſet thereupon the picture of a Boar in Gold, with a mans mouth. There was alſo a cuſtome in ancient time for champions and their fathers brethren and kindred to ſwear by a Boar cut in pieces. And thus much for the naturall and morall ſtory of the Boar, which I will conclude with thoſe verſes of *Horace*, deſcribing the prodigious habitation of Boers in the waters, and *Dolphins* in the Woods, as if one had changed with another;

Delphinum ſilvis appingit, fluctibus aprum,
Qui variare cupit rem prodigialiter unam.

The Medicines of the wilde Swine.

There are declared a M. things concerning the remedies of Goats, but a larger and more ample power ſhal be ſhewn of a wilde beaſt of the ſame kinde. Alſo the ſame regard ſhall be had concerning the remedies of a tame Sow and a wilde Boar, yea, of all other tame and wilde beaſts, that is, that the ſame or things like to either of them may be ended, differing only according to more or leſſe, becauſe the ſame parts of wilde beaſts living, are leſſe moiſt and cold then thoſe that are tame. That which we repeat here concerning the common remedies of a Boar and Sow tamed, in ſome of the parts of them, to wit, the blood, the brain, the cheek-bone, the lungs or lights, the liver, the gall, the ankle bone, the hoof, the dung, and urine, is not in the Sow repeated before.

The brains of a Boar taken with blood, is very much commended againſt the bitings of Serpents. Again, the brains and blood of a Boar, doth help thoſe that fear the coming of Carbuncles. The lard and fat of a Boar being ſodden and bound faſt together, doth with a wonderfull celerity make firm thoſe bones that are broken. The fat of a Boar mingled with Hony and Rozin, is very much commended againſt the bitings of Serpents.

The fat of a wilde Boar mingled with the fat of the lungs or lights, doth very much profit thoſe which have their feet broken or bruiſed by any miſchance. The fat of a Boar being mixed with Oyl of Roſes, is very good for thoſe that are troublnd with bliſters or puſhes, it being anointed thereupon. The brains of a Boar is very profitable for Carbuncles, and the pains of a mans yard. The brains of a Boar being bruiſed very ſmall in Hony, and put thereto, doth wonderfully make it ſound. The brains of a Boar ſodden and drunk in wine, doth eaſe all the pains and griefs. There are more things ſpoken concerning the remedies of the brain in the medicines of the Sow. The aſhes of the cheek-bone of a Boar doth cure thoſe ulcers which do encreaſe bigger by little and little.

Alſo the ſame thing doth make firm thoſe bones that are broken. The lungs or lights of a Boar mixed with hony, and put upon the feet after the manner of a mollifying emplaiſter, they ſhall be freed from all exulcerations: *Dioſcorides* alſo doth commend the lungs or lights of Sowes, Lambs; and Bears. The liver of a Boar being new killed and ſcorched by a fire, and beaten to powder, and ſo being taken in wine, is an eſpeciall remedy againſt the bitings of Serpents and Dogs. The liver of a Boar being old, and drunken in wine with Rue, is very much commended againſt the bitings of Serpents. The Fibres of the liver of a Boar, and thoſe eſpecially which are neereſt to the entrance of the gall and liver, being taken in Vinegar or rather wine, is much profitable againſt the bitings of Serpents.

The liver of a Boar is good to revive thoſe whoſe ſpirits are drowſie. The liver of a Boar doth much profit, being ſtopped in the ears, for thoſe that are troubled with Apoſtumes or any running ſores therein. The liver of a Boar being new killed and drunken in wine is very effectuall againſt the looſeneſſe of the belly. There are certain little ſtones in the liver of a Boar, as there is in a common or vulgar Sow, or at leaſtwiſe like unto little ſtones, and they are alſo white, which being ſodden and taken in wine, are very effectuall againſt the diſeaſe of the Stone. Thou ſhalt read many more things concerning the remedies of the liver of a Boar in the medicines of the Sow. The gall of a Boar is very much commended for Wennes or ſwellings in the neck.

The gall of a Boar being mingled with Roſin and Wax, doth cure thoſe ulcers which do encreaſe bigger and bigger. The gall of a Boar, and Lambs milk, being mingled together, and dropped in the ears, is very profitable for all pains therein. The body of a man being anointed with the gall of a Boar, doth ſtirre him up to carnal copulation. The gall of a Boar being mingled with ſewet and applyed upon every joynt of the body, doth immediately cure all pains of the Gowt. We have declared alſo many things in the medicines of the Sow, concerning the remedies of the gall of a Boar. The ſtones of a Boar being eaten is very good againſt the Falling ſickneſſe, or the ſtones of a Boar being taken in Mares-milk or water, is alſo very effectual againſt the ſame diſeaſe. The hoofs of a Boar being burned to aſhes, and ſprinkled upon drink, and ſo taken, doth very much help thoſe that cannot eaſily make water.

The hooves of a Boar being burned and beaten to powder, and given in drink, is very effectual againſt the ſtopping of urine. The hooves of a Boar or Sow being burned, and given to drink in wine, is very much commended for thoſe that cannot hold their urine in their ſleep. The dung of a Sow (which liveth in the Woods) being dryed and drunk in water and wine, doth ſtay the voiding of blood, and doth eaſe alſo old pains of the ſides: And again being taken in Vinegar, it doth ſtay all ruptures and convulſions, and alſo being mingled with the ſyrup of Roſes, it doth remedy or help thoſe places which are out of joynt.

The dung of a Boar being new made, and hot, is a ſpeciall remedy againſt the flux of blood which iſſueth forth of the Noſtrils. The dung of a Boar being mingled in wine, and applyed after the form of an emplaiſter, do preſently draw away and make ſound any thing which cleaveth to the body. It being alſo bruiſed and ſodden with hony, and afterwards kneaded like Dough, and ſo applyed to the joynts, doth eaſe all pains that ariſe therein.

An emplaiſter made of the dung of a Boar, is very profitable againſt all venemous bitings, for it draweth forth the poyſon. All other ulcers are filled up and cleanſed with the dung of a Boar, except thoſe which ariſe in the thighes. The dung of a Boar dried and beaten to powder, and ſprinkled upon drink, doth cure all pains of the ſides. Again, it being dried and beaten to powder, and adminiſtred in wine, doth not only cure the pain in the Spleen, but alſo the pain in the kidneys The dung of a Boar being burned to the aſhes, and given to drink in wine, doth eaſe all pains in the knees and legs. The dung of a Boar new made and anoynted upon thoſe places that are out of joynt, is very profitable for them. The dung of a field-boar mixed with brimſtone, and taken in wine, and ſtrained Pitch, is very commendable for pains in the hips. The dung of a Boar being mingled with wine, and afterwards ſtrained, and given to drink, about the meaſure of two little cupfuls at a time, doth ſpeedily help thoſe which are troubled with the Sciatica.

Pliny.
Marcellus.

It alſo being ſodden in Vinegar and Hony, doth mitigate all pains that riſe in the feet or ankles The dung of a Boar burned to aſhes, and ſprinkled upon wine luke-warm, and ſo given to drink, doth help all thoſe that are troubled with the bloody-flix. The reſt of the remedies which concern the dung of a Boar, thou ſhalt find in the medicines of the Sow. The urine of a Boar mingled with Hony and water, and ſo taken, is a ſpeciall remedy for thoſe that are troubled with the Falling ſickneſſe.

Again, the urine of a Boar being taken in ſweet Vinegar, doth drive out thoſe things which are dryed in the bladder. The urine of a Boar being kept in a glaſſe, doth cure all diſeaſes and pains in the ears, but it is eſpecially profitable for thoſe which cannot hear. The urine of a Boar being kept in a glaſſe, and made luke-warm, and dropped into the ears, is a ſpeciall remedy for all Apoſtumes that are therein. The urine of a Boar which is kept long, is far more profitable, if ſo be that it be kept in a veſſel of glaſſe. Again, the urine of a Boar being dryed in ſmoak, and moiſtened with Hony, and ſo powred into the ears, doth cure the deafneſſe of the ears.

Sextus.

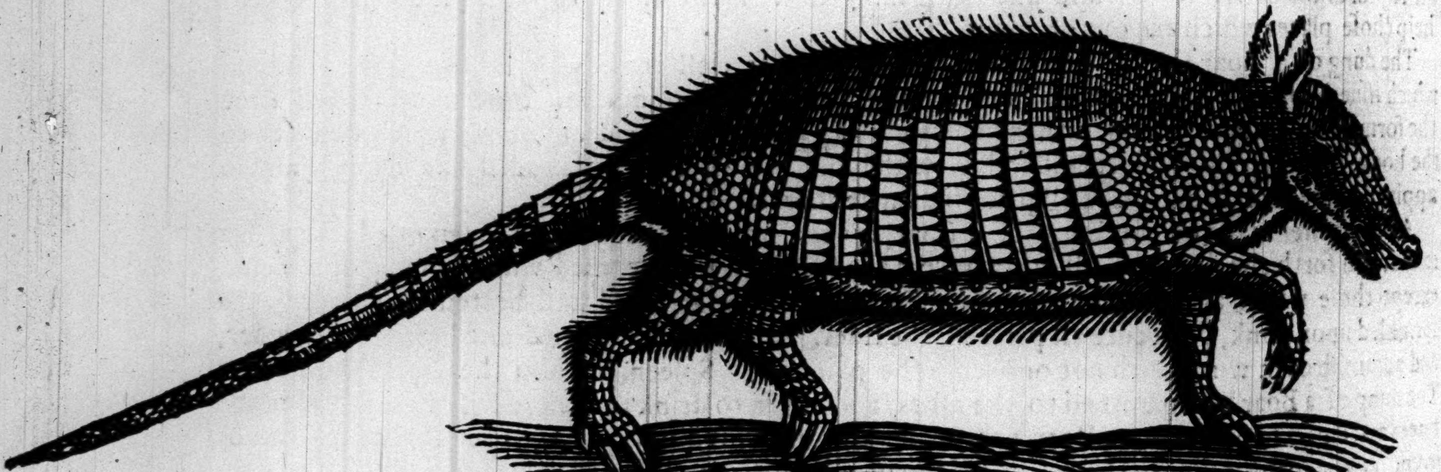
The urine of a Boar, and Oyl of Cypreſſe, each of them being equally mingled, and made luke-warm, is alſo good for the ſame diſeaſe.

The urine of a wilde Boar alſo is of the ſame force and vertue. The bladder of a wilde Boar doth ſtay the incontinency of the urine, if it be eaten, roſted, or boyled. The blather of a Goat being burned to powder, and given to drink in water and wine, is very good and profitable for thoſe which cannot make water eaſily. The urine of a Boar being drunken, doth help thoſe that are troubled with the ſtone in the bladder, but it is more effectuall if it be firſt of all mingled with *Sextus.* the dung. The Bladder of a Boar moiſtened with the urine, and hung up untill the wateriſh humor cometh forth, and then boyled and given to thoſe which are truculent with the Strangury, is very profitable and good for them.

The Bladder of a Boar being dried and given in drink, is very profitable for thoſe which are troubled with pains in the bladder and wringings of the guts. The urine of a tame Boar hung up in the ſmoak in the bladder of a Sow, and mixed with drink, is very profitable for thoſe that are troubled with the Strangury. The urine of a Boar, or at leaſt wiſe the bladder being given in drink, hath cured thoſe which have been troubled with the Hydropſy as ſome do ſay. The urine of a Boar being taken in drink, is very good for thoſe that are troubled with the Stone.

Now foraſmuch alſo as Hunters are hurt by ſome, I thought it good to ſet down what remedies *Marcellus.* is fit for them. Therefore the wounds made of them are dangerous, becauſe they are not only deep, but alſo large and great, and it is alſo impoſſible to bring them to a glutination with medicines, for the lips of the wounds which is made by contuſion, are cut off and burned. They uſe a mutuall gnaſhing and ſtriking of their teeth together, as it were againſt a whetſtone, to take revenge upon thoſe which purſue and follow them. Therefore they cauſe a certain ſcab to grow upon the lips of the wound, wherefore it is meet to uſe a ſuppurative and not a glutinative manner of cure in them. It is meet to uſe in running and moiſt ulcers, not hot things, but cold, both in Winter and Summer. For it is an eaſie matter for a Boar to hurt a Horſe in the inſide of his knee, in the time of his hunting, which doth breed to a wateriſh ulcer, and there doth alſo follow a ſwelling. To this cold things are to be applyed, and it is to be cured by anointing it with a medicine which is called *Diachalcanthes*, or the head of a Dog, being burned about the tongue, and beaten into powder, and ſo to be applyed after the manner of a Cataplaſme. And thus much concerning the medicines of the Boar.

Of the *TATUS*, or *Guinean* Beaſt.

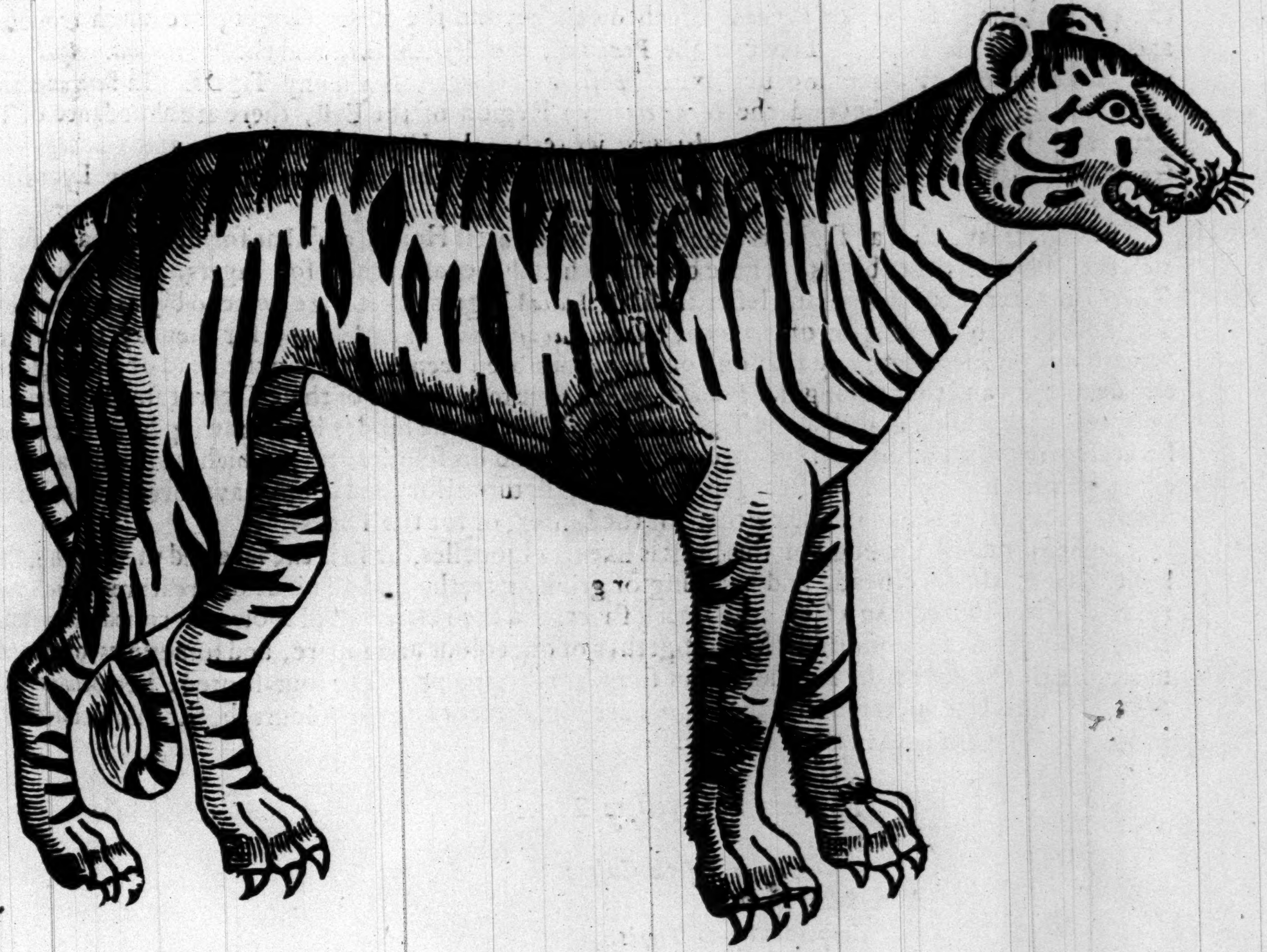


THis is a four-footed ſtrange Beaſt, which *Bellonius* ſaith, he found in *Turchia*, among the Mountebanks and Apothecaries. It is brought for the moſt part out of the new-found world, and out of *Guinea*, and therefore may be ſafely conveyed into theſe parts, becauſe it is naturally covered with a hard ſhell, divided and interlined like the fins of fiſhes, outwardly ſeeming buckled to the back like Coat-armor, within which the beaſt draweth up his body, as a Hedge-hog doth within his prickled skin; and therefore I take it to be a *Braſilian* Hedge-hog. It is not much greater then a little Pig, and by the ſnout, ears, legs, and feet thereof, it ſeemeth to be of that kind, ſaving that the ſnout is a little broader, and ſhorter then a Pigs, and the tail very long like a Lizards or Rats, and the ſame covered all over with a cruſt or ſhell. The gaping of the mouth is wider then a Swines; and one of theſe being brought into *France*, did live upon the eating of ſeeds, and fruits of the Gardens, but it appeareth by that picture, or rather the skin ſtuffed, which *Adrianus Marcellus* the Apothecary of *Ulmes*, ſent unto *Geſner*, from whence this picture here expreſſed was taken, that the feet thereof are not cloven into two parts like Swine, but rather into many like Dogs, for upon the hinder feet there are five toes, and upon the fore feet four, whereof two are ſo ſmall that they are ſcarce viſible. The breadth of that ſame skin was about ſeven fingers, and the length of it two ſpans, the ſhell or cruſt upon the back of it did not reach down unto the rump or tail, but broke off as it were upon the hips, ſome four fingers from the tail. The Merchants as I have heard, and Citizens of *London* keep of theſe with their Garden worms.

Of the *AIOCHTOCHTH*.

THere is another beaſt that may be compared to this, (whereof *Cardanus* writeth) and he calleth the name of it *Aiotochth*. It is a ſtrange creature found in *Hiſpania Niva*, neer the River *Alvaradus*, being not greater then a Cat, having the bill or ſnowt of a Mallard, the feet of a Hedge-hog, and a very long neck. It is covered all over with a ſhell like the trappings of a Horſe divided as in a Lobſter, and not continued as in an Oyſter; and ſo covered herewith, that neither the neck nor head appear plainly, but only the ears; and the *Spaniards* for this cauſe call it *Armato*, and *Contexto*: There be ſome do affirm that it hath a voice like a Swine, but the feet thereof are not indeed ſo cloven, that they remain unequal, but are like to a Horſes, I mean the ſeverall cloves. There are of theſe as I have heard to be ſeen in Gardens in *London*, which are kept to deſtroy the Garden worms.

Of the *TIGER*.



The names of Tigers.

THE word *Tigris* is an *Armenian* word, which ſignifieth both a ſwift Arrow, and a great River, and it ſhould ſeem that the name of the River *Tigris* was therefore ſo called, becauſe of the ſwiftneſſe thereof; and it ſeemeth to be derived from the *Hebrew* word *Gir* and *Griera*, which ſignifie a Dart. *Munſter* alſo in his Dictionary of three languages, doth interpret *Tigros* for a Tiger. In the 4. of *Job* the word *Laisk* by the Septuagints is tranſlated *Murmeleon*, and by S. *Jerom*, *Tigris*. The *Jewes* call the ſame beaſt *Phoradei*, which the *Grecians* call *Tigris*; and all the people of *Europe*, to whom this beaſt is a ſtranger, call it after the *Greek* name, as the *Italians*, *Tigre* and *Tigra*, the *French Un Tigre*, and the *Germans Tigerthier*.

Of the Riv
Tigris.

Now concerning the name of the River *Tigris*, which becauſe it joyneth in affinity with this beaſt, it is neceſſary that I ſhould ſay ſomething in this place, becauſe that we finde in holy Scripture that it is one of the four Rivers which runneth through Paradiſe; which according to *Joſephus*, maketh many compaſſes and windings in the world, and at laſt ſaileth into the Red ſea; and they further ſay, that there is no River of the world that runneth ſo ſwiftly as this: And therefore *Tigris vocatur, id eſt Sagitta, quod jaculum vel ſagittam velocitate æquet*: That is, it is called a Tiger, a Dart, or Arrow, becauſe it runneth as faſt as an Arrow flyeth: and for this cauſe we finde in *Theocritus*, that a River in *Sicilia* was called *Acis*, that is, *Spiculum*, a Dart.

Some of the Poets do derive the name of the River *Tigris* from this Tiger the wilde beaſt, whereupon theſe Hiſtories are told. They ſay, that when *Bacchus* was diſtracted, and put out of his wits by *Juno*, as he wandered to and fro in the world, he came to the River *Sylax* (which was the firſt name of this water) and being there deſirous to paſs over, but found no means to accompliſh it, *Jupiter* in commiſeration of his eſtate did ſend unto him a Tiger, who did willingly take him upon his back, and carry him over; Afterward *Bacchus* called that ſwift River by the name of that ſwift beaſt, Tiger. Others do report the tale thus. When *Dionyſius* fell in love with the Nymph *Alpheſibæa*, whom by no means either by promiſes, intreaties or rewards he could allure unto him, at laſt he turned himſelf into a Tiger, and ſo oppreſſing the Nymph through fear, did carry her over that River, and there begot upon her his ſon *Medus*, who when he came to age, remembring the fact of his father and mother, called the name of the River *Tigris*, becauſe of his Fathers transformation. But to leave this matter as not worth the ſtanding upon, whether the River was called after the name of the beaſt, or the beaſt after the name of the River, or rather both of them after the name of the dart or ſwift Arrow, we will proceed to the natural ſtory of the Tiger, commending that to the Readers judgement which is eſſential to this ſtory, containing in it neceſſary learning, and garniſhed with all probability.

Countries breeding Tigers.

Firſt of all therefore, Tigers like Lyons are bred in the Eaſt, South, and hot Countries, becauſe their generation deſireth abundance of heat, ſuch as are in *India*, and near the Red ſea, and the people called *Aſangæ*, or *Beſingi*, which dwell beyond the River *Ganges*, are much troubled and annoyed with Tigers. Likewiſe the *Praſians*, the *Hyrcanians*, and the *Armenians*. *Apollonius* with his companions travelling betwixt *Hiphaſis* and *Ganges*, ſaw many Tigers. In *Berigaza* and *Dachinabades*, which is beyond the *Mediterranean* Region of the Eaſt, there are abundance of Tigers, and all other wilde beaſts, as *Arrianus* writeth. In *Hiſpaniola*, *Ciamba*, and *Guanaſſa*, *Peter Martyr* ſaith, by the relation of a *Spaniard* inhabiting there, that there are many Lyons and Tigers.

Quantity of Tigers.

The *Indians* ſay, that a Tiger is bigger then the greateſt Horſe, and that for ſtrength and ſwiftneſs they excel all other beaſts. There be ſome which have taken them for Tigers, which are called *Thoes*, greater then Lyons, and leſſer then the *Indian* Tigers, as it were twice ſo big as Lyons; but I rather agree to the relation of *Arrianus*, *Strabo*, *Megaſthenes*, and *Mearcus*; for they ſay that a Tiger feareth not an Elephant, and that one of them hath been ſeen to fly upon the head of an Elephant, and devour it: and that among the *Praſians*, when four men led one of theſe Tigers tamed, by the way they met with a Mule, and that the Tiger took the Mule by the hinder leg, drawing him after him in his teeth, notwithſtanding all the force of the Mule and his four leaders; which is unto me a ſufficient argument not only of his ſtrength, but of his ſtature alſo: and if any have been ſeen of leſſer ſtature, they have been miſtaken either for the Linxes, or for the Thoes.

The ſeveral parts.

The ſimilitude of the body of this beaſt is like to a Lioneſſes, for ſo is the face and the mouth; the lower part of the fore-head, and gnaſhing or grinning teeth, and all kinde of creatures which are ravening, are footed like a Cat, their neck ſhort, and their skins full of ſpots, not round like a Panthers, nor yet divers coloured, but altogether of one colour and ſquare, and ſometimes long, and therefore this beaſt and the Panther are of ſingular note among all the four-footed: yet *Solinus* and *Seneca* ſeem to be of opinion that their ſpots are ſometimes of divers colours, both yellow and black, and thoſe long like rods in theſe ſayings:

Tibi dant varia pectora Tigres.

And again:

Ubera virgata feræ Caſpiæ.

And *Silius* ſaith:

Corpore virgato Tigris.

Oppianus.

It were needleſs to ſpeak of their crooked claws, their ſharp teeth, and divided feet, their long tail, agility of body, and wildeneſs of nature which getteth all their food by hunting. It hath been falſely believed, that all Tigers be females, and that there are no males among them, and that they engender in copulation with the winde; whereupon *Camerarius* made this witty riddle in his Rhetorical exerciſes:

A fluvio dicor, fluvius vel dicitur ex me,
Junctaq; ſum vento, vento velocior ipſo,
Et mihi dat ventus natos, nec quæro maritos.

The Epithets.

The Epithets of this beaſts are theſe: *Armenian* Tigers, ſharp, *Ganietican*, *Hyrcanian*, fierce, cruel, and wicked, untamed, ſpotted, divers coloured, ſtraked, bitter, ravenous, *African*, greedy, *Caſpian*, *Carceſian*, *Caucaſean*, *Indian*, *Parthian*, *Marſian*, ſtraight-footed, mad , ſtiffe, fearful, ſtrong, foaming, and violent, with many ſuch others, as are eaſie to be found in every Author. The voice of this beaſt is called *Ranking*, according to this verſe :

Tigrides indomitæ rancant, rugiuntq; Leones.

Now becauſe that they are ſtrangers in *Europe*, as we have ſaid already, never breeding in that part of the world, and as ſeldom ſeen, we muſt be conſtrained to make but a ſhort ſtory of it , becauſe there are not many divers things concerning the nature of it, and in the Phyſick none at all. For the manner of their food, they prey upon all the greateſt beaſts , and ſeldom upon the ſmaller, as Oxen, Harts, and Sheep, but Hares and Conies they let alone.

Their food.

A hiſtory.

It is reported by *Plutarch*, of a tame Tiger that was brought up with a Kid, the ſaid Kid was killed and laid before him to eat, but he refuſed it two days together, and the third day oppreſſed with extremity of hunger, by her ranking and crying voice ſhe made ſignes to her Keeper for other meat, who caſt unto her a cat, which preſently it pulled in pieces and devoured it. The like ſtory unto this we have ſhewed already in the Panther. Generally the nature of this beaſt, is according to the Epithites of it, ſharp, untamed, cruel, and ravenous, never ſo tamed, but ſometimes they return to their former natures ; yet the *Indians* do every year give unto their King tamed Tigers and Panthers, and ſo it cometh to paſs, that ſometimes the Tiger kiſſeth his Keeper as *Seneca* writeth.

In the time of their luſt they are very raging and furious, according to theſe Verſes of *Virgil* :

Per ſylvas tum ſævus aper, tum peſſima Tigris,
Heu male cum Libyæ ſolis erratur in agris.

Their copulation and generation.

They ingender as Lions do, and therefore I marvel how the fable firſt came up, that they were all females & had no males among them, and that the females conceived with young by the Weſt wind. We have ſhewed already in the ſtory of the Dogs, that the *Indian* Dog is engendered of a Tiger and a Dog, and ſo alſo the *Hircanian* Dogs : Whereby it is apparent, that they do not only conceive among themſelves , but alſo in a mingled race. The male is ſeldom taken , becauſe at the ſight of a man he runneth away, and leaveth the female alone with her young ones, for he hath no care of the whelps, and for this occaſion I think that the fables firſt came up that there were no males among the Tigers. The female bringeth forth many at once like a Bitch, which ſhe nouriſheth in her den very carefully, loving them, and defending them like a Lioneſs from the Hunters, whereby ſhe is many times enſnared and taken. It is repoted by *Ælianus*, that when they hear the ſound of Bels and Timbrels , they grow into ſuch a rage and madneſs , that they tear their own fleſh from their backs.

The taking and killing of Tigers.

Plutarch.

Caliſtenes.

For the taking of Tigers, the *Indians* near the River *Ganges* have a certain herb growing like Bugloſs, which they take and preſs the juyce out of it, this they preſerve beſide them, and in ſtill ſilent calm nights, they pour the ſame down at the mouth of the Tigers den, by vertue whereof it is ſaid the Tigers are continually encloſed, not daring to come out over it through ſome ſecret oppoſition in nature, but famiſh and dye, howling in their caves through intolerable hunger. So great is the ſwiftneſs of this beaſt, as we have ſhewed already, that ſome have dreamed it was conceived by the winde. For as the ſwifteſt Horſes, and namely the Horſes of *Dardanus*, are likewiſe fabled to be begotten by the Northern winde, ſo the Tigers by the Weſt winde.

Philoſtratus.

Therefore they are never taken but in defence of their young ones, neither is there any beaſt that liveth upon preying ſo ſwift as they : *Solam Tigrim Indi inſuperabilem eſſe dicunt , quoniam fugiendi celeritate, quæ ventos æquare dicitur, è conſpectu aufugit.* Only the Tiger , the *Indians* ſay can never be conquered, becauſe when he is hunted he runneth away out of ſight as faſt as the winde. For this cauſe they diligently ſeek out the caves and dens of the Tigers where their young ones are lodged, and then upon ſome ſwift Horſes they take and carry them away : when the female Tiger returneth and findeth her den empty, in rage ſhe followeth after them by the foot, whom ſhe quickly overtaketh, by reaſon of her celerity.

The Hunter ſeeing her at hand, caſteth down one of her Whelps: the diſtreſſed angry beaſt knowing that ſhe can carry but one at once, firſt taketh up that in her mouth, without ſetting upon the Hunter, contented with that one, returneth with it to her lodging ; having laid it up ſafe, back again ſhe returned like the wind, to purſue the Hunter for the reſidue, who muſt likewiſe ſet her down another, if he have not got into his ſhip, for except the hunter be near the water ſide and have a ſhip ready, ſhe will fetch them all from him, one by one, or elſe it will coſt him his life : therefore that enterpriſe is undertaken in vain upon the ſwifteſt Horſes in the world, except the waters come betwixt the Hunter and the Tiger : And the manner of this beaſt is, when ſhe ſeeth that her young ones are ſhipped away, and ſhe for ever deprived of ſeeing or having them again, ſhe maketh ſo great lamentation upon the Sea ſhore howling, braying and rancking, that many times ſhe dyeth in the ſame place, but if ſhe recover all her young ones again from the Hunters, ſhe departeth with unſpeakable joy, without taking any revenge for their offered injury.

For this occaſion, the Hunters do deviſe certain round ſpheares of glaſs, wherein they picture their young ones very apparent to be ſeen by the dam, one of theſe they caſt down before her at her approach, ſhe looking upon it, is deluded, and thinketh that her young ones are incloſed therein, and the rather, becauſe through the roundneſs thereof it is apt to rowl and ſtir at every touch, this ſhe driveth along backwards to her den, and there breaketh it with her feet & nails, and ſo ſeeing ſhe that is deceived, returneth back again after the Hunters for her true Whelps; whileſt they in the mean ſeaſon are ſafely harbored in ſome houſe, or elſe gone on ſome ſhipboard. It is reported by *Johannes Ledeſma a Spaniard*, this excellent ſtory of a male and female Tiger. In the Iſland *Dariene*, ſtanding in the Occidental Ocean of the New-found World, ſome eight days ſail from *Hiſpaniola*, it fell out (ſaith he) in the year of our Lord 1514. that the ſaid Iſland was annoyed with two Tigers, a male and a female, for half a year together, ſo that there was no night free, but they loſt ſome of their cattel, either a Horſe, or an Ox, or a Cow, or a Mare, or a Hog, and Swine, and in the time that their young ones did ſuck, it was not ſafe for men to go abroad in the day time, much leſs in the night; but they devoured a man, if they did not firſt of all meet with another beaſt: At length the Countrey thus oppreſſed, neceſſity conſtrained them to deviſe a remedy, and to try ſome means to mitigate their calamities, wherefore they ſought out all the ways and paths of the Tigers to and from their dens, that ſo they might take vengeance upon the raveners for the loſs of ſo much bloud: At the laſt they found a common beaten way, this they cut aſunder and digged deep into a large dungeon: having made the dungeon, they ſtrewed upon the top of it little ſticks and leaves, ſo covering it to diſſemble that which was underneath, then came the heedleſs Tiger that way, and fell down into the ditch upon ſuch ſharp Iron ſtakes, and pointed inſtruments as they had there ſet, with his roaring he filled all the places thereabout, and the Mountain ſounded with the eccho of his roaring voice.

The people came upon him, and caſting great and huge ſtones upon his back killed him, but firſt of all, he broke into a thouſand pieces, both the ſtones, Weapons, and Spears, that were caſt againſt him; and ſo great was his fury, that when he was half dead, and the bloud run out of his body, he terrified the ſtanders by beholding and looking upon him. The male Tiger being thus killed, they followed the footſteps into the Mountains where the female was lodged, and there in her abſence took away two of her young ones, yet afterward changing their mindes, carryed them back again, putting upon them two brazen collers and chains, and making them faſt in the ſame den, that ſo when they had ſucked till they were greater, they might be with pleaſure and ſafety conveighed into *Spain*. At laſt when the time appointed was come that they ſhould be taken forth to be ſent away, the people went to the den, wherein they found neither young nor old, but their collers faſtened in the ſame place that they had left them, whereby it was conceived that the envious mother had killed and torn her young ones in pieces, rather then they ſhould fall into the hands of the hunters; ſo that this beaſtly love of hers, ended in horrible cruelty, and for this occaſion is it that *Medea* thus ſpeaketh in *Ovid*;

Hoc ego ſi patiar, tum me de Tigride natam,
Tum ferrum & ſcopulos geſtare in cor de videbor.

And for this cauſe it was faigned, not without ſingular wit by the Poets, that ſuch perſons as ſatisfie the fulneſs of their wrath in extremity of revenge, are transformed into Tigers. The ſame Poet compareth the wrath of *Perſeus* ſtanding betwixt two advantages unto a Tiger betwixt two preys or herds of cattel, being in doubt whether of them to devour, in this manner;

Tigris ut auditis diverſa valle duorum,
Extimulata fame, mugitibus armentotum,
Neſcit utro potius ruat, & ruere ardet utroq;
Sic dubius Perſeus dextra lævave feratur.

In ancient times theſe Tigers were dedicated to *Bacchus*, as all ſpotted beaſts were, and that the ſaid Tigers did draw his Charriot whileſt he did hold the rains; and therefore *Ovid* ſaith thus;

Bacchus in curru quem ſummum texerat uvis,
Tigribus adjunctis aurea lora dabat.

And *Horace* in this manner;

Hac te merentem Bacche pater tuæ
Vexere Tigres indocili jugum collo trahentes.

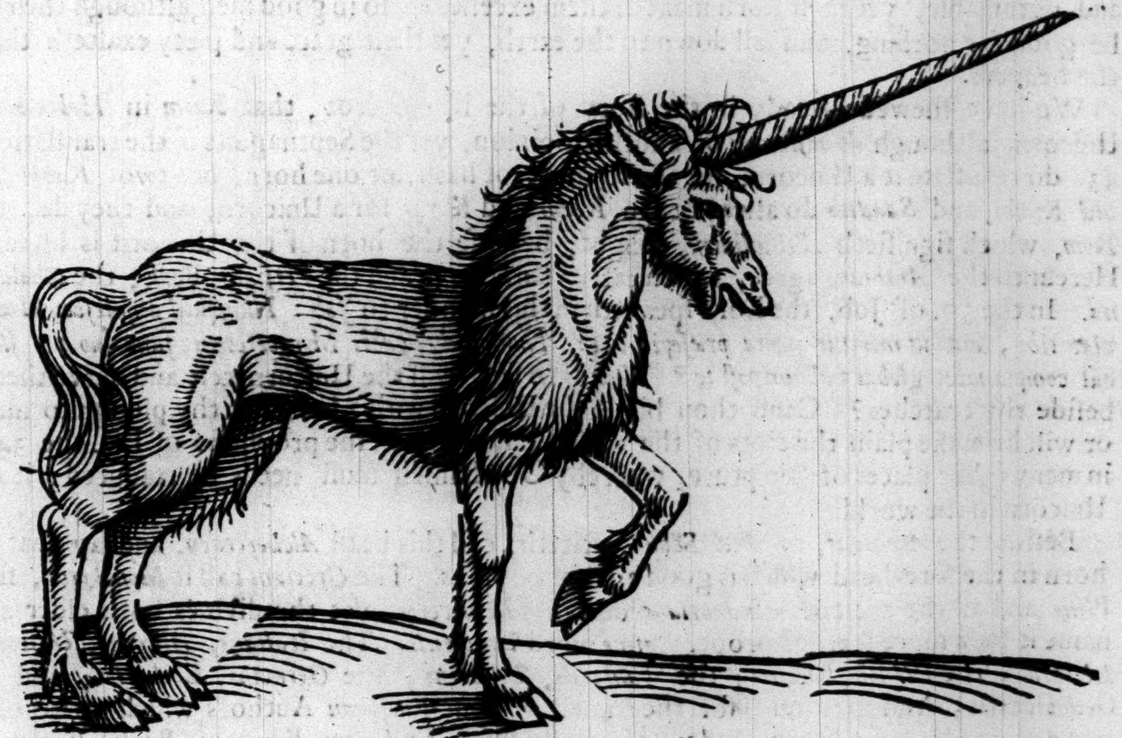
Tigers, notwithſtanding their great mindes and untamable wildeneſs, have been taken, and brought in publike ſpectacle by men, and the firſt of all that ever brought them to *Rome*, was *Auguſtus*, when *Quintus Tubero*, and *Fabius Maximus* were Conſuls, at the dedication of the Theater of *Marcelus*; the which Tigers were ſent unto him out of *India*, for preſents (as *Dion* writeth.) Afterwards *Claudius* preſented four to the people; and laſtly *Heliogabalus* cauſed his chariots to be drawn with Tigers, whereunto *Martial* alluded when he ſaid;

Picto quod juga delicata collo,
Pardus ſuſtinet, improbeq; Tigres,
Indulgent patientiam flagello.

Ledeſma of whom we ſpake before affirmeth, that he did eat of the Tigers fleſh that was taken in the ditch in the Iſland *Darienc*, and that the fleſh thereof was nothing inferior to the fleſh of an Ox, but the *Indians* are forbidden by the laws of their Countrey, to eat any part of the Tigers fleſh, except the hanches. And thus I will conclude this ſtory of the Tiger, with the Epigram that *Martial* made of a Tiger, devouring of a Lion. Eating of Tigers.

Lambere ſecuri dextram & conſueta magiſtri,
Tibris ab Hyrcano gloria rara jugo,
Sava ferum rabido laceravit dente Leonem:
Res nova, non ullis cognita temporibus.
Auſa eſt tale nihil ſylvis dum vixit in altis:
Poſtquam inter nos eſt, plus feritatis habet.

Of the UNICORN.



WE are now come to the hiſtory of a Beaſt, whereof divers people in every age of the world have made great queſtion, becauſe of the rare vertues thereof; therefore it behoveth us to uſe ſome diligence in comparing together the ſeveral teſtimonies that are ſpoken of this beaſt, for the better ſatisfaction of ſuch as are now alive, and clearing of the point for them that ſhall be born hereafter, whether there be a Unicorn; for that is the main queſtion to be reſolved.

Now the vertues of the horn, of which we will make a particular diſcourſe by it ſelf, have been the occaſion of this queſtion, and that which doth give the moſt evident teſtimony unto all men that have ever ſeen it or uſed it, hath bred all the contention; and if there had not been diſcloſed in it any extraordinary powers and vertues, we ſhould as eaſily believe that there was a Unicorn in the world, as we do believe there is an Elephant although not bred in *Europe*. To begin therefore with this diſcourſe, by the Unicorn we do underſtand a peculiar beaſt, which hath naturally but one horn, and that a very rich one, that groweth out of the middle of the forehead, for we have ſhewed in other parts of the hiſtory, that there are divers beaſts, that have but one horn, and namely ſome Oxen in *India* have but one horn, and ſome have three, and whole hoofs. Likewiſe the Bulls of *Aonia*, are ſaid to have whole hoofs and one horn, growing out of the middle of their fore-heads. Many beaſts with horns, improperly called Unicorns. *Solinus.* *Ælianus.* *Oppianus.*

Likewiſe in the City *Zeila* of *Æthiopia*, there are Kine of a purple colour, as *Ludovicus Romanus* writeth, which have but one horn growing out of their heads, and that turneth up towards their backs. *Cæſar* was of opinion that the Elk had but one horn, but we have ſhewed the contrary. It is ſaid that *Pericles* had a Ram with one horn, but that was bred by way of prodigy, and not naturally. *Simeon Sethi* writeth, that the Musk-cat hath alſo one horn growing out of the fore-head, but we have ſhewed already that no man is of that opinion beſide himſelf. *Ælianus* writeth, that there be Birds in *Æthiopia* having one horn on their fore-heads, and therefore are called *Unicornes*: and *Albertus* ſaith, there is a fiſh called *Monoceros*, and hath alſo one horn. Now our diſcourſe of the Unicorn is of none of theſe beaſts, for there is not any vertue attributed to their horns, Whether there be any Unicorns in the World.

and therefore the vulgar ſort of Infidel people which ſcarſely believe any herb but ſuch as they ſee in their own Gardens, or any beaſt but ſuch as is in their own flocks, or any knowledge but ſuch as is bred in their own brains, or any birds which are not hatched in their own neſts, have never made queſtion of theſe, but of the true Unicorn, whereof there were more proofs in the world, becauſe of the nobleneſs of his horn, they have ever been in doubt: by which diſtraction it appeareth unto me that there is ſome ſecret enemy in the inward degenerate nature of man, which continually blindeth the eyes of God his people, from beholding and believing the greatneſs of God his works.

But to the purpoſe, that there is ſuch a beaſt, the Scripture it ſelf witneſſeth, for *David* thus ſpeaketh in the 92. Pſalm: *Et erigetur cornu meum tanquam Monocerotis*. That is, my horn ſhall be lifted up like the horn of a Unicorn; whereupon all Divines that ever wrote, have not only collected that there is a Unicorn, but alſo affirm the ſimilitude to be betwixt the Kingdom of *David* and the horn of the Unicorn, that as the horn of the Unicorn is wholeſome to all beaſts and creatures, ſo ſhould the Kingdom of *David* be in the generation of Chriſt; And do we think that *David* would compare the vertue of his Kingdom, and the powerful redemption of the world unto a thing that is not, or is uncertain or fantaſtical, God forbid that ever any man ſhould ſo deſpight the holy Ghoſt. For this cauſe alſo we read in *Suidas*, that good men which worſhip God and follow his laws are compared to Unicorns, whoſe greater parts as their whole bodies are unprofitable and untamable, yet their horn maketh them excellent: ſo in good men, although their fleſhy parts be good for nothing, and fall down to the earth, yet their grace and piety exalteth their ſouls to the heavens.

The Hebrew names in Scripture prove Unicorns.

We have ſhewed already in the ſtory of the Rhinocerot, that *Reem* in *Hebrew* ſignifieth a Unicorn, although *Munſter* be of another opinion, yet the Septuagints in the tranſlation of Deut. 33. do tranſlate it a Unicorn, for the Rhinocerot hath not one horn, but two. *Rabbi Solomon*, *David Kimbi*, and *Saadius* do always take *Reem* and *Karas* for a Unicorn, and they derive *Reem* from *Rom*, which ſignifieth *Altitudinem*, height, becauſe the horn of the Unicorn is lifted up on high. Hereunto the *Arabians* agree, which call it *Barkeron*; and the *Perſians*, *Bark*; the *Chaldeans*, *Remana*. In the 39. of Job, the Lord ſpeaketh in this manner to *Job*: *Numquid acquieſcet Monoceros ut ſerviat tibi, aut ut moretur juxta præſepia tua? Numquid ligabis Monocerotem fune ſuo pro ſulco faciendo, aut complanabit glebas vallium poſt te?* That is to ſay, will the Unicorn reſt and ſerve thee, or tarry beſide thy cratches? Canſt thou binde the Unicorn with a halter to thy plough to make furrows, or will he make plain the clots of the Vallies? Likewiſe in the propheſie of Eſa. the 34. chap. and in many other places of Scripture, whereby God himſelf muſt needs be traduced, if there be no Unicorn in the world.

The kindes of Unicorns.

Countries of Unicorns.

Beſides the *Arabians*, as *And. Bellun.* writeth, call this beaſt *Alcherceden*, and ſay that it hath one horn in the fore-head which is good againſt poyſons. The *Grecians* call it *Monokeros*, from whence *Pliny* and all the ancient *Grammarians* do call it *Monoceros*, yet the divines both elder and later do name it by a more learned proper *Latine* word *Unicornis*. The *Italians*, *Alicorno*, *Unicorno*, *Liocorno*, *Leocorno*; the *French*, *Licorne*; the *Spaniards*, *Unicorno*; the *Germans*, *Einhorne*; and the *Ilyrians*, *Gednorozecz*: And thus much for the name. All our *European* Authors which write of beaſts, do make of the Unicorn divers kindes, eſpecially *Pliny*, *Ludovicus Romanus*, *Paulus Venetus*, *Nicholaus Venetus*, *Æneas Sylvius*, *Albertus Magnus*, out of whoſe words we muſt gather the beſt deſcription that we can of the Unicorn. The *Arcean Indians* (ſaith *Pliny*) do hunt a certain wilde beaſt which is very curſt, untamable, having one horn, which in the head reſembleth a Hart, in the feet an Elephant, in the tail a Boar, and in the reſidue of the body a Horſe; the horn he ſaith, is about two cubits long, and the voice like the lowing of an Ox, ſomewhat more ſhrill, and they deny that this beaſt is ever taken alive. *Ælianus* writeth hereof in this manner, there are (ſaith he) certain Mountains in the midſt of *India*, unto the which the paſſage is very difficult, where are abundance of wilde beaſts, and among other Unicorns, which the *Indians* call *Cartazonons*, who in their ripe age are as big as a Horſe, and their mane and hairs are yellow, excelling in the celerity of their feet and bodies, having feet cloven like an Elephants, the tail of a Boar, and one black horn growing out betwixt their eye-brows, not ſmooth, but rough all over with wrinckles, and the ſame groweth to a moſt ſharp point, theſe things (ſaith *Ælianus*) by comparing of whoſe words with *Pliny*, it is apparent they deſcribe in theſe words but one and the ſame beaſt, and ſo alſo doth *Phyles*; whereby I gather, that it is no other beaſt then the wilde Aſs, or at the leaſt the wilde Aſs cometh neareſt to the Unicorn of all others, for they agree in theſe things; firſt, in that both of them have one horn in the middle of the fore-head; ſecondly, in that both of them are bred in *India*; thirdly, in that they are both about the bigneſs of a Horſe; fourthly, in their celerity and ſolitary life; fifthly and laſtly, in their exceeding ſtrength and untamable natures; but herein they differ both in their feet and colours, for the feet of the wilde Aſſes are whole and not cloven like the Unicorns, and their colour white in their body, and purple on their head; and *Ælianus* ſaith, that the horn alſo differeth in colour from the Unicorns, for the middle of it is only black, the root of it white, and the top of it purple, which *Bellonius* doth interpret, that the ſuperficies or upper face of the horn is all purple, the inner part white, and the inward part or middle black; but of this *Indian* wilde Aſs we have ſpoken already, and therefore I will adde nothing in this place but the words of *Philoſtratus* in the life of *Apollonius*, who writeth in this manner;

There are many wilde Aſſes which are taken in the Fens, near the River *Hiphaſis*, in whoſe fore-head there is one horn, wherewith they fight like Buls, and the *Indians* of that horn make pots, affirming that whoſoever drinketh in one of thoſe pots, ſhall never take diſeaſe that day, and if they be wounded, ſhall feel no pain, or ſafely paſs through the fire without burning, nor yet be poyſoned in their drink, and therefore ſuch cups are only in the poſſeſſion of their Kings, neither is it lawful for any man except the King, to hunt that Beaſt, and therefore they ſay that *Apollonius* looked upon one of thoſe Beaſts, and conſidered his nature with ſingular admiration.

Now there was one *Damis* in his company, who asked him whether he did believe that the vulgar report of the Unicorns horns were true or no, *Apollonius* made this anſwer: *Adbibeo ſi hujus regionis immortalem regem eſſe intellexero, qui enim mihi aut alteri cuiquam poculum ita ſalubre poteſt dare, nonne veriſimile eſt ipſum quotidie illo uti, & ex eo cornu frequenter vel ad crapulam uſq; bibere, nemo enim ut puto illum calumniabitur qui in tali poculo etiam inebrietur.* That is to ſay, I would believe that report, if I found in this Countrey a King that were immortal and could never dye, for if a man would give me ſuch a cup, or any other man, do not you think that I would believe he drunk in the ſame cup? and who would blame a man if he drunk in ſuch a cup till he were drunk? for it were lawful to uſe that horn unto ſurfeiting: whereby we may gather the minde of that wiſe man concerning the Aſſes horn, and the Unicorns; namely, that they may give one ſome eaſe againſt accidental diſeaſes, although they cannot prolong a mans life the ſpace of one day: theſe things ſaid he. There be Beaſts (ſaith *Ariſtotle*) as the Oryx and *Indian* Aſs, which are armed with one horn, and the cloven footed Oryx is no other then the whole footed Aſs, for in the middle of their fore-head they have one horn, by which both ſides of their head are armed, *Cum medium pariter commune utriq; extremo ſit*, Becauſe the middle is equally diſtant from both the extremes; and the hoof of this Beaſt may well be ſaid to be cloven and whole, becauſe the horn is of the ſubſtance of the hoof, and the hoof of the ſubſtance of the horn, and therefore the horn is whole, and the hoof cloven; for the cleaving either of the horn or of the hoof cometh through the defect of nature, and therefore God hath given to Horſes and Aſſes whole hoofs, becauſe there is greateſt uſe of their legs, but unto Unicorns a whole and entire horn, that as the eaſe of men is procured by the helps of Horſes, ſo the health of them is procured by the horn of the Unicorn. Theſe things (ſaith *Ariſtotle.*) And *Strabo* alſo writeth, that there are Horſes in *India*, which have Harts heads, with one horn, of which horn their Princes make cups, out of which they drink their drink againſt poyſon: and therefore by this which hath been ſaid it appeareth unto me, that either the *Indian* Aſs is a Unicorn, or differeth from it only in colour; and the objection of the hoofs is anſwered by *Ariſtotle*. Unto this diſcourſe I will adde the travails of *Ludovicus Roman*, wherein he ſaw two Unicorns at *Mecba* in *Arabia*, where *Mahomets* Temple and Sepulcher is. There are preſerved (ſaith he) within the walls and Cloyſters of that Temple two Unicorns, which by way of miracle they bring forth to the people, and truly not without cauſe, for the ſight is worthy admiration.

The uſe of a Unicorns horn.

Now their deſcription is on this ſort: One of them and the elder was about the ſtature of a Colt of two years and a half old, having a horn growing out of his fore-head of two cubits length, and the other was much leſs, for it was but a year old, and like a Colt of that age, whoſe horn was ſome four ſpans long, or thereabouts. The colour of them was like a Weaſeled coloured Horſe, the head like the head of a Hart, the neck not long, and the mane growing all on one ſide. The legs ſlender and lean, like the legs of a Hinde, the hoofs of the fore-feet were cloven like a Goats feet, and the hinder-legs are all hairy and ſhaggy with the outſide; the Beaſts although they were wilde, yet by Art or ſuperſtition, they ſeemed to be tempered with no great wildeneſs; it was ſaid that the King of *Æthiopia*, did ſend them to the *Sultan* of *Mecba*, with whom he is conſtrained to obſerve perpetual amity. Now theſe Unicorns are of another kinde, then the Unicorns of *Pliny* and *Ælianus*, becauſe their Unicorn hath a whole hoof, and this cloven, but this objection was anſwered before: and although *Pliny* and *Ariſtotle* do acknowledge no other Unicorn then the Oryx, whoſe horn is black, as hard as Iron, and ſharp at the point, yet it is clear that there is another Unicorn beſide that.

Now *Paulus Venetus* ſaith, that in the Kingdom of *Baſman*, which is ſubject to the great *Cham*, that there are Unicorns ſomewhat leſſer then Elephants, having hair like Oxen, heads like Boars, feet like Elephants, one horn in the middle of their fore-heads, and a ſharp thorny tongue, wherewith they deſtroy both man and beaſt: and beſides he addeth, that they muddle in the dirt like Swine. Now if it were not for the horn in the middle of the fore-head, I would take this Beaſt for a Rhinocerot, but becauſe the horn of the Rhinocerot groweth out of the noſe, I deem this to be a ſecond kinde of Unicorn; for there is no man that ſhall read this ſtory, but will think that the learned Author had reaſon to diſcern betwixt the eyes and the fore-head, and therefore there can be no exception taken to my obſervation.

Nicolaus Venetus an Earl ſaith, that in *Maſinum* or *Serica*, that is, the Mountains betwixt *India* and *Cathay*, (as *Æneas Sylvius* writeth) there is a certain Beaſt having a Swines head, an Oxes tail, the body of an Elephant (whom it doth not only equal in ſtature, but alſo it liveth in continual variance with them) and one horn in the fore-head: now this if the Reader ſhall think it different from the former, I do make the third kinde of the Unicorn; and I truſt that there is no wiſe man that will be offended at it: for as we have ſhewed already in many ſtories, that ſundry Beaſts have not only their diviſions, but ſub-diviſions, into ſub-alternal kindes, as many Dogs, many Deer, many Horſes, many Mice, many Panthers, and ſuch like, why ſhould there not alſo be many Unicorns? And if the Reader be not pleaſed with this, let him either ſhew me better reaſon, (which I know he ſhall never be able to do) or elſe be ſilent, leſt the uttering of his diſlike, bewray envy and ignorance.

Other diſcourſes of the horn.

Now although the parts of the Unicorn be in ſome meaſure deſcribed, and alſo their Countries, namely, *India* and *Æthiopia*, yet for as much as all is not ſaid as may be ſaid, I will add the reſidue in this place: And firſt of all there are two Kingdoms in *India*, one called *Niem*, and the other *Lamber* or *Lambri*; both theſe are ſtored with Unicorns: And *Aloiſius Cadamuſtus* in his fifty Chapter of his Book of Navigation, writeth that there is a certain Region of the New-found World, wherein are found live Unicorns; and toward the Eaſt, and South, under the Equinoctial there is a living creature (with one horn which is crooked, and not great) having the head of a Dragon, and a beard upon his chin, his neck long, and ſtretched out like a Serpents, the reſidue of his body like to a Harts, ſaving that his feet, colour, and mouth are like a Lions: and this alſo (if not a fable or rather a Monſter) may be a fourth kinde of Unicorn; and concerning the horns of Unicorns, now we muſt perform our promiſe, which is to relate the true hiſtory of them, as it is found in the beſt Writers. This therefore growing out of the fore-head betwixt the eye-lids is neither light nor hollow, nor yet ſmooth like other horns, but hard as Iron, rough as any file, revolved into many plights, ſharper than any dart, ſtraight and not crooked, and every where black except at the point.

Paules.

There are two of theſe at *Venice* in the Treaſury of S. *Marks* Church, as *Braſavolus* writeth, one at *Argentarat*, which is wreathed about with divers Spires. There are alſo two in the Treaſury of the King of *Polonia*, all of them as long as a man in his ſtature. In the year 1520. there was found the horn of a Unicorn in the River *Arrula*, near *Bruga* in *Helvetia*, the upper face or outſide whereof was a dark yellow, it was two cubits in length, but had upon it no plights or wreathings. It was very odoriferous (eſpecially when any part of it was ſet on fire) ſo that it ſmelled like musk: aſſoon as it was found, it was carryed to a Nunnery called *Campus regius*, but afterwards by the Governor of *Helvetia* it was recovered back again, becauſe it was found within his territory. Now the vertues of this horn are already recited before, and yet I will for the better juſtifying of that which I have ſaid concerning the Unicorns horn, add the teſtimony of our learned men which did write thereof to *Geſner*, whoſe letters according as I finde them recorded in his work, ſo I have here inſerted and tranſlated word for word. And firſt of all the anſwer of *Nicholas Gerbelius* unto his Epiſtle, concerning the Unicorns horn at *Argentoratum*, is this which followeth, for, ſaith he, The horn which thoſe Noblemen have in the ſecrets of the great Temple, I have often ſeen and handled with my hands; It is of the length of a tall man, if ſo be that you ſhall thereunto add the point thereof: for there was a certain evil diſpoſed perſon amongſt them, who had learned (I know not of whom) that the point or top of the ſame horn would be a preſent remedy both againſt all poyſon, and alſo againſt the Plague or Peſtilence: Wherefore that ſacrilegious thief plucked off the higher part or top from the reſidue, being in length three or four fingers.

For which wicked offence, both he himſelf was caſt out of that company, and not any ever afterwards of that family might be received into this ſociety by an Ordinance gravely and maturely ratified. This pulling off the top brought a notable deformity to that moſt ſplendant gift. The whole horn from that which ſticketh to the fore-head of this beaſt, even unto the top of the horn is altogether firm or ſolid, not gaping with chops, chinks or creviſes, with a little greater thickneſs then a tile is uſually amongſt us. For I have oftentimes comprehended almoſt the whole horn in my right hand. From the root unto the point it is even as wax candles are rowled together moſt elegantly ſevered and raiſed up in little lines.

The weight of this horn is of ſo great a maſſineſs, that a man would hardly believe it, and it hath been often wondred at, that a beaſt of ſo little a ſtature could bear ſo heavy and weighty a burden. I could never ſmell any ſweetneſs at all therein. The colour thereof is like unto old Ivory, in the midſt betwixt white and yellow. But you ſhall never have a better pattern of this, then where it is ſold in little pieces or fragments by the Oylmen. For the colour of our horn is life unto them. But by whom this was given unto that ſame Temple I am altogether ignorant.

Gerbelius. A ſecond Hiſtory of a Unicorns horn.

Another certain friend of mine, being a man worthy to be believed, declared unto me, that he ſaw at *Paris* with the Chancellor, being Lord of *Pratus*, a piece of a Unicorns horn, to the quantity of a cubit, wreathed in tops or ſpires, about the thickneſs of an indifferent ſtaffe (the compaſs thereof extending to the quantity of ſix fingers) being within and without of a muddy colour, with a ſolid ſubſtance, the fragments whereof would boil in the Wine, although they were never burned, having very little or no ſmell at all therein.

A third Hiſtory of a Unicorns horn.

When *Joannes Ferrerius* of *Piemont* had read theſe things, he wrote unto me, that in the Temple of *Dennis*, near unto *Paris*, there was a Unicorns horn ſix foot long, wherein all thoſe things which are written by *Gerbelius* in our Chronicles were verified, both the weight and the colour: but that in bigneſs it exceeded the horn at the City of *Argentorate*, being alſo hollow almoſt a foot from that part which ſticketh unto the fore-head of the Beaſt, this he ſaw himſelf in the Temple of S. *Dennis*, and handled the horn with his hands as long as he would. I hear that in the former year (which was from the year of our Lord 1553.) when *Vercella* was overthrown by the *French*, there was brought from that treaſure unto the King of *France*, a very great Unicorns horn, the price whereof was valued at fourſcore thouſand Duckets. *Paulus Poeius* deſcribeth an Unicorn in this manner; That he is a Beaſt, in ſhape much like a young Horſe, of a duſty colour, with a maned neck, a hairy beard, and a fore-head armed with a horn of the quantity of two cubits, being ſeparated with pale tops or ſpires, which is reported by the ſmoothneſs and Ivory whiteneſs thereof, to have the wonderful power of diſſolving and ſpeedy expelling of all venom or poyſon whatſoever.

Another deſcription of the Unicorn.

For his horn being put into the water, driveth away the poyſon, that he may drink without harm, if any venomous Beaſt ſhall drink therein before him. This cannot be taken from the Beaſt being alive, foraſmuch as he cannot poſſibly be taken by any deceit: yet it is uſually ſeen that the horn is found in the Deſerts, as it happeneth in Harts, who caſt off their old horn through the inconveniences of old age, which they leave unto the Hunters, Nature renewing another unto them.

The horn of this Beaſt being put upon the Table of Kings, and ſet amongſt their junkets and bankets, doth bewray the venom if there be any ſuch therein, by a certain ſweat which cometh over it. Concerning theſe horns, there were two ſeen, which were two cubits in length, of the thickneſs of a mans arm, the firſt at *Venice*, which the Senate afterwards ſent for a gift unto *Solyman* the *Turkiſh* Emperour: the other being almoſt of the ſame quantity, and placed in a ſilver pillar, with a ſhort or cutted point, which *Clement* the Pope or Biſhop of *Rome*, being come unto *Marſſels*, brought unto *Francis* the King for an excellent gift. Furthermore concerning the vertue of ſuch a gift, I will not ſpeak more of this Beaſt, then that which divulged fame doth perſwade the believers.

Petrus Bellonius writeth, that he knew the tooth of ſome certain Beaſt in time paſt, ſold for the horn of a Unicorn, (what Beaſt may be ſignified by this ſpeech I know not, neither any of the *French* men which do live amongſt us) and ſo a ſmall piece of the ſame being adulterated, ſold ſometimes for 300. Duckets. But if the horn ſhall be true and not counterfeit, it doth notwithſtanding ſeem to be of that creature which the Ancients called by the name of a Unicorn, eſpecially *Ælianus*, who only aſcribeth to the ſame this wonderful force againſt poyſon and moſt grievous diſeaſes, for he maketh not this horn white, as ours doth ſeem, but outwardly red, inwardly white, and in the midſt or ſecreteſt part only black.

Of adulterated Unicorns horns.

But it cannot be denyed, that this our Unicorns horn was taken from ſome living wilde Beaſt. For there are found in *Europe*, to the number of twenty of theſe horns pure, and ſo many broken; two of the which are ſhown in the treaſury of Saint *Marks* Church at *Venice*, (I heard that the other was of late ſent unto the Emperor of the *Turks* for a gift by the *Venetians*) both of them about the length of ſix cubits: the one part which is loweſt being thicker, and the other thinner, that which is thicker, exceedeth not the thickneſs of three inches juſt, which is alſo attributed unto the horn of the *Indian* Aſs, but the other notes of the ſame are wanting.

I do alſo know, that which the King of *England* poſſeſſeth to be wreathed in ſpires, even as that accounted in the Church of S.*Dennis*, then which they ſuppoſe none greater in the world, and I never ſaw any thing in any creatures more worthy praiſe then this horn. The ſubſtance is made by nature, not Art, wherein all the marks are found which the true horn requireth. And forſomuch as it is ſomewhat hollow (about the meaſure of a foot which goeth out of the head, and the bone growing from the ſame is comprehended) I conjecture that it never falleth, as neither the horns of a Musk-cat, a wilde Goat, and an Ibex do: but the horns of theſe beaſts do yearly fall off, namely, the Buck, the Hart, Field-goat, and Camelopardal. It is of ſo great a length, that the talleſt man can ſcarſely touch the top thereof, for it doth fully equal ſeven great feet. It weigheth thirteen pounds with their aſſize, being only weighed by the gueſs of the hand, it ſeemeth much heavier. The figure doth plainly ſignifie a wax candle, (being folded and wreathed within it ſelf) being far more thicker from one part, and making it ſelf by little and little leſs towards the point, the thickeſt part thereof cannot be ſhut within ones hand, it is the compaſs of five fingers, by the circumference, if it be meaſured with a thread, it is three fingers and a ſpan.

That part which is next unto the head hath no ſharpneſs, the other are of a poliſhed ſmoothneſs. The ſplents of the ſpire are ſmooth and not deep, being for the moſt part like unto the wreathing turnings of Snails, or the revolutions or windings of Wood-bine about any Wood. But they proceed from the right hand toward the left, from the beginning of the horn, even unto the very end. The colour is not altogether white, being a long time ſomewhat obſcured. But by the weight it is an eaſie thing to conjecture, that this Beaſt which can bear ſo great burden in his head, in the quantity of his body can be little leſs then a great Ox.

There are found oftentimes in *Polonia* certain horns which ſome men gueſs to be of the Unicorns, by a double argument. Firſt, becauſe they are found ſeveral, never by twains which as yet is heard, although ſometimes they may be found with the skull and bones of the reſt of the body: furthermore, becauſe their ſtrength or vertue is approved againſt great and moſt grievous diſeaſes: concerning which thing *Antonius Schnebergerus*, a Phyſitian of great learning amongſt the *Sarmatians*, and an excellent obſerver of nature, writ unto me ſome five year paſt, to ſee ſome of theſe horns, having ſent them by the labour of my very good friend *Joachinnus Rhæticus*, a moſt excellent Phyſitian in *Sarmatia*, and incomparable in the Mathematick Arts in this age.

Of the Unicorns horns found in *Polonia*.

The firſt of theſe horns (ſaith he) I ſaw being of the length of my fadom, with a duskiſh or darkiſh colour: the point thereof being exceeding ſharp and ſmooth. The compaſs about the root of the horn did exceed ſix ſpans. The outſide was plain, with no turnings of ſpires: the ſubſtance eaſie to be crumed, the figure crooked, the colour exceeding white within, which if it be drunk in Wine, doth draw over it ſelf a dark colour. Eight ſuch diviſions were joyned to the ſame, as you ſhall ſee in the greater part which I ſend, but that part is not of the horn, but either the entrance of the palat, or ſome other things as I conjecture.

This horn was found under the earth, (not deeper then a foot, in a ſolitary and high place, as between two hils, through which a River runneth) by Countrey-men that were digging to lay the foundation of a houſe. But the horn was ſmitten with an Ax, and ſevered into very ſmall pieces: but that noble and excellent man *Joannes Frikaſz* (in whoſe field the horn was found, being diſtant from *Cracovia* two miles) by all diligence he could, leſt that the ſmall pieces ſhould be caſt abroad, took deliberate heed, that they ſhould be taken out of the earth. From the root to the top it was all round and ſmooth, but touching it with ones tongue, it cleaveth faſt unto it, the tooth was as big as a man could gripe in his hand, being in the upper or outward part bony or hollow within, white in the middle, and toward the end ſomewhat reddiſh.

But there was found all the Beaſt, as by the greatneſs of his bones might eaſily be perceived, being bigger in quantity then a Horſe. It is moſt certain that it was a four-footed Beaſt, by the bones of the ſhoulders, thighs and ribs. But if this horn were the tooth of an Elephant, as ſome do ſuppoſe, you would marvail why two (which I have heard) were never found together. But the teeth or rather horns of Elephants are neither ſo crooked that they might come almoſt to half a circle as they did. The ſtrength of this horn a penny weight thereof being put in Wine or water of Borage, healeth old Fevers, as alſo tertian or quartern Agues of three years continuance, and cureth many diſeaſes in mens bodies, as aſſwaging the pain of the belly, and making of thoſe to vomit, who can by no means eaſe their ſtomachs. Hitherto ſhall ſuffice to have ſpoken concerning one of thoſe four horns which I ſaw. The other was like unto this, but leſs pure; for the colour was outwardly moſt black, inwardly moſt white, being found in the River. The third, and fourth moſt hard, ſo that a man would think it were by the touching thereof ſtone or iron, being ſolid even unto the point, for I have not ſeen them wholly, but the part of one, to the length of a cubit; of the other, to the length of half a cubit, with a dark colour, being almoſt of the ſame thickneſs as the two former: But foraſmuch as the two former have no rifts or chinks in them, theſe have by their longitude, being like herbs bending or wreathing in their ſtalks.

There was another found in a certain field, ſo much appearing out of the earth, that the rude or Countrey ſort did think it to be ſome pile or ſtake. Many alſo are cured and freed from ſhaking Feavers by the medicinal force of theſe, the cauſe whereof I ſuppoſe to be this, becauſe the former are ſofter, for as much as one of them will ly in the water for ſo long a time, but the other under the earth being ſcarſe well hid. I afterwards ſaw a fifth like unto the firſt, none of them being ſtraight or direct up, but alſo crooked, ſome almoſt unto a half circle: Hitherto *Schnebergerus*, who alſo addeth this: That there are more of theſe to be found in *Polonia*, and therefore for the moſt part to be contemned.

There are moreover found in *Helvetia* ſome of theſe horns: one in the River *Arula* againſt the Town of *Bruga*, the other in the laſt year, in the River of *Birſa*, but it was broken, even as the third with that famous Earl of the *Cymbrians*, *William Warner* in a Tower near unto the City *Ranavit*, who gave unto *Geſner* a good piece thereof, who found another piece as he was a fiſhing at *Birſa* in the River. And it is no great marvail that they are found there, where through length of time they are broken into ſmall pieces, and carryed by the force of the waters into divers places.

But it is moſt diligently to be obſerved, whether they are found in the earth, as alſo to be known whether that great horn be of this beaſt, which hangs alone in the great Temple at *Argentaur*, by the pillar, for it hath hanged there many years before, as now it appeareth, for that doth plainly ſeem the ſame magnitude, thickneſs, and figure which *Schnebergerus* hath deſcribed in his own horn, that we have allowed before for wilde Oxen. The Ancients have attributed ſingular horns to the Unicorn, whom ſome have cald by other names as it is ſaid: and furthermore to the Oryx (a wilde Beaſt unknown in our age except I be deceived) which *Ariſtotle* and *Pliny* call a Unicorn, *Ælianus* a *Quadrucorn*. *Oppianus* doth not expreſs it, but he ſeemeth to make it a two horned Beaſt. *Simon Sethi* doth alſo write, that the Musk-cat or Goat which bringeth forth Musk, hath one horn. Certain later writers (as *Scaliger* reporteth) ſay, that there is a certain Ox in *Ethiopia* which hath one horn coming out in the midſt of his fore-head, greater then the length of a foot, bending upwards, the point being wreathed overthwart, and they have red hair, whereby we gather that the horn of all Unicorns is not pure. But the reaſon why theſe horns are more found in *Polonia*, then in any other place, I cannot well gueſs, whether from thence we ſhall ſuſpect them to be of certain *Uries*, which at this day abide in the Woods of *Sarmatia*; in times paſt, there were many more, which have lived both in greater and larger Woods, neither were they killed with ſo often hunting: ſome whereof it is moſt like have come to great age, as appeareth by their great and ſtately horns, which things we leave to be conſidered of others. I ſuppoſe that the Apothecaries never have the true horn of a Unicorn, but that ſome do ſell a kinde of falſe adulterated Horn, other the fragments of this great and unknown horn, of which we have ſpoken, and not only of the horn, but alſo of the bones of the head; ſome of which are ſo affected by longinquity of time, that you may take a threefold ſubſtance in them, although it be broken by a certain diſtance, one being for the moſt part whitiſh and pale, the other whiter and ſofter, the third ſtony and moſt white.

I hear that in the new Iſlands there was a horn bought in the name of a Unicorns horn, being much praiſed for expelling of poyſon: which what it is I have not as yet examined, but it is to be inquired, whether it be Rhinocerots or not, for both the ancient and late Writers do mingle this with the Unicorn. I do verily conjecture that the ſame ſtrength is pertinent to both the Horns.

And thus much ſhall ſuffice concerning the true Unicorns horn, and the Vertues ariſing therefrom. In this place now we will proceed to the reſidue of the hiſtory, reſerving other uſes of this horn to the proper medicines.

The natural properties of Unicorns.

Theſe beaſts are very ſwift, and their legs have no Articles. They keep for the moſt part in the Deſerts, and live ſolitary in the tops of the Mountains. There was nothing more horrible then the voice or braying of it, for the voyce is ſtrained above meaſure. It fighteth both with the mouth and with the heels, with the mouth biting like a Lion, and with the heels kicking like a Horſe. It is beaſt of an untamable nature, and therefore the Lord himſelf in *Job* ſaith, that he cannot be tyed with any halter, nor yet accuſtomed to any cratch or ſtable. He feareth not Iron nor any Iron inſtrument, (as *Iſidorus* writeth) and that which is moſt ſtrange of all other, it fighteth with his own kinde, yea even with the females unto death, except when it burneth in luſt for procreation; but unto ſtranger-beaſts, with whom he hath no affinity in nature, he is more ſociable and familiar, delighting in their company when they come willingly unto him, never riſing againſt them, but proud of their dependence and retinue, keepeth with them all quarters of league and truce, but with his female, when once his fleſh is tickled with luſt, he groweth tame, gregal and loving, and ſo continueth till ſhe is filled and great with young, and then returneth to his former hoſtility. He is an enemy to the Lions, wherefore aſſoon as ever a Lion ſeeth a Unicorn, he runneth to a tree for ſuccour, that ſo when the Unicorn maketh force at him, he may not only avoid his horn, but alſo deſtroy him; for the Unicorn in the ſwiftneſs of his courſe runneth againſt the tree, wherein his ſharp horn ſticketh faſt, then when the Lion ſeeth the Unicorn faſtned by the horn, without all danger he falleth upon him and killeth him. Theſe things are reported by the King of *Æthiopia*, in an *Hebrew* Epiſtle unto the Biſhop of *Rome*.

Philes.
Ælianus.

The taking of Unicorns.

It is ſaid that Unicorns above all other creatures, do reverence Virgins and young Maids, and that many times at the ſight of them they grow tame, and come and ſleep beſide them, for there is in their nature a certain ſavour, wherewithal the Unicorns are allured and delighted: for which occaſion the *Indian* and *Æthiopian* Hunters uſe this ſtratagem to take the beaſt. They take a goodly ſtrong and beautiful young man, whom they dreſs in the apparel of a woman, beſetting him with divers odoriferous flowers and ſpices.

Albertus.
Alunnus.
Tzetzes.

The man ſo adorned, they ſet in the Mountains or Woods where the Unicorn hunteth, ſo as the winde may carry the ſavour to the beaſt, and in the mean ſeaſon the other Hunters hide themſelves: the Unicorn deceived with the outward ſhape of a woman and ſweet ſmells, cometh unto the young man without fear, and ſo ſuffereth his head to be covered and wrapped within his large ſleeves, never ſtirring but lying ſtill and aſleep, as in his moſt acceptable repoſe. Then when the Hunters by the ſign of the young man perceive him faſt and ſecure, they come upon him, and by force cut off his horn, and ſend him away alive: but concerning this opinion we have no elder authority then *Tzetzes*, who did not live above five hundred years ago, and therefore I leave the Reader to the freedom of his own judgement, to believe or refuſe this relation; neither was it fit that I ſhould omit it, ſeeing that all Writers ſince the time of *Tzetzes*, do moſt conſtantly believe it.

It is ſaid by *Ælianus* and *Albertus*, that except they be taken before they be two years old they will never be tamed; and that the *Thracians* do yearly take ſome of their Colts, and bring them to their King, which he keepeth for combat, and to fight with one another: for when they are old, they differ nothing at all from the moſt barbarous, bloudy, and ravenous beaſts. Their fleſh is not good for meat, but is bitter and unnouriſhable: And thus much ſhall ſuffice for the natural ſtory of the Unicorn; now followeth the medicinal.

The Medicines ariſing from the Unicorn.

Concerning the horns of the Unicorn, I have ſufficiently already written, as the Antients have delivered in their remedies: but in this place I will handle the remedies which late Writers have attributed thereunto, as alſo our own obſervations of the ſame. I remember that in times paſt, I ſaw a piece of this horn of the weight of nine Inches, with a certain Merchant in the market, being black and plain, and not wreathed in circles or turnings, but at that time I did not ſo much obſerve it. Now amongſt our Apothecaries I do not not only finde ſmall or little fragments out of which there iſſued (as they ſay) ſome certain marrow, which are rounder, whiter, and ſofter.

But both the ſame colour, as alſo the ſubſtance being put too much, and eaten, if it be eaſily crummed, and not ſtuft as other horns, doth ſignifie the ſame not to be good or perfect, but counterfeited and corrupted: as perhaps the horn of ſome other beaſt burnt in the fire, ſome certain ſweet odors being thereunto added, and alſo imbrued in ſome delicious or aromatical perfume; peradventure alſo Bay by this means, firſt burned, and afterward quenched or put out with certain ſweet ſmelling liquors. There is great care to be had, that it be taken new, and while it ſmelleth ſweet, not either aboliſhed by age, nor the vertue thereof diminiſhed by often or frequent cups. For rich men do uſually caſt little pieces of this horn in their drinking cups, either for the preventing or curing of ſome certain diſeaſe. There are alſo ſome which incloſe it in gold or ſilver, and ſo caſt it in their drink, as though the force thereof could remain many years, notwithſtanding the continual ſoaking in Wine.

But that which is ſo uſed and drunk in Wine doth bring upon it a certain dark or obſcure colour, the whiteneſs which before remained upon the ſame being quite loſt, expelled and utterly aboliſhed. Moſt men for the remedies ariſing from the ſame, command to uſe the horn ſimply by it ſelf: Others prefer the marrow therein. It being caſt in Wine doth boil, which ſome men either through ignorance or deceit, impute to be a ſign of the true horn, when as contrarily any other horns being burnt, do in water or wine cauſe bubbles to ariſe. There are ſome wicked perſons which do make a mingle mangle thereof, as I ſaw amongſt the *Venetians*, (being as I hear ſay, compounded with lime and ſope) or peradventure with earth or ſome ſtone: (which things are wont to make bubbles ariſe) and afterward ſell it for the Unicorns horn.

Wherefore it ſhall be more ſafe to buy it out of the whole horn if it may be done, or of greater crums, and which may well deſcribe the figure of a horn; then ſmall fragments where you may receive leſs deceit. A certain Apothecary which was at *Noremberg*, in a ſtately mart Town amongſt the *Germans*, declared the way unto me how to deface the colour of an adulterated Unicorns horn, being made by ſome with Ivory, either macerated or boiled with certain medicines (by Set-foil as I ſuppoſe, and other things) by which means having ſcraped it, I found within the true ſubſtance to be Ivory. *Antonius Braſavolus* writeth, that all men for the moſt part do ſell a certain ſtone for Unicorns horn: which truly I deny not to be done, who have no certainty therein my ſelf: notwithſtanding alſo it may to come paſs, that a very hard and ſolid horn, about the point of a ſword eſpecially (which part is preferred to inferior, as alſo in Harts horns) to which either ſtones or iron may yeild, ſuch as Authors attribute to the Rhinocerot. And other Unicorns may bear the ſhape of a ſtone before it ſelf. For if *Orpheus* concerning Harts horns rightly doubted, whether the ſame or ſtones were of greateſt ſtrength: I think it more to be doubted in the kinde of Unicorns, for the horns of Harts are not only ſolid (as *Ariſtotle* ſuppoſed) but alſo the horns of Unicorns, as here I have ſaid.

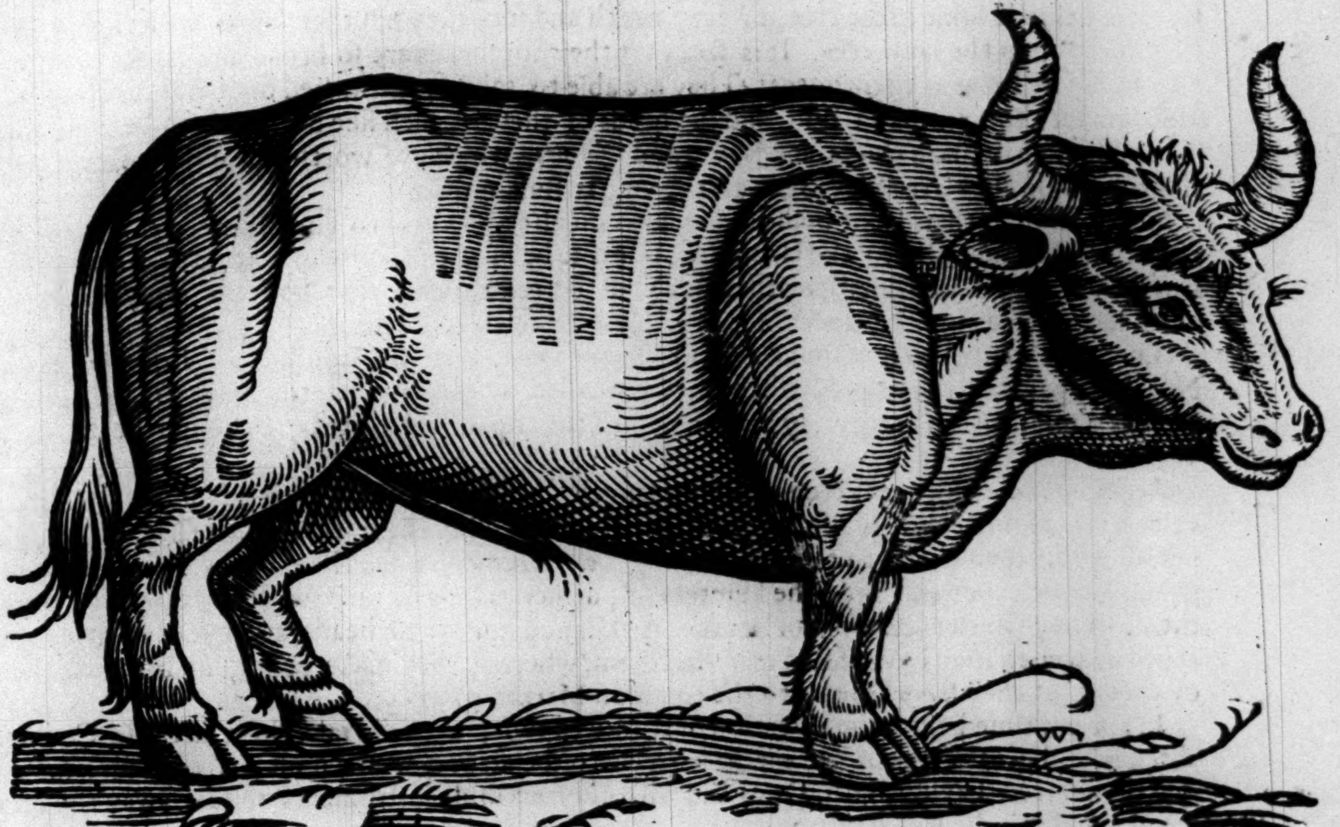
The horn of an Unicorn is at this day uſed, although age or longinquity of time hath quite aboliſhed it from the nature of a horn. There are ſome which mingle the Rhinoceros with the Unicorn, for that which is named the Rhinoceros horn, is at this day in Phyſical uſe, of which notwithſtanding the Authors have declared no effectual force. Some ſay that the Unicorns horn doth ſweat, having any poyſon coming over it, which is falſe, it doth perhaps ſometimes ſweat, even as ſome ſolid, hard, and light ſubſtance, (as alſo ſtones and glaſs) ſome external vapour being about them, but this doth nothing appertain to poyſon.

It is in like manner reported, that a kinde of ſtone called the Serpents tongue doth ſweat having poyſon come over it. I have heard and read in a certain book written with ones hands, that the true horn of a Unicorn is to be proved in this manner. To give to two Pigeons poyſon (red Arſnick or Orpin) the one which drinketh a little of the true Unicorns horn will be healed, the other will die, I do leave this manner of trial unto rich men. For the price of that which is true, is reported at this day to be of no leſs value then gold. Some do ſell the weight thereof for a floren, or eight pence: ſome for a crown, or twelve pence. But the marrow thereof is certainly of a greater price, then that which is of harder ſubſtance. Some likewiſe do ſell a dram thereof, for two pence half penny, ſo great is the diverſity thereof. For experience of the Unicorns horns to know whether it be right or not: put ſilk upon a burning coal, and upon the ſilk the aforeſaid horn, and if ſo be that it be true the ſilk will not be a whit conſumed.

The horns of Unicorns, eſpecially that which is brought from new Iſlands, being beaten and drunk in water, doth wonderfully help againſt poyſon: as of late experience doth manifeſt unto us, a man, who having taken poyſon & beginning to ſwell was preſerved by this remedy. I my ſelf have heard of a man worthy to be believed, that having eaten a poyſoned cherry, and perceiving his belly to ſwell, he cured himſelf by the marrow of this horn being drunk in Wine, in very ſhort ſpace.

The ſame is alſo praiſed at this day for the curing of the Falling ſickneſs, and affirmed by *Ælianus*, who called this diſeaſe curſed. The ancient Writers did attribute the force of healing to cups made of this horn, Wine being drunk out of them: but becauſe we cannot have cups, we drink the ſubſtance of the horn, either by it ſelf or with other medicines. I happily ſometime made this Sugar of the horn, as they call it, mingling with the ſame Amber, Ivory duſt, leaves of gold, coral, & certain other things, the horn being included in ſilk, and beaten in the decoction of Raiſins and Cinamon, I caſt them in water, the reſt of the reaſon of healing in the mean time not being neglected. It is moreover commended of Phyſitians of our time againſt the peſtilent feaver, (as *Aloiſius Mundellus* writeth) againſt the bitings of ravenous Dogs, and the ſtrokes or poyſonſome ſtings of other creatures: and privately in rich mens houſes againſt the belly or maw worms; to conclude, it is given againſt all poyſon whatſoever, as alſo againſt many moſt grievous diſeaſes. The King of the *Indians* drinking out of a cup made of an *Indian* Unicorns horn, and being asked wherefore he did it, whether it were for the love of drunkenneſs, made anſwer, that by that drink drunkenneſs was both expelled and reſiſted, and worſer things cured, meaning that it clean aboliſhed all poyſon whatſoever. The horn of a Unicorn, doth heal that deteſtable diſeaſe in men called S. *Johns* evill, otherwiſe the curſed diſeaſe. The horn of an Unicorn being beaten and boiled in Wine, hath a wonderful effect in making the teeth white or clear, the mouth being well cleanſed therewith. And thus much ſhall ſuffice for the medicines and vertues ariſing from the Unicorn.

Of the URE-OX.



The ſeveral names.

THis beaſt is called by the *Latines*, *Urus*; by the *Germans*, *Aurox*, and *Urox*, and *Groſſe veſent*; by the *Lituanians*, *Thur*; the *Scythians*, *Bubri*; and theſe beaſts were not known to the *Grecians*, (as *Pliny* writeth) of whom *Seneca* writeth in this manner;

Tibi dant variæ pectora Tigres,
Tibi villoſi terga Biſontes,
Latiſq; ſeri cornibus uri.

And *Virgil* alſo maketh mention of them in his *Georgicks*, writing of the culture or tilling of Vines.

Texenda ſepes etiam & pecus omne tenendum:
Præcipue cum frons tenera, imprudenſq; laborum,
Cui ſuper indignas hyemes, ſolemq; potentem,
Silveſtres uri aſſidue, capreæq; ſequaces
Illudunt.——

Theſe wilde beaſts or Ure-oxes are wilde Oxen, differing from all other kindes, already rehearſed in the ſtory of Oxen, Bugles, Biſons, or any other, although ſome have unskilfully taken them for Biſons, and Sir *Thomas Eliot* in his Dictionary, doth Engliſh *Urus* a Bugil, but beſide him no body, that I know, and for this cauſe he is reprehended by other. Now although there be nothing in this beaſt but ordinary, yet ſeeing it is a creature ſo well known, we have leſs reaſon to omit his ſhape and ſtory, leſt we ſhould juſtly be condemned of negligenee and careleſneſs.

The ſeveral parts.

In outward proportion of the body it differeth little from the Bull, It is very thick, and his back ſomewhat bunched up, and his length from the head to the tail is ſhort, no ways anſwerable to the proportion of his ſtature and ſides: the horns (as ſome ſay) are but ſhort, yet black, broad, and thick, his eyes red, a broad mouth, and a great broad head, his temples hairy, a beard upon his chin, but ſhort, and the colour thereof black, his other parts, as namely in the face, ſides, legs, and tail, of a reddiſh colour.

Places of their abode.

Theſe are in the wood *Hercynia*, in the *Pyrney* Mountains, and in *Mazovia*, near *Lituania*. They are call'd *Uri* of *Oron*, that is the Mountains, becauſe their ſavage wildeneſs is ſo great, than they ſeldom deſcend from thoſe ſafeguards. They far excel Bulls, and other wilde Oxen, coming nearer to the quantity or ſtature of Elephants, then to the Bull. In reſemblance a man would think them to be compounded of a Mule and a Hart, for their outward reſemblance ſo ſeem. It is ſaid they could never be taken by men, although they were taken when they were

young,

Countreys of their breed.

young, yet they love other heards of Cattel, and will not forſake them eaſily after they have once joyned themſelves unto them, whereby many times they are deceived and killed, twenty, thirty, or forty at a time. *Caligula Cæſar* brought of theſe alive to *Rome*, and did ſhew them in publick ſpectacle to the people, and at that time they were taken for wilde Bulls. Some affirm that there are of theſe in *Pruſſia*, and that they are ſo wilde, cruel, and untamable, as they fear or ſpare neither man nor beaſt; and when they are ſet upon and wounded by the Hunters in the Woods among the trees, feeling their hurts, and perceiving their bloud iſſuing out of their body, they rage above meaſure; for having no means to take revenge upon the Hunter, by reaſon that he ſtandeth behinde ſome great tree, for very wrath and fury they kill themſelves with their own headlong force upon the ſame tree. It is ſaid that their foreheads are ſo broad and large, that two men may eaſily ſit betwixt their horns. They are able to take up an armed man and his Horſe, and to toſſe him into the air like a Bull, and the heads of theſe or ſuch like beaſts are to be ſeen publiquely fixed up in common places at *Mentz* and *Wormes*, which are worth the obſervation, becauſe in all proportion they are twice ſo big as the vulgar Bull or Oxe.

Now although their large bodies and manes do alſo appertain to the Biſons, yet it is not unfit to attribute the ſame alſo to the Ure-oxe. For if it be in the pleaſure of any man to make it alſo a kinde of Biſon, I will not deny that this muſt be remembred, that both the body of this beaſt is much larger, and alſo the aſpect not ſo grim or fierce as is the Biſon.

Their ſtature.

There are many of theſe found alſo in *Angremannia*, and the Confines of *Lapponia*, and other Northern parts of the world, where they are called by the *Illyrian* term *Zubrones*, and theſe are ſo high as a tall man can hardly lay his hand upon the top of their backs, although he ſtrain himſelf very much.

And ſome of them are fifteen cubits in length, of whom, beſide their admirable ſtrength, their velocity and nimbleneſſe is alſo remarkable, for it is ſaid of them, that when they empty their bellies, they can turn about to take their dung or excrement upon their horns before it fall to the ground, which they caſt upon the Hunters or purſuers, Dogs or men, whereby they blinde and burn them. They which accuſtome or practiſe to kill and hunt theſe beaſts, are greatly commended and rewarded when they have killed many of them, whereof they make proof, by bringing the horns of them that they have killed into the common Market-place.

In ancient time before the invention of Iron weapons, they did take them in thoſe Countreys in ditches, and great caves of the earth, whereunto the ſtrongeſt and moſt active young men did apply themſelves, having both Dogs and all other needfull inſtruments to take away the life of this beaſt; and if it did not happen that he faſtned his horns into ſome tree, then was all their labour loſt, for they could never come neer to touch him, only when in his ſpeedy ſwift fury among the woods, he ran his horns into the body of ſome Oaks or ſuch like, whereby he was ſtayed, (for it is not ſo eaſie to pull them forth as to fixe them, becauſe they are rugged, crooked, and ſtand upward) then he was overtaken and killed by ſome Hunter or other. And if at any time he met with a Hunter, it was fatall and deadly to the man, except he could avoid the beaſt by getting unto ſome tree.

Uſe of their parts.

Sigiſmundus Baro, that honourable man writeth thus hereof, that in *Malonia* neer *Lituania*, it is bred, and called *Thur*, and they are a kinde of wilde Oxen, not differing from the vulgar, (except as aforeſaid) but in their colour, and a ſpotted ſtrake or line which goeth all along their backs. And thoſe Ure-oxen are kept as it were in Parks and Chaſes, having a peculiar deſignment by the King, and the inhabitants of certain Villages to keep and watch them. Sometimes when they meet with a common or vulgar tame Cow, they leap upon her, and fill her; but ſuch a Calf liveth not long, but dyeth as if it were not perfect, and if it do chance to live, it never reſembleth the ſire, nor yet is admitted into their ſociety and herd, but are refuſed for baſtards and ignoble breed. And when he was Ambaſſador to *Sigiſmundus* the Emperour he received for a gift one of theſe killed, and bowelled, having the skin of the forehead cut off and taken away, whereat he wondred much but durſt not ask the queſtion or reaſon thereof; yet afterward he underſtood that there were girdles made of that part of the hide, whereby the women in that Countrey were perſwaded that they ſhould be made apt to conceive and bring forth children: and *Bona* the mother of *Sigiſmundus* gave unto him two girdles for that purpoſe, whereof he ſaid he beſtowed one upon the Queen of of *Romans*, who did take the ſame at his hand very graciouſly and thankfully. And it is certain, that out of the hides of theſe beaſts are made girdles, which are two fingers thick, and ſtrong, and yet the hair upon them is ſoft and gentle like any Wooll.

The fleſh of theſe beaſts is rank and heavy, and if it be eaten freſh it cauſeth looſeneſſe, but if it be ſalted a day or two it is nothing inferiour to Beef, for ſo the humidity is taken away. With the horns are made drinking Cups, and for that purpoſe the richer ſort of people do edge or lip them over with ſilver and gold: they hold or contain as much as two ordinary Pitchers of water. Other take off the points and faſten them to ſpears, being very ſharp, and not eaſily blunted or broken, and other make of them cut into ſlices or panes the beſt Lanthorns in the World. And thus much for the Ure-ox, unto whoſe Hiſtory it is needfull for me to adde the ſtory of divers other wilde Oxen not yet deſcribed.

Hiſtories of other wilde Oxen.

Strabo ſaith, that there are Oxen called *Rhizes*, among the *Heſperian Æthiopians*, who in outward proportion are much like the vulgar Bulls, but in other parts, as quantity, ſtrength, and vigour, comparable to the Elephants.

Theutus

Thevetus writeth, that betwixt *Florida* and *Palma*, in the new found World, there are very many ſtrange ſhaped beaſts, and among other a kinde of wilde Bull, whoſe horns are a foot long, but on his back he hath a tumour or bunch like a Camel, and is therefore called *Bos Camelita*, his hair all over his body is very long, but eſpecially under his chin, and his colour like a yellow Mule, and this beaſt is a continual enemy to a Horſe. Like unto theſe are the tame *Scythian* Oxen, and ſome other in *Aſia*, who carry packs upon the bunches of their backs, and alſo bend their knees like Camels.

Of the *Lybian* OXE.

THere is ſo great an innumerability of *Lybian* Oxen, of ſo great ſwiftneſſe and celerity, that the Hunters are many times deceived in hunting them, and ſo do certainly chance or fall upon other wilde beaſts for the ſame they raiſed, and he in the mean while doth hide himſelf in a place of brambles and briars, keeping himſelf there ſafe, while other wilde beaſts doth appear like unto them, and ſo do deceive the eyes of the Hunters: therefore if any man do begin to follow after either of them, it will be but labour loſt, for he is not able to comprehend or attain them with a Horſe, except he may take them being wearied by longitude of time. But if any Hunters ſhall finde a young Calf, ſpare the life thereof, and ſhall not preſently kill it, he ſhall reap a double profit by it: and firſt it doth bring profit to it ſelf, and doth induce or lead his Dam into captivity. For after that the Hunter hath bound the Calf with a rope, ſhe being inflamed by the love or affection which ſhe beareth to her Calf, returneth back again unto it, coveting with an ardent deſire to looſen and take away her Calf out of the bond or halter, therefore ſhe thruſteth in her horn that ſhe may looſen the cord, and pluck her young one away, whereby ſhe is kept faſt bound with her Calf, her horns being intangled in the rope. Then cometh the Hunter and killeth her, and *Ælianus.* taketh forth her liver, and alſo cutteth off her dugs or udder, and doth likewiſe pluck off her skin, and leaveth her fleſh for the Birds and wilde Beaſts to feed upon. There is another kinde of Ox in *Lybia*, whoſe horns do bend downward, and for that cauſe they are fain to feed going backwards. Of the ſayings of *Herodotus* and *Ælianus*, I have ſpoken before. *Philes* doth write, that they are called Oxen going backward, becauſe the broadneſſe of their horns doth cover their eye-ſight, ſo that it ſtandeth them in no uſe to go forward, but is very commodious to go backward. There is an Oxe which liveth in the Woods of *Africk*, which doth reſemble a domeſticall Oxe, yet leſſe in ſtature, of a brown or ruſſet colour, and alſo moſt ſwift of foot. This beaſt is found in the deſerts, *Leo African.* or in the Marches or limits of the deſerts. Their fleſh is alſo of a perfect or abſolute ſavour and taſte, good for the nouriſhment of men.

Of the *Indian* wilde OXEN.

THe horns of the Oxen of the *Garamantons* do grow downwards toward the earth, and there- *Pliny.* fore when they feed they bow the hinder part of the neck, (as *Solinus* writeth) and as we have ſpoken before in the diverſities of wilde Oxen. The Woods alſo in *India* are filled with wilde Oxen. In the Province of *India* where the *Gymnits* inhabit, are great multitudes of Oxen which live in the Forreſts or Woods. In the Kingdoms which are upon the borders or confines of *India*, (in the *Strabo.* mid of the day) are many fair and great Oxen which live in the Woods. There are Mountains in *Paul: Venet.* the inmoſt Regions of *India*, which are very hard to come unto, where they ſay live thoſe beaſts wilde, which are among us domeſticall and tame, as Sheep, Goats, Oxen, and ſo forth. The great King of *India* doth elect or chooſe a day every year for the runnings and combats of men, and alſo fightings of Beaſts, who ſetting their horns one againſt another, do fight irefully with admirable rage, untill they overcome their adverſaries. They do alſo labour, and ſtrive with all their nerves *Ælianus.* and ſinewes, even as if they were Champions, or fought for ſome great reward, or ſhould get honour by their battell.

Wilde Bulls, tame Rams, Aſſes with one horn, Hyenaes, and laſtly Elephants, as if they were capable of reaſon, they wound them among themſelves, and the one doth oftentimes overcome and kill the other, and ſometimes fall down together being both wounded. I have alſo recited before in another place of the intreaty of Oxen, thoſe *Indian* Oxen which are ſaid to be moſt ſwift in their joynts in running to and fro, when they are at combate, becauſe there we had not diſtinguiſhed whether theſe were wilde Oxen or not: but it doth appear in this place, that they are wholly taken for wilde Oxen: and the thing it ſelf doth manifeſt that domeſticall Oxen are not ſo ſwift nor ſo ſtrong.

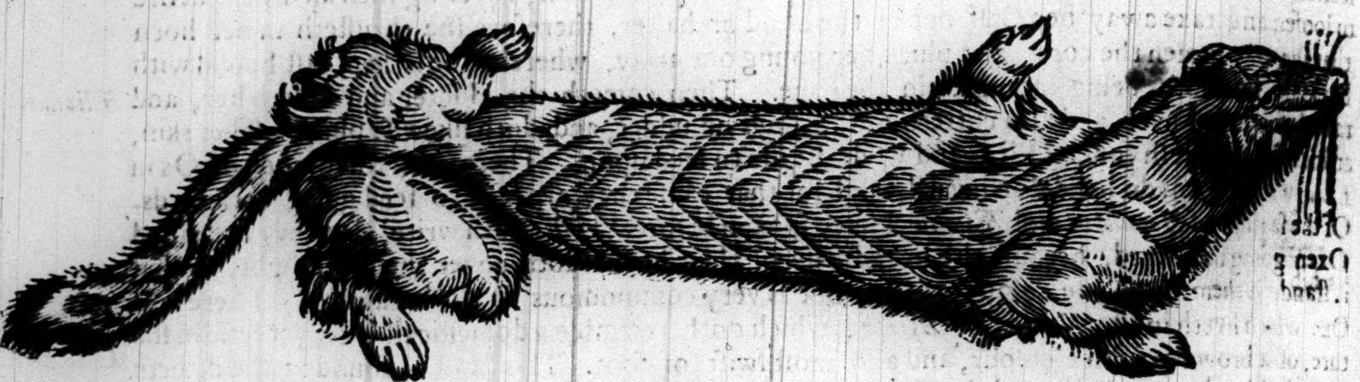
The Oxen in *India* have altogether whole hoofs, and alſo but one horn. *Æthiopia* alſo doth *Pliny.* breed *Indian* Oxen, that is to ſay, Oxen that are like to thoſe of *India*, for ſome have but one horn, and other ſome three. *Solinus* ſaith, that there are found in *India* ſome Oxen which have but one horn, and otherſome which have three horns, with whole hoofs and not cloven. The *Indian* Oxen are ſaid to be as high as a Camel, and their horn four foot broad. *Ptolemeus* doth report, that he ſaw a horn of an *Indian* Oxe which did hold in the breadth of it thirty gallons.

There

Ariſtotle.

There are alſo Oxen which are bred in *India* which in greatneſſe are no bigger then a Buck, or Goat, they do run yoaked together very ſwift, nor do end their race with leſſe ſpeed then the Goat, and Horſes, and I did not take them to be Oxen living in the Woods, for our Rangifer and Oxen which live in the Woods, are the ſwifteſt of all beaſts in this kinde, and moſt apt to combats and runnings, and they may partly be called Oxen having one horn, and partly Oxen having three horns: neither are they found in *Scandinavia*, but alſo in other Regions and Dominions of *Aſia*, as we beleeve that *Indian* Oxen are of the ſame kinde. *Solinus* doth not rightly call thoſe *Indian* Oxen, which *Ælianus* calleth *Æthiopicos*, as I have declared above in the ſtory of the *Æthiopian* Oxen, for their horns are moveable. *Cteſias* doth write, that there are ſprung up among the ſame beaſts, that beaſt which is called *Manticbora*: which is manifeſted by *Ariſtotle* in his Hiſtory of Four-footed beaſts. *Hermolaus* alſo and others have not conſidered this error. Among the *Arachotans* there are Oxen which live in the Woods, which do differ from thoſe that are bred in the City, as much as wilde Swine from tame. Their colour is black, bending a little downwards, and their horns broad and upright. There is a City in *India* called *Arachotus*, taking the name from the River *Arachotus*, which doth flow out of *Cauſacus*, what thoſe beaſts are which do bend their horns upward, I have declared in the ſtory of the *Biſon*; for as there may be ſpoken ſomething concerning the difference of the Plants of the Woods, ſo alſo concerning the beaſts that are bred in the City, and thoſe that are bred in the Woods.

Of the *WEASEL.*



THere are divers kindes of Weaſels, but in this place we do intreat of the leaſt kinde, whoſe form and ſhape we have alſo here ſet down. It is likewiſe properly named of the *Latines*, *Muſtela*, a Weaſel, for ſo we were wont plainly to name thoſe which were common and domeſticall, and to adde names to thoſe which are more ſeldome ſeen, or live in the Woods for difference ſake.

The word *Cholad* in Levit. 11. is tranſlated a Weaſel of all Interpreters. The *Rabbins* do call them *Chuldah*, and commonly *Muſtela*, as *David Kimbi* writeth. The *Chaldeans* do tranſlate it *Chulda*, the *Arabians Caldah*, the *Perſians Gurba*, and *Hieron. Muſtela*. *Oach* is an *Hebrew* word, whereupon it was once called *Ochim*, plurally in Iſai. 13. Babylon *ſubvertetur*, *& implebunt domos eorum Ochim*, *Munſterus cercopithecos vertit*. That is to ſay, Babylon *ſhall be overthrawn, and their houſes ſhall be filled with Ochim*, that is, *Weaſels*, but *Munſterus* doth call them Munkeys. *David Kimbi*, and the Maſter of *Thalmud*, do call it *Nemiah*, that is, like to a Cat, but commonly they call it a *Martin*, or *Firum*, and *Furon*. The Authors of the Concordances of the *Hebrewes*, do interpret *Kopb*, *Circopithecum*, or *Cephum*, and *Culdah*, that is to ſay, *Muſtela*, a Weaſel, as the *Jewes* do think. The *Chalde* hath tranſlated a Martin *Ochijn*. *Symmachus* alſo hath left or forſaken the *Hebrew* word. *Aquila* doth tranſlate it *Typhones*, that is, a Whirle-winde, *Hieronymus* doth tranſlate it *Draco*, that is, a Dragon

Koab is truly interpreted to be a kinde of *Lizard*, or a *Chamælion*; in Leviticus 11. We alſo read in *Albertus*, *His*, and *Hyrzus*, (two barbarous words) for a Weaſel, which he himſelf doth not underſtand: but I have diſcerned or taken this ſignification out of the words of *Ariſtotle*: for *Albertus* doth moſt unlearnedly expound *Hircum* a Hare, being deceived, becauſe both the living beaſts do often times remove their young ones from one place to another in their mouths. *Fetlis* alſo doth ſeem to be according to *Ariſtotle*, no other thing then *Gale*, that is to ſay, a Weaſill. For *Feyton* (ſaith he) it hath wit like a Fox, that is to ſay, in ſetting upon Hens or Chickins, and the other ſhape and form of it is *Katiz*, that is to ſay, *Ictis*, a Ferret. *Namſitza* alſo is even to this day called a Weaſel among the *Grecians*. *Ibanauge* is alſo called a Weaſel, *Ibinuers* is a little four-footed beaſt. *Bellula* alſo doth ſeem to ſignifie a Weaſel, by a feigned word prodeeding from the *French* or *Italians*, which do call alſo *Belettam*, *Balottam pro Muſtela*, for a Weaſel, but ſome of the later *Grecians* do abuſe it, in terming it a Cat, as I have ſpoken before in the Hiſtory of the Cat.

Silvaticus.

Theodorus Gaza in *Ariſtotle* doth interpret it ſometimes a Weaſel, and other ſometimes a Cat; neither can I ſufficiently gather wherefore he doth ſo change it, ſeeing that the *Grecians* call *Cattum* for a Cat *Aeluron*, and the *Latines Felem*. Some ſay, that *Muſtela* for a Weaſel hath been interpreted or declared of late dayes, being only led (if I be not deceived) with the affinity of the *German* word, for the *Germans* do call *Muſtela* a *Wiſel*. The *Grecians* do uſually take to this day *Muſtela* for a Weaſel, as I have read in the Oration of *Suidas*. A Weaſel is called in *Italy Donnola*, or *Ballottula*. It is apparent by the words of *Aviten*, that *Donnula*, and otherwiſe *Dannula* is barbarouſly uſed *pro Muſtela* for a Weaſel: *Albertus* and *Niphus* do write *Damula* for a Weaſel, by the which word, the later Writers do very obſcurely underſtand *Dama* for a Weaſel, which is of the kinde of Goats living in the Woods. *Damma* or *Dammula* is a ſmall and weak beaſt, (as *Iſidorus* writeth) ſpeaking of thoſe that are wilde, and will not come to hand. When it doth bring forth young, it doth preſently devour the Seconds or thoſe that come after birth, before they touch the earth, and yet it is a prey it ſelf to other Four-footed beaſts. You may alſo ſeem to take a little Dear, or a kinde of young Goat, or a Weaſel, for that kinde of beaſt which doth devour her Seconds: But we read that neither of theſe do it.

Scopa.

Albertus.

The Lizard is ſaid to devour her firſt litter which ſhe littereth in her old age. We alſo call Domeſticall Weaſels, *Foinos*. A Weaſel is called in *France*, *Belotte*, or *Belette*, and *Albalotte*. Some as I do hear, which do inhabit about the Towns of *Meta*, do call them *Baccal*. *Carolus Figuli* doth interpret a Weaſel in *French*; *Fovinum*, or *Marturellum*, of which I have ſhewed before that there is two kindes, and alſo that there are Weaſels living in the woods. In *Spain* alſo they are called *Comadreia*. The people of *Rhetia* which ſpeak *Latine*, do keep the *Latine* name. The *Germans* do call them *Wiſel* or *Wiſele*. *Georgius Agricola* ſaith, that it is called a Weaſel by reaſon of the noiſe that it maketh. Otherſome dwelling in *Helvetia*, do call it *Hermelin*, and ſome do call it by a corrupt word *Hamlin*, but thoſe ought only to be named ſo which are altogether white, and are found in Winter time. But here in *England* it is called a *Weaſell*, and ſome do write it *Weſyll*, or *Weaſyll*: But the white Weaſel is called *Minever*, by the tranſpoſition of the letters of the *French* word, it is called *Herminne*, and among the *Illyrians*, *Kolczauna*.

Some do think at this day, that the beaſt whoſe ſhape and form we have given for a Weaſel, is the Shrew-mouſe, but not rightly, for their only reaſon is, that the bitings of it doth poyſon and harm almoſt in like manner. *Albertus* alſo doth write, that the Sea Weaſel is called the field-Shrew, which is utterly falſe and untrue: For the Shrew is called among the *Grecians*, *Mygale*, male or female. They do now alſo commonly call *Ichneumon* the *Indian* Mouſe, and otherſome the fallow Deer: But *Damula*, or *Donula*, is of the *Italians* and ſome later barbarous Writers, altogether called a common Weaſel, and not *Ichneumon*, which is a peculiar beaſt to the *Egyptians*.

Niphus.

The etymology of Weaſels.

Now the reaſon of the *Latine* name *Muſtela*, *Carolus Figulus* is of opinion, that it is derived of *Mys* and *Stelio*, two *Greek* words, becauſe it devoureth Mice, and both the *Germans* and the *Engliſh* derive their word *Steal*, or *Stellen*, to rob or filch, from the *Greek* word *Stellein*; ſo that it is ſo called, becauſe this Weaſel is a ſtill, and ſecret, ſtealing, and devouring beaſt. *Calepin* ſaith, that *Muſtela* is *quaſi longior Mus*. This beaſt is alſo called by *Ariſtotle*, *Habeninum*, and it is ſaid, that it hunteth Moles or blinde Mice.

The epithets, colour, and ſeveral parts.

The Epithets hereof are, fearfull, in-creeper, and ſwift, and beſide theſe I finde not any materiall, or worthy to be rehearſed. Now concerning their outward proportion, it is as we have here deſcribed, a long and thin body, but the colour thereof varieth; for ſome of them are brown, and branded, ſome black, and ſome clean white, which we have ſhewed already to be the *Ermyn*: for in ſome places of *Germany*, *Helvetia*, and the *Alpes*, the Weaſels in the Winter become all white. But foraſmuch as there are two kindes of Weaſels, one vulgar and domeſticall, living in houſes and Cities, and the other wilde, living in the Woods and Mountains: we finde alſo that they differ in colour, neither of both being conſtant in the ſame; for the domeſticall Weaſel is upon the back, and ſide ſandy, red, and ſometime yellowiſh, and alwayes white on the throat, yea, ſometimes as *Geor. Agricola* writeth, they are all white, whereat no man ought to wonder, ſeeing the Hares of *Helvetia* do in the Winter time turn white: And of theſe white Weaſels or *Ermyns* there are abundance in the Northern parts of *Europe*, where their Summers are ſhort, and their Winters long: And theſe white Weaſels differ nothing from the common vulgar Weaſels of other colours, except that their hair ſtick faſter to their backs; and it is obſerved, that in *Ruſſia* the Nobleſt women are apparelled with theſe skins: And there is a Wood in *Scandinavia* (called *Lanzetucca*) which is fourſcore mile long, wherein are abundance of white Weaſels: And the Kings tents among the *Tartarians* are ſaid to be covered all over with the skins of Lyons without, and the walls to be hung with theſe *Armins* or white Weaſels within; and although the price of theſe skins be very deer among them (for ſometimes ſo many as are uſed in one Garment will coſt two thouſand Crowns) yet do the people earneſtly ſeek after them, accounting it no ſmall honour, to wear ſo much wealth upon their backs.

Now the reaſon why theſe beaſts came to be called *Armilini*, is from *Armilla* a chain, becauſe they did wear them in fringes about their garments like chains, and although that ſome of the *Alpine* Mice be all white, and likewiſe the Pontique Mouſe, yet there muſt be a difference obſerved betwixt theſe Weaſels which are properly called *Armins*, and thoſe Mice which are ſo called, only by way of reſemblance, as we have ſhewed already in their ſtories. And of the Pontique Mouſe, I may adde thus much more, that they live in the Winter time in hollow trees, wherein they become as white as ſnow all over, except their tails, and are in quantity like Squirrels, but in the end of *May* they turn ſomewhat red, becauſe that then they give themſelves to copulation and generation of young ones, when they lay aſide their whiteneſſe, and live many dayes together in carnall copulation,

lation, among the green and freſh herbs, leaving behinde them ſuch rank and unſavoury ſmells, as are very odious to a good ſent: And it is ſaid, that every three year their skins through abundance of food grow greater and greater, to the exceeding commodity of Merchants, and Skinners in *Norway*, and *Helſyngia*.

Of the Lemmar.

There are certain little four-footed beaſts called *Lemmar*, or *Lemmus*, which in tempeſtuous and rainy weather, do ſeem to fall down from the clouds, and it was never yet found, whether their beginning aroſe firſt from heaven or earth, but this is certain that as ſoon as ever they have fallen to the ground, ſome of them have been opened, and in their bowels have been found green herbs, and therefore I marvel why ever it ſhould be beleeved that theſe beaſts are bred of ſome feculent matter in the clouds; but if any man ask me from whence then have they their beginning, I anſwer from the earth, even as Locuſts and Catterpillers, who are ſaid in holy Scripture to be carryed to and fro with the windes, and ſo theſe beaſts being deſtitute of naturall food in their places of generation, do advance themſelves into the winde, and ſo are carried into other ſtrange and unknown Countreys, where they fall like Locuſts upon every green thing, living untill they have devoured all, but when once they taſte of new grown herbs, they periſh and die, by means whereof they encreaſe great peſtilence and corruption, but the *Armlins* or *Armins* do eat and devour them.

Now the Skins of theſe beaſts are exceeding delicate having in them divers colours, and therefore the people flea them off from their bodies, and ſell them by thirty or forty in bundles, for great price; but of theſe skins I have ſaid enough, both here and elſewhere. The wilde Weaſels differ not from the vulgar domeſticall Weaſel, their foreteeth are ſhort and not long like a Mouſes, the face broad, their genital part like a Foxes, their tail ſhort, their legs and clawes ſhort, ſtrong and ſharp; and it is reported by *Strabo*, that the Weaſels of *Mauritania* are as big as Cats, but their gaping and opening of their mouth much longer, and wider. There is an Iſland called *Dordicelena*, on the one ſide whereof (as *Pliny* writeth) there are Weaſels, and through the middle there is a way over which they never paſſe, and on the other ſide there are not only not any bred, but alſo if they be brought into it, they die and periſh, and ſo likewiſe it is reported of *Beotia*.

Places of their abode.

They make themſelves caves and holes in the earth, rocks, and walls, wherein they lodge, into the which they frame two paſſages or doors, one into the South, the other into the North, (reſembling herein the Squirrels) that ſo they may be free from the winde, on which ſide ſoever it bloweth, ſometimes they get into ſtacks of Hay and ſtraw, and there they lodge: thoſe Weaſels which live neer houſes ſleep not much, for they have been ſeen abroad all the Winter time, not only the vulgar but the *Armins*: neither are they unthankfull unto the Countrey men in whoſe houſes they lodge, for they kill, eat, and devour all manner of Mice, Rats, and Moles; for becauſe of their long, ſlender bodies, they are apt to creep into the holes of the earth, and narrow paſſages, fetching their prey from thoſe places whither Cats cannot come; therefore in *Helvetia* the Countrey men nouriſh them more then Cats, becauſe they deſtroy more vermin then Cats. The harm they do is to Hens, Chickens, and Egs, and yet ſome ſay they eat the Egs and let the Hens alone: they are likewiſe enemies to Geeſe, and devour their Egs; and *Ælianus* writeth, that if they come unto dead men, they will pull out their eyes in ſuch manner as they do Egs, and therefore ſuch Carkaſes are to be watched againſt them. *Amyntas* writeth, that the Shrew-mouſe is conceived betwixt a Mouſe and a Weaſel, which opinion is not only ridiculous, but impoſſible, for how is it likely that a Mouſe will ingender with that beaſt which lyeth in wait to deſtroy her? It is alſo ſaid, that a Weaſel fighteth with thoſe Serpents that hunt after Mice, for no other cauſe, but to gain the prey from him.

Their copulation and conception.

There is nothing in this beaſt more ſtrange, then their conception and generation, for they do not engender nor couple in their hinder parts, like other four-footed beaſts, but at their ears, and bring forth their young ones at their mouth, and for this cauſe *Ariſteas* writeth, the *Jews* were forbidden to eat them, for this their action was an emblem of folly, and of fooliſh men, which can keep no ſecrets, but utter all that they hear (thus ſaith he) But we that are Chriſtians knew other reaſons why the *Jewes* were forbid to eat them. The *Egyptians* make of it another ſign, for they ſay, that their copulation at the ear, and generation at the mouth, are emblems of ſpeech which is firſt taught to the ear, and then uttered by the tongue: there be other again that hold this to be a fable: And Pope *Clement* writeth, that they conceive at the mouth, and bring forth at the ear. Many ſay, it is true of the Weaſel of the Sea, but not of the Weaſel of the earth, which is therefore called *Collipara*, and this they would confirm by another fable of *Meduſa*, whoſe head after it was cut off, it is ſaid to bring forth *Chryſaor* and *Pegaſus*; ſome do alledge for this opinion, that the Crowes and the *Ibis* do conceive at their mouths: but this is certain, that they have places of conception underneath their tails like other four-footed beaſts, and therefore how it ſhould come to paſſe, that their young ones ſhould come forth at their mouths, I cannot eaſily learn. It may be that the opinion thereof firſt aroſe from the ſight of ſome old one carrying her young in her mouth, for the young ones are very ſmall like Mice, and therefore it is likely that they remove them to and fro, as Cats do their young ones, for they are in continuall fear, leſt they ſhould be taken and deſtroyed by men, or by ſome other enemy beaſt.

The dung of Weaſels doth ſmell many times like musk, the reaſon whereof we have ſhewed you in another place, all of them in generall have a moſt rank and filthy ſavour. It is a ravening and deſtroying beaſt; and although the body of it be very ſmall, yet is the wit and underſtanding of it very great, for with ſingular art and ſubtility it compaſſeth his prey, whereupon there lyeth this hiſtory of *Galanthis* the maid of *Alcmena*, as *Perottus* obſerveth out of *Ovid*. When *Alcmena* was in long travel and childe-birth, it is ſaid that the maid perceiving ſhe was hindered by *Lucina*, craftily obtained not only the knowledge of the cauſe by *Lucina*, but alſo the remedy; whereupon ſhe eaſed her Lady, (like a true and faithfull ſervant) of many pains. *Lucina* ſeeing that ſhe was beguiled by *Galanthis*, and that her crafty wit had over-reached a Goddeſſe, ſhe turned her into a Weaſell, for her puniſhment, that as ſhe had ſinned by revealing of the counſell of the Goddeſs, ſo ſhe ſhould be puniſhed to bring forth all her young ones at her mouth, as Weaſels do; and for this occaſion, the Domeſticall Weaſel like a Maid doth continually live in houſes, and her colour yellowiſh like the hair of *Galanthis*: thus ſay they of metamorphoſing and transforming.

Other ſome ſay, that when *Alcmena* was in travail of *Hercules*, having indured long torments, ſhe was delivered by the ſight of a Weaſel which came in her preſence, and therefore the *Theban Grecians* do religiouſly worſhip a Weaſel, for they ſay, that as it was nouriſht by *Hecate* the Goddeſſe, ſo it did nouriſh *Hercules*; but herein they take *Gale* for *Galanthis* aforeſaid, that is, a Weaſel, for *Alcmenaes* maid: And ſeeing we have begun to talk of transformations, I will adde another thing out of *Stobeus*, not impertinent to this common place, for he writeth in the diſpraiſe of women, that the diverſity of their diſpoſitions perſwadeth him that ſome of them are derived from one beaſt, and ſome from another; and namely thoſe which come of Weaſels, are a miſerable, ſullen, and ſorrowfull kinde of women, to whom nothing is pleaſing, delightfull, or acceptable, but having no minde to the pleaſure of *Venus*, loathing her husband, hurteth her neighbours, robbeth her ſelf, and devoureth conſecrated and hallowed things, even after the manner of Weaſels, which will take a booty from the Altar: Thus ſaith he, which I beleive to be true in the compariſon, but not in the generation or tranſmutation of women from Weaſels.

The ſignification of a Weaſels occurrence.

I do marvail how it came to paſſe, that a Weaſel was called, an unhappy, unfortunate, and unlucky beaſt among Hunters, for they held opinion here in *England*, that if they meet with a Weaſel in the morning, they ſhall not ſpeed well that day; therefore the *Grecians* ſay *Galeſteir*, and *Alciatus* hath an excellent Emblem, whereby he inſinuateth that it is not good to have a Weaſel run upon ones left hand, and therefore adviſeth a man to give over his enterprize after ſuch an *Omen*. Now although I would have no wiſe man to ſtand in fear of ſuch a ſuperſtitious conceit, yet I will ſubſcribe his verſes, more for variety and elegancy, then for truth:

Auſpiciis res cœpta malis bene cedere neſcit:
Fœlici quæ ſunt omine facta, juvant.
Quicquid ages, Muſtela tibi ſi occurret, omitte:
Signa malæ hæc ſortis beſtia prava gerit.

It ſhould ſeem that the beginning of this opinion did come from the puniſhment of a certain Generall of the *Corinthians* Navy, who being perjured in breaking his faith to that State, came running away from them; and they ſay, that afterwards he could never ſleep, but that he dreamed Weaſels came and tore his fleſh from his body: At laſt through anguiſh and grief of minde, he ſlew himſelf. Theſe things are reported by *Heraclides*, which whether they be true or falſe, are but a ſilly and ſlender foundation to build upon them a Propheticall opinion, or preſage future evils; and ſo I will leave the morall part of the Weaſel, and return again to the naturall. They have knowledge like Mice and Rats, to run out of houſes before their downfall. They live in hatred with the Serpent that hunteth Mice, for by eating of Rue they drive them out of houſes wherein they inhabit; and this is a wonderfull work of God, that this ſilly beaſt ſhould have the knowledge of the vertue of that herb, and not only arm her ſelf with it, becauſe it is hatefull to Serpents, and they in no wiſe in nature able to abide it, but alſo by it to reſtore to life again her young ones after they are dead.

There is a poyſon in Weaſels which deſtroyeth the Cockatrice, for when the Weaſel findeth the Cockatrices hole or den, ſhe layeth her poyſon in the mouth thereof, whereby two contrary natures meet and fight, and the leſſer overcometh the greater; and this is affirmed both by *Pliny* and *Solinus*; wherefore all manner of Cattle do fear Weaſels. They hunt all manner of birds, pulling out their throat as a Wolf doth a Sheeps. They will play with Hares till they have wearyed them, and then deſtroy them; they are in perpetuall enmity with Swine, Ravens, Crowes, and Cats, for although Cats ſometimes ſet upon them, yet they cannot overcome them. In many places of *Italy* they are nouriſhed tame, for as Ferrets are uſed to fetch Conies out of the earth, ſo are Weaſels by tying a ſtring about their neck, to fetch young Pigeons out of Dove-cotes, and birds out of their neſts. If the powder of a Weaſel be given unto a Cock, Chickens, or Pigeons, it is ſaid, they ſhall never be annoyed by Weaſels.

Likewiſe if the brain of a Weaſel be mingled with a rennet in Cheeſes, it keepeth them from being touched with mice or corrupted with age. The fleſh of a Weaſel is not uſed for meat, but dried and preſerved for medicines. The powder thereof mixed with water, driveth away Mice, by caſting the gall of *Stellius* in a houſe where Weaſels are gathered together, and then by Oyl of bitter Almonds, or ſalt Ammoniak they are killed, but if one of their tails be cut off, all the reſidue do forſake the houſe. And thus much ſhall ſuffice concerning the Hiſtory of Weaſels, now followeth the medicines ariſing out of their bodies.

The Medicines ariſing from the Weaſel.

Vlſinus.

A Weaſel being applyed unto thoſe which are troubled with Agues or Quartern Feavers, doth in ſhort time cure them. It doth alſo being mingled with other things make a wonderfull pleaſant mollifying medicine for thoſe which are troubled with the gout, or any other infirmity in the joynts, and eaſeth thoſe which have a continuall ache in the head, leaving a certain matter on the top thereof, and ſtroaking it from the forehead to the hinder part of the head.

Ætius.

For the curing alſo of the gout, this is an excellent remedy. To take a little young whelp alive, well fatted, and a living VVeaſel in nine pints of Oyl, and unto the ſame two or three pounds of Butter, and to boyl them together, untill the beaſts be made lank or lither, and then to put your hands or feet a whole day in hot Oyl well ſtrained. *Avicenna* attributeth certain things to VVeaſels fleſh only, which the claſſicall Authors rather aſcribe to the powder of VVeaſels which are theſe: to be applyed to the gout, being drunk in wine againſt the Falling ſickneſſe, and the head-ache, but it is accounted an eſpeciall remedy againſt the bitings of Scorpions.

Avicenna.

Theophraſtus.

The fleſh of a VVeaſel being taken is a very good and effectuall preſervative againſt all poyſons. The ſame being taken in meat, the head and feet only caſt away, doth help thoſe which are troubled with wens or bunches in the fleſh, being firſt anoynted with the blood of the ſame beaſt. The bloud of a VVeaſel is very well applyed to broken or exulcerated ſores in the fleſh. The ſame vertue hath the whole body of a Weaſel, boyled in wine, being in the manner of a plaiſter placed thereunto. For the expelling of the gout take a dead Weaſel, and boyl him in Oyl, untill it be made liquid, then ſtrain forth the Oyl, and mingle it with wax, faſhioning the ſame in the form of a plaiſter, and this being in good order applyed, will in very ſhort time expell it quite away.

Dioſcorides.

A houſe Weaſel is wont to be burned for divers remedies, and to be embowelled with ſalt, and dryed in a ſhade. But there are ſome late writers which affirm, that a Weaſel is better being dryed or burned for the ſaid diſeaſe, then uſed in the aforeſaid manner, ſome alſo which are more fooliſh, think it beſt, being only ſalted, but it is more proper, being uſed in the firſt manner.

The bodies of creatures which are dry by nature being dryed by the ſprinkling of ſalt upon them, are unmeet for food, for a certain man going about to ſalt a Hare, made it like unto a dryed VVeaſel. Some have written that the fleſh of a Hedge-hog dried, doth very much profit thoſe which are troubled with an outward or inward leproſie: which if it can effect, it will more ſtrongly have a drying force or power: even as the fleſh of a VVeaſel being dryed, and drunk in wine, expelleth poyſon. A vulgar VVeaſel being kept very old, and drunk in wine, to the quantity of two drams, is accounted a preſent remedy againſt the venom or ſtings of Serpents.

Galen.

Pliny.

A young VVeaſel being prepared, as is before ſaid, that is to ſay embowelled with ſalt, is of good force againſt all ill medicines. A VVeaſel uſed in the ſame manner doth preſently cure the bites of Serpents. A VVeaſel being burnt and dryed, eſpecially the belly thereof, is accounted an excellent remedy againſt the bitings of any other wilde beaſt. Some ſmall part of the belly of a young VVeaſel, to the quantity of two drams being ſtuffed with Coriander, and drunk in wine, is given to thoſe that are ſmitten by Serpents, and is curable for them. The fleſh of a VVeaſel being burnt, mingled with Rue and wine, and ſo drunk, is very medicinable for the curing of the bites of all creatures. The young whelps of VVeaſels being imbowelled with ſalt, is very profitable for the healing of the deadly ſtinging or biting of the Spider called *Phalangium*.

Albertus.

The whelp of a Weaſel doth cure the venemous bitings of the Shrew. The fleſh of a Weaſel being dryed, doth ſtrongly drie and ſeparate, by both which forces thoſe are healed which are troubled with the Falling ſickneſſe having drunk it in wine. This vertue is alſo attributed unto the bloud of Weaſels. A Weaſel being dryed and drunk in wine, doth heal thoſe that are troubled with the Palſie or ſhaking of the joynts. Concerning the powder of Weaſels, there are many things read: But *Galen* writeth, that he never burned this creature, that he might try the excellency thereof. The bloud and powder of a Weaſel are very profitable, being anoynted on thoſe whoſe bodies are vext with the leproſie, according to the ſaying of *Serenus* in theſe verſes;

Serenus.

————————— Elephanti
Morbo adverſus erit cedri de cortice ſuccus,
Muſtelæve cinis vel fuſus ſanguis ab illa.

Myrepſus.

The powder of a Weaſel being mingled with the bloud of a young Swallow doth heal the Quinſie or Squinzie, the inflamation of the jawes, as alſo thoſe which are grieved with the ſtrangury, being either taken in bread or in drink. The ſame is alſo very effectuall for the expelling of wens or bunches in the body, and healeth thoſe which are troubled with the Falling ſickneſſe, being dayly taken in drink. The ſame diſeaſes are both healed by this medicine, to burn a living Weaſel altogether in an earthen pot, and to mingle with the powder thereof Hony, Turpentine, and Butter, of each a ſufficient quantity, and in the manner of an Oyntment, to apply it unto the bodies of the grieved parties. The bloud of a Swallow and a Weaſel are commended by ſome to be very congruent and agreeable, but *Pliny*, *Avicenna*, and the reſt of the antient writers commend the blood of a Weaſel only to be very medicinable for theſe diſeaſes following; namely, the Falling ſickneſs, the Foul evil, and the head-ache.

Pliny. The powder of a Weaſel being mingled in water, and given to one that is mad or frenzy to drink, is reported by ſome to be very good and profitable for him, if ſo be that they can compell the frantick perſon to perceive it. The powder of a Weaſel is very effectuall for the expelling or taking away of the pin and web in the eyes. There is a ſpeedy remedy for the driving away of rheum in the head, and the Catarrh ſwelling by rheum in the jawes, which is this, To take a Weaſel upon a Thurſday in the old Moon, and put him alive in an unburned pot, that in the Boyling he may be torn, and dryed into powder, which powder being gathered together and well tempered with Hony, to give it to the diſeaſed perſon every day in a ſpoon faſting, to the quantity of three drams, and it will in ſhort ſpace wonderfully eaſe him.

Galen. A Weaſel being burnt, and the powder thereof wrapped in ſome ſear-cloth which is anoynted over with the Oyl of Flower-deluces, doth help and heal all ſores or impoſtumes proceeding from the head to the ears, being applyed thereunto. A VVeaſel being beaten to powder, mingled with wax, and in the manner of a ſear-cloth applyed unto the ſhoulders, doth expell all pains, aches, or griefs therein whatſoever; it doth alſo purge or cleanſe ſores very effectually, according to theſe Verſes of *Serenus* following;

> *Obſcœnos ſi pone locos nova vulnera carpant,*
> *Horrentum manſa curantur fronde ruborum.*
> *Et ſi jam veteri ſuccedit fiſtula morbo;*
> *Muſtelæ cinere immiſſo purgabitur ulcus,*
> *Sanguine cum ricini, quem bos geſtaverit ante.*

Dioſcorides. A VVeaſel being burned in an earthen pot, is very medicinable for the curing of the gout. The powder thereof being mingled with Vinegar, and in that manner thereunto applyed. The duſt of a living VVeaſel burnt, mingled with wax Roſe-water, and anoynted with a Feather upon gouty legs, cureth the ſame diſeaſe. The brain of a VVeaſel being kept very long, and throughly dried, afterwards mingled with Vinegar, and ſo drunk, doth very effectually cure the falling ſickneſſe.

Raſis. The brains of a Camel mingled with the brains of a VVeaſel, being both well dryed, and drunk in Vinegar, ſpeedily helpeth thoſe which are troubled with the diſeaſe called the Foul evill. If a horſe ſhall fall into a ſuddain diſeaſe (being for the moſt part termed dangerous) which our Countreymen call *Raech*, concerning which I have ſpoken in the Horſe, he is cured by ſome Horſe-courſers by a ſmall quantity of a VVeaſels skin, being about the bigneſſe of a foreſaid golden Crown) which is given to him inwardly, whether in a potion by ſome horn, or cut ſmall and mingled with chaffe, I know not. Some do give to the Horſes troubled with the aforeſaid diſeaſe the tail of a white VVeaſel being half black, and half white, cut exceeding ſmall in their chaffe or provender. If a Serpent or any other venemous creature ſhall ſting or bite an Oxe, let the wounded place be ſtroked or ſmoothed with the skin of a VVeaſel, and it ſhall in ſhort time be perfectly cured. The ſame they do in a manner command to be done to Horſes which are ſo ſtung or bitten, rubbing the wound with a Weaſels skin untill it wax hot, miniſtring in the mean time ſome certain Antidote within the Horſes body. There are ſome alſo which are of opinion that the skin being in the ſaid manner applyed, is of no efficacy, but that the whole beaſt being cut and applyed while it is hot, will rather profit, which both in a Shrew, as alſo in many other creatures is manifeſt.

Archigenes. The bloud of a Weaſel being anoynted upon any impoſtume ariſing behinde the ear, doth inſtantly cauſe the ſwelling to ceaſe, or being broken, doth ſpeedily heal the ſore. The ſame alſo being anoynted upon any impoſtumes in the head either whole or broken, doth very effectually cure them. The bloud of a Weaſel being anoynted upon wens or bunches of fleſh in any part of the body doth inſtantly expell them. The ſame doth alſo help thoſe which are troubled with the Falling ſickneſſe: which diſeaſe is alſo cured by the whole body of a VVeaſel either burnt or *Iſidorus.* embowelled with ſalt. The head and feet of a VVeaſel being caſt away, and the body taken in any kinde of drink, doth perfectly heal thoſe which are troubled with that peſtiferous diſeaſe called S. *Johns* evil. The bloud of the ſame ſame beaſt is an excellent remedy for the expelling of the foul evil. The bloud of a Weaſel being anoynted upon broken or exulcerated bunches in the fleſh, doth not only mitigate the pain, but alſo heal the wounds. The bloud of a Weaſel being anoynted upon the jawes, doth heal all pains or ſores therein whatſoever. The powder and bloud of a Weaſel being both mingled together, and anoynted upon the body of any leprous man, doth in ſhort time drive away all ſcabs or ſcurfs thereon. The bloud of a VVeaſel being anointed with a Plantain upon the legs or feet of any one that is troubled with the gout, doth very ſpeedily mitigate or aſſwage the pain thereof. The ſame being anoynted upon the nervs or ſinewes which are ſhrunk together, *Galen.* doth eaſily mollifie them again, and looſen the grievous pain either in the joynts or articles. The liver of a VVeaſel mingled with his own brains, being both well dryed, and taken in any kinde of drink, doth very much profit thoſe which are troubled with the diſeaſe called S. *Johns* evil. The liver of a VVeaſel, being throughly dryed, and afterwards taken in water to drink, doth heal the diſeaſe called the Foul evil, taking hold of ſenſe and minde together: but there muſt great care be had that this medicine be miniſtred unto the ſick party, even when the diſeaſe is coming on him. The gall of a Hare being mingled with the liver of a VVeaſel to the quantity of three drams, one dram of Oyl of Beavers ſtones, four drams of Myrrhe, with one dram of Vinegar,

and

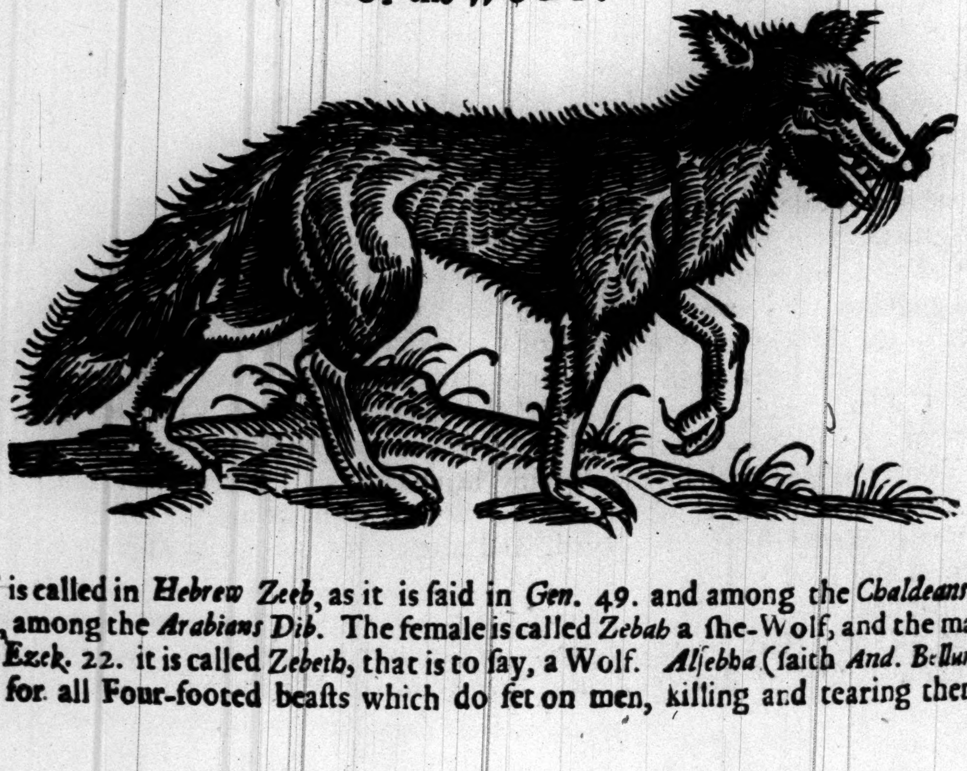
Sextus. *Pliny.* *Kiranides.*

and drunk in hony, or baſtard wine, doth heal thoſe which are troubled with a dizzineſſe or certain ſwimming in the head. The liver of a Weaſel is reported to be very good and medicinable for the curing of the Lethargy, or Dropſie evil. The liver of a Weaſel being bound to the left foot of a woman, doth altogether hinder her from conception. The gall of a Weaſel is a very excellent and effectuall remedy againſt the venom or poyſon of Aſps, being taken in any kinde of drink. The yard of a Weaſel, Hart, or Doe, being dried, and beaten to powder, and taken in wine, or any other drink, is an excellent medicine for the curing of the bites or ſtings of Serpents. The yard of a Weaſel or Ferret, is commended for a very excellent remedy againſt the ſtrangury, or diſeaſe called the Colick and ſtone. The ſtones of a male Weaſel, or the ſecret parts of a female Weaſel, is reported by ſome to be very medicinable for the curing of the Falling ſickneſſe. The ſtones of a Weaſel being bound unto any part of a woman while ſhe is in travail of childe birth, doth altogether hinder her from her delivery. By the left ſtone of a Weaſel being bound in a piece of a Mules hide, there is a certain medicine made, which being drunk by any woman not being with childe, cauſeth barrenneſſe, as alſo by women being with childe, hard and grievous pain in delivery. The efficacy or force in them, have the ſtones of a Weaſel being cut off in the change of the Moon, and he ſuffered to go away alive, being tied upon any part of a woman in the hide of a Mule. The heel of a living Weaſel being taken away and bound unto a woman, doth make her that ſhe ſhall not conceive ſo long as ſhe ſhall ſo bear it. The powder of a Dogs head dried, being put into any broken or exulcerated ſores, doth eat away all the corruption or dead fleſh encreaſing therein. The ſame vertue hath the powder of Weaſels dung, being uſed in the ſaid manner.

Æginetta. *Avicenna.* *Ælianus.*

The dung of Mice or of a Weaſel, being anoynted upon the head, is an excellent remedy for the falling off of the hair on the head, or any other part of mans body, and doth alſo cure the diſeaſe called by ſome the Foxes evil. The biting of a Weaſel is reported by ſome to be very venemous, and in his ravening or madneſſe not to be leſſe hurtfull then the bitings of mad Dogs. For Weaſels and Foxes are very often mad. But *Arnoldus* is of a contrary opinion, and affirmeth that the Weaſel doth more hurt by his biting, then by any venom he can put forth. Others alſo do affirm, that there is venom in Weaſels for this cauſe, that in all kinde of Weaſels when they are angry, the force of their ſmell is ſo rank and ſtrong. The beſt way to drive away Mice, is by ſcattering the powder of Weaſels or Cats dung up and down, the ſavour whereof Mice cannot abide, but the ſame being made into ſome certain kinde of bread will ſmell more ſtrongly. That the bites of a Weaſel are venemous and deadly, there is an example written by *Ariſtides*, of a certain man, who being bitten by a Weaſel, and ready to die, gave a great ſigh, and ſaid, that if he had died by a Lyon or Panther, it would never have grieved him, but to die by the biting of ſuch an ignoble beaſt, it grieved him worſe then his death. The biting of a Weaſel doth bring very quick and grievous pain, which is only known by the colour, being dusky or blewiſh: and it is cured by Onions and Garlick, either applyed outward, or taken in drink, ſo that the party drink ſweet wine thereon. Unripe Figs alſo mingled with the flour of the grain called *Orobos*, doth much profit the ſame. Treacle in like manner being applyed in the manner of a plaiſter, ſpeedily cureth them. Garlick being mingled with Fig-tree leaves and Cinamon, and ſo beaten together, are very well applyed to the ſaid bites. It cometh alſo to paſſe, that ſometimes the Weaſel biteth ſome Cattell, which preſently killeth them, except there be ſome inſtant remedy. The remedy for it is this, to rub the wounded place with a piece of a Weaſels skin well dryed untill it waxe hot, and in the mean time give the beſt Treacle to drink in the manner of an antidote. The Weaſel uſually biteth Cowes dugs, which when they are ſwollen if they be rubbed with a Weaſels skin they are inſtantly healed.

Of the *WOLF.*



The ſeverall names. *Æſculapius.*

A Wolf is called in *Hebrew Zeeb*, as it is ſaid in *Gen.* 49. and among the *Chaldeans*, *Deeba* and *Deba*, among the *Arabians Dib*. The female is called *Zebab* a ſhe-Wolf, and the maſculine *Zeebim*, but in *Ezek.* 22. it is called *Zebeth*, that is to ſay, a Wolf. *Alſebba* (ſaith *And. Bellun.*) is a common name for all Four-footed beaſts which do ſet on men, killing and tearing them in pieces, devouring them with their teeth and clawes, as a Lyon, a Wolf, a Tiger, and ſuch like, whereon they are ſaid to have the behaviour of *Alſebba*, that is, wilde beaſts which are fierce and cruel. From hence happily cometh it, that not only *Albertus*, but alſo ſome ignorant Writers do attribute unto a Wolf many things which *Ariſtotle* hath uttered concerning a Lyon.

Oppianus among the other kinde of Wolves hath demonſtrated one which is bred in *Cilicia*. And alſo he doth write, that it is called in the mountains of *Taurus* and *Amanus*, *Chryſeon*, that is to ſay, *Aureum*, but I conjecture that in thoſe places it was called after the language of the *Hebrewes* or *Syrians* which do call *Sabab*, or *Schab aurum*, and *Seeb Lupum* for a Wolf, or *Dabab*, or *Debab* for *Aurum*: They alſo do call *Deeb* or *Deeba* for a Wolf. *Dib* (othertherwiſe *Dijb*) is an *Arabian* or *Saracenican* word: Alſo the tranſlation of this word in the book of medicines is divers, as *Adib*, *Adep*, *Adbip*, and *Aldip*: but I have preferred the laſt tranſlation, which alſo *Bellunenſis* doth uſe. *Aldip Alambat* doth ſignifie a mad or furious Wolf. The Wolf which *Oppianus* doth call *Aureum*, as I have ſaid even now, doth ſeem to agree to this kinde, both by ſignification of the name *Aurum*, and alſo by the nature, becauſe it doth go under a Dog cloſe to the earth, to eſchew the heat of the Summer, which *Oppianus* doth write, doth ſeek his food out of hollow places, as a Hyena or *Dabb* doth out of graves where the dead men are buryed. The golden coloured Wolf is alſo more rough and hairy then the reſidue, even as the Hyena is ſaid to be rough and maned. And alſo theſe Wolves necks in *India* are maned, but it differeth according to the nation and colour where there are any Wolves at all.

The notation of *Lupus* and *Lycos*.

Lycos a Wolf among the *Grecians*, and *Lugos*, and *Lucania*, and *Lycos*, among ſome of the *Arabican* Writers, is borrowed from them, as *Munſter* hath noted in his Lexicon of three languages. In *Italy* it is called *Lupo*. In *French Loup*, in *Spain Lobo*, in *Germany Vulff*, in *England Wolf*. In *Illyria Vulk*, as it were by a tranſpoſition of the letters of the *Greek* word. Now becauſe both men, women, Cities, places, Mountains, Villages, and many artificiall inſtruments have their names from the *Latine* and *Greek* words of this beaſt, it is not vain or idle to touch both them and the derivation of them, before we proceed to the naturall ſtory of this beaſt. *Lupus* as ſome ſay in *Latine* is *Quaſi Leopos*, Lyon-footed; becauſe that it reſembleth a Lyon in his feet, and therefore *Iſidorus* writeth, that nothing liveth that it preſſeth or treadeth upon in wrath. Other derive it from *Lukes*, the *light*, becauſe in the twilight of the evening or morning it devoureth his prey, avoiding both extreme light, as the noon day, and alſo extreme darkneſſe as the night. The *Grecians* do alſo call them *Nycterinoi canes*, dogs of the night. *Lupa* and *lupula* were the names of noble devouring Harlots, and from thenceforth cometh *Lupanar* for the ſtewes. It is doubtfull whether the nurſe of *Romulus* and *Remus* were a Harlot, or ſhe-wolf, I rather think it was a Harlot then a Wolf that nurſed thoſe children. For we read of the wife of *Foſtulus*, which was called *Laurentia*, after ſhe had played the whore with certain Shepherds was called *Lupa*. In all Nations there are ſome mens names derived from Wolves, therefore we read of *Lupus* a *Roman* Poet, *Lupus Servatus* a Prieſt or Elder, of *Lupus de Oliveto* a *Spaniſh* Monk, of *Fulvus Lupinus* a *Roman*, and the *Germans* have *Vulf*, *Vulfe*, Hart, *Vulfegang*.

Named apellatives derived from a Wolf.

The *Grecians* have *Lycambes*, of whom it is reported he had a daughter called *Neobole*, which he promiſed in marriage to *Archilochus* the Poet, yet afterwards he repented and would not perform his promiſe, for which cauſe the Poet wrote againſt him many bitter Verſes, and therefore *Lycambes* when he came to knowledge of them, dyed for grief. *Lycaon* was a common name among the *Grecians* for many men, as *Lycaon Gnotius* an excellent maker of edged tools. *Lycaon* the brother of *Neſtor* another, the ſon of *Priamus* ſlain by *Achilles*: But the famous and notorious among all, was *Lycaon*, the King of *Arcadia*, the ſon of *Titan* and the earth, whoſe Daughter *Caliſto* was deflowred by *Jupiter*, and by *Juno* turned into a Bear, whom afterwards *Juno* pitying, placed for a ſign in heaven, and of whom *Virgil* made this Verſe;

Pleiadas, Hyadas, claramque Lycaonis Arcton.

There was another *Lycaon* the ſon of *Pelaſgus*, which built the City *Lycoſui*, in the Mountain *Lyceus*, this man called *Jupiter Lyceus*, upon a time ſacrificed an Infant upon his Altar, after which ſacrifice he was preſently turned into a Wolf. There was another *Lycaon* after him, who did likewiſe ſacrifice another childe, and it was ſaid, that he remained ten years a Wolf, and afterwards became a man again: whereof the reaſon was given, that during the time he remained a beaſt, he never taſted of mans fleſh, but if he had taſted thereof he ſhould have remained a beaſt for ever. I might adde hereunto *Lycophron*, *Lycaſtus*, *Lycimnius*, *Lycinus*, *Lycomedes*, *Lycurgus*, *Lycus*, and of womens names, *Lyca*, *Lyce*, *Lycaſte*, *Lycoris*, *Lycias*, and many ſuch others, beſides the names of people, as *Irpinia*, of Mountains and places, as *Lycabetus*, *Lyceus*, *Lycerna*, *Lycaonia*, *Lycaſpus*, *Lyceum Ariſtotles* School. Of flouds and Rivers, as *Lycus*, *Lycormas*. Of Plants, as Wolfbane, *Lupum ſalictarium*, *Lupinus*, *Lycantheum*, *Lycophrix*, *Lycophone*, *Lycopſis*, *Lycoſcitalion*, and many ſuch others, whereof I have only deſired to give the Reader a taſte, following the ſame method that we have obſerved in other beaſts: And thus much ſhall ſuffice to have ſpoken of the names of this beaſt.

Countreys breeding Wolves.

The Countreyes breeding Wolves, are for the moſt part theſe that follow. The inhabitants of *Crete* were wont to ſay, that there was neither Wolves, Bears, nor Vipers could be bred in their Iland, becauſe *Jupiter* was born there; yet there is in a City called *Lycaſtus*, (ſo named for the multitude of Wolves that were abiding therein.) It is likewiſe affirmed of *Sardinia*, and *Olympus*, a Mountain of *Macedonia*, that there come no Wolves in them. The Wolves of *Egypt* are leſſer then the Wolves of *Greece*, for they exceed not the quantity of Foxes. *Africa* likewiſe breedeth ſmall Wolves, they abound in *Arabia*, *Swevia*, *Rhetia*, *Atheſis*, and the Earldome of *Tyrol* in *Muſcovia*, eſpecially that part that bordereth upon *Lituania*. The Wolves of *Scanzia*, by reaſon of extremity of cold in thoſe parts, are blinde and loſe their eyes: There are no Wolves bred in *Lombardy* beyond the *Alpes*, and if any chance to come into that Countrey, preſently they ring their Bells, and arm themſelves againſt them, never giving over till they have killed him, or drove him out of the Countrey. In *Norway* there are three kinde of Wolves, and in *Scandinavia* the Wolves fight with Elks. It is reported that there are Wolves in *Italy*, who when they look upon a man, cauſe him to be ſilent that he cannot ſpeak. The *French* men call thoſe Wolves which have eaten of the fleſh of men *Encharnes*. Among the *Crotoniatæ* in *Meotis*, and divers other parts of the world, Wolves do abound: there are ſome few in *France*, but none at all in *England*, except ſuch as are kept in the Tower of *London*, to be ſeen by the Prince and people, brought out of other Countreys, where there fell out a rare accident, namely, a Maſtive Dog was limed to a ſhe-Wolf, and ſhe thereby conceived, and brought forth ſix or ſeven young Whelps, which was in the year of our Lord 1605. or thereabouts.

The ſeverall kindes of Wolves.

There are divers kindes of Wolves in the world, whereof *Oppianus* in his admonition to Shepherds, maketh mention of five, the firſt is a ſwift Wolf, and runneth faſt, called therefore *Toxeuter*, that is, *Sagittarius*, a ſhooter. The ſecond kinde are called *Harpages*, and theſe are the greateſt raveners, to whom our Saviour Chriſt in the Goſpel compareth falſe Prophets, when he ſaith, *Take heed of falſe Prophets which come unto you in Sheeps clothing, but are inwardly Lyco Harpages, ravening Wolves*; and theſe excell in this kinde. The third kinde is called *Lupus aureus* a golden Wolf, by reaſon of his colour; then they make mention of two other kindes, (called *Acmonæ*) and one of them peculiarly *Ictinus*.

Oppianus.

The firſt, which is ſwift, hath a greater head then other Wolves, and likewiſe greater legs fitted to run, white ſpots on the belly, round members, his colour betwixt red and yellow, he is very bold, howleth fearfully, having fiery-flaming eyes, and continually wagging his head. The ſecond kinde hath a greater and larger body then this, being ſwifter then all other; betimes in the morning he being very hungry, goeth abroad to hunt his prey, the ſides and tail are of a ſilver colour, he inhabiteth in the Mountains, except in the Winter time, wherein he deſcendeth to the gates of Cities or Towns, and boldly without fear killeth both Goats and Sheep, yet by ſtealth and ſecretly.

The third kinde inhabiteth the white Rocks of *Taurus* and *Silicia*, or the the tops of the hill *Amanus*, and ſuch other ſharp and inacceſſible places, being worthily for beauty preferred before the others, becauſe of his golden reſplendent hairs: and therefore my Author ſaith, *Non Lupus ſed Lupo præſtantior fera*. That he is not a Wolf, but ſome wilde beaſt excelling a Wolf. He is exceeding ſtrong, eſpecially being able with his mouth and teeth to bite aſunder not only ſtones, but Braſſe and Iron: He feareth the Dog ſtar, and heat of Summer, rejoycing more in cold then in warm weather, therefore in the Dog dayes he hideth himſelf in ſome pit or gaping of the earth, untill that Sunny heat be abated. The fourth and fifth kindes are called by one common name *Acmone*, now *Acmon* ſignifieth an Eagle, or elſe an Inſtrument with a ſhort neck, and it may be that theſe are ſo called in reſemblance of the ravening Eagle, or elſe becauſe their bodies are like to that inſtrument, for they have ſhort necks, broad ſhoulders, rough legs and feet, and ſmall ſnowts, and little eyes: herein they differ one kinde from the other, becauſe that one of them hath a back of a ſilver colour, and a white belly, and the lower part of the feet black, and this is *Ictinus canus*, a gray Kite-wolf; the other is black, having a leſſer body, his hair ſtanding continually upright, and liveth by hunting of Hares. Now generally all Authors do make ſome two, ſome three, ſome four, and ſome five kindes of Wolves, all which is needleſſe for me to proſecute, and therefore I will content my ſelf with the only naming of ſuch differences as are obſerved in them, and already expreſſed, except the *Thoes* and the ſea-Wolf, of whom there ſhall be ſomething ſaid particularly in the end of this Hiſtory. *Olaus Magnus* writeth, in his Hiſtory of the Northern Regions, that in the Mountains called *Doffrini*, which do divide the Kingdomes of *Swetia* and *Norway*, there are great flocks or heards of Wolves of white colour, whereof ſome wander in the Mountains, and ſome in the vallies. They feed upon little, ſmall, and weak creatures, but there are alſo wilde common Wolves, who lie in wait to deſtroy their herds of Cattell, and flocks of Sheep, againſt whom the people of the Countrey do ordain generall huntings, taking more care to deſtroy the young ones then the old, that ſo the breeders and hope of continuance may be taken away. And ſome alſo do keep of the Whelps alive, ſhutting of them up cloſe and taming them, eſpecially females, who afterwards engender with Dogs, whoſe Whelps are the moſt excellent keepers of flocks, and the moſt enemies to Wolves of all other.

Wolves are not wilde Dogs.

There be ſome have thought that Dogs and Wolves are one kinde; namely, that vulgar Dogs are tame Wolves, and ravening Wolves are wilde Dogs. But *Scaliger* hath learnedly confuted this opinion, ſhewing that they are two diſtinct kindes, not joyned together in nature, nor in any natural action, except by conſtraint; for he ſaith, that there are divers wild Dogs that are not Wolves, and ſo have continued for many years in a hill called *Mountfalcon*, altogether refuſing the ſociety and ſervice of men, yea, ſometimes killing and eating them; and they have neither the face, nor the voyce, nor the ſtature, nor the conditions of Wolves, for in their greateſt extremity of hunger. they never ſet upon flocks of Sheep: ſo that it is unreaſonable to affirm, that Wolves are wilde Dogs, although it muſt needs be confeſſed, that in outward proportion they are very like unto them.

The voices of Wolfs.

Some have thought that Wolfs cannot bark, but that is falſe (as *Albertus* writeth) upon his own knowledge, the voyce of Wolfs is called *Vlulatus*, howling, according to theſe verſes;

Aſt Lupus ipſe ululat, frendet agreſtis aper,
And again:
Per noctem reſonare Lupis ululantibus urbes.

It ſhould ſeem that the word *Vlulatus*, which the *Germans* tranſlate *Heulen*; the *French*, *Hurler*; and we in *Engliſh*, howling, is derived either from imitation of the beaſts voice; or from a night whooping Bird called *Vlula*, I will not contend, but leave the Reader to either of both, for it may be that it cometh from the *Greek* word *Ololuzein*, which ſignifieth to mourn and howl after a lamentable manner, and ſo indeed Wolfs do never howl, but when they are oppreſſed with famin: And thus I leave the diſcourſe of their voyce with the Annotation of *Servius*: *Vlulare Canum eſt & Furiarum*. To howl is the voyce of Dogs and Furies. Although there be great difference of colors in Wolfs, as already I have ſhewed, yet moſt commonly they are gray and hoary, that is, white mixed with other colours, and therefore the *Grecians* in imitation thereof, do call their twy-light which is betwixt day and night, as it were participating of black and white *Lycophos*, Wolf-light, becauſe the upper ſide of the Wolfs hair is brown, and the neather part white. It is ſaid, that the ſhaggy hair of a Wolf is full of vermin and worms, and it may well be, for it hath been proved, that the skin of a Sheep which was killed by a Wolf breedeth worms.

The ſeveral parts.

The brains of a Wolf do decreaſe and increaſe with the Moon, and their eyes are yellow, black, and very bright, ſending forth beams like fire, and carrying in them apparent tokens of wrath and malice; and for this cauſe it is ſaid, they ſee better in the night then in the day, being herein unlike unto men, that ſee better in the day then in the night, for reaſon giveth light to their eyes, and appetite to beaſts, and therefore of ancient time the Wolf was dedicated to the Sun, for the quickneſs of his ſeeing ſenſe, and becauſe he ſeeth far. And ſuch as is the quickneſs of his ſenſe in ſeeing, ſuch alſo it is in ſmelling, for it is reported, that in time of hunger by the benefit of the winde, he ſmelleth his prey a mile and a half or two mile off: for their teeth they are called *Charcharodontes*, that is ſawed, yet they are ſmooth, ſharp, and unequal, and therefore bite deep, as we have ſhewed already, for this cauſe the ſharpeſt bits of Horſes are called *Lupata*.

Cœlius.
Stumpſius.

All beaſts that are devourers of fleſh do open their mouths wide, that they may bite more ſtrongly, and eſpecially the Wolf. The neck of a Wolf ſtandeth on a ſtraight bone that cannot well bend, therefore like the Hyæna, when he would look backwards he muſt turn round about, the ſame neck is ſhort, which argueth a treacherous nature. It is ſaid that if the heart of a Wolf be kept dry, it rendreth a moſt fragrant or ſweet ſmelling ſavour. The liver of a Wolf is like to a Horſes hoof, and in the bladder there is called a certain ſtone call'd *Syrites*, being in colour like Saffron or Hony, yet inwardly contains certain weak ſhining ſtars: this is not the ſtone called *Syriacus* or *Indicus*, which is deſired for the vertue of it againſt the ſtone in the bladder. The fore-feet have five diſtinct toes, and the hinder-feet but four, becauſe the fore-feet ſerve in ſtead of hands, in Lions, Dogs, Wolfs, and Panthers. We have ſpoken already of their celerity in running, and therefore they are not compared to Lions which go foot by foot, but unto the ſwifteſt Dogs. It is ſaid they will ſwim, and go into the water two by two, every one hanging upon anothers tail, which they take in their mouths, and therefore they are compared to the days of the year, which do ſucceſſively follow one another, being therefore called *Lucabas*. For by this ſucceſſive ſwimming they are better ſtrengthened againſt impreſſion of the floods, and not loſt in the waters by any over-flowing waves or billows. Great is the voracity of this beaſt, for they are ſo inſatiable that they devour hair and bones with the fleſh which they eat, for which cauſe they render it whole again in their excrements, and therefore they never grow fat. It was well ſaid of a learned man: *Lupus vorat potius quam comedit carnes, & pauco utitur potu.* That is, A Wolf is ſaid rather to raven then to eat his meat. When they are hungry they rage much, and although they be nouriſhed tame, yet can they not abide any man to look upon them while they eat; when they are once ſatisfied, they endure hunger a great time, for their bellies ſtandeth out, their tongue ſwelleth, their mouth is ſtopped, for when they have drove away their hunger with abundance of meat, they are unto men and beaſts as meek as Lambs, till they be hungry again, neither are they moved to rapine, though they go through a flock of ſheep: but in ſhort time after, their bellies and tongue are calling for more meat, and then ſaith mine Author: *In antiquam figuram redit, iterumqne Lupus exiſtit.* That is, They return to their former conditions, and become as ravening as before. Neither ought this to ſeem ſtrange unto any man, for the like things are formerly reported of the Lion; and it is ſaid that Wolfs are moſt dangerous to be met with all towards the evening, becauſe of their faſting all the day before, and for this is alleadged the ſaying of holy Scripture where the Prophet makes mention of *Lupi Veſpertini*, but we have ſhewed already in the ſtory of the Hyæna, what thoſe ſignifie.

The meat and voracity of Wolfs.

Ælianus.
Philes.

It is ſaid that Wolfs do alſo eat a kinde of earth called *Argilla*, which they do not for hunger, but to make their bellies waigh heavy, to the intent, that when they ſet upon an Horſe, an Ox, a Hart, an Elk, or ſome ſuch ſtrong beaſt, they may weigh the heavier, and hang faſt at their throats till they have pulled them down; for by vertue of that tenacious earth, their teeth are ſharpened, and the weight of their bodies encreaſed; but when they have killed the beaſt that they ſet upon, before they touch any part of his fleſh, by a kinde of natural vomit, they diſgorge Albertus. themſelves, and empty their bellies of the earth, as unprofitable food.

The remainder of their meat they always cover in the earth; and if there be many of them in hunting together, they equally divide the prey among them all, and ſometimes it is ſaid, that they howl and call their fellows to that feaſt which are abſent, if their prey be plentiful. Now this they have common with Lions, in their greateſt extremity of hunger, that when they have election of a man and a beaſt, they forſake the man and take the beaſt. Some are of opinion, that when they are old, they grow weary of their lives, and that therefore they come unto Cities and Villages, offering themſelves to be killed by men, but this thing by the relation of *Niphus* is a very fable; for he profeſſeth that he ſaw an old Wolf come into a Village, and ſet upon a Virgin to deſtroy and eat her, yet he was ſo old that he had ſcarſe any teeth in his head, but by good hap company being at hand, the Maid was ſaved, and the Wolf was killed.

Now thoſe Wolfs that are moſt ſluggiſh and leaſt given to hunting, are moſt ready to venture upon men, becauſe they love not to take much pains in getting their living: This Wolf is called *Vinipeta*, but the induſtrious hunting Wolf *Kunegeiſeia*. It is reported that a Wolf will never venture upon a living man, except he have formerly taſted of the fleſh of a dead man, but of theſe things I have no certainty, but rather do believe the contrary; that like as Tyrants in an evill grieved eſtate, do pick quarrels againſt every man that is rich for the ſpoil of their goods, accounting them their enemies, how well ſoever they have deſerved at their hands: In like manner, Wolfs in the time of their hunger fall upon all creatures that come in the way, whether they be men or beaſts, without partiality, to fill their bellies, and that eſpecially in the winter time, wherein they are not afraid to come to Houſes and Cities.

They devour Dogs when they get them alone, and Elks in the Kingdom of *Norway*, but for Dogs it hath been ſeen, that they have lived in a kinde of ſociety and fellowſhip with Wolfs, but it was to ſteal and devour in the night time, like as Theeves do cover their malice and ſecret grudges one to other, when they are going about to rob true men. Wolfs are enemies to Aſſes, Bulls, and Foxes, for they feed upon their fleſh, and there is no beaſt that they take more eaſily then an Aſs, killing him without all danger, as we have ſhewed already in the ſtory of an Aſs.

They alſo devour Goats and Swine of all ſorts, except Boars, who do not eaſily yeeld unto Wolfs. It is ſaid that a Sow hath reſiſted a Wolf, and that when he fighteth with her, he is forced to uſe his greateſt craft and ſubtlety, leaping to and from her with his beſt activity, leſt ſhe ſhould lay her teeth upon him, and ſo at one time deceive him of his prey, and deprive him of his life. It is reported of one that ſaw a Wolf in a Wood, take in his mouth a piece of Timber of ſome thirty or forty pound weight, and with that he did practiſe to leap over the trunk of a tree thas lay upon the earth; at length when he perceived his own ability and dexterity in leaping with that weight in his mouth, he did there make his cave and lodged behinde that tree; at laſt it fortuned there came a wilde Sow to ſeek for meat along by that tree, with divers of her Pigs following her, of different age, ſome a year old, ſome half a year, and ſome leſs. When he ſaw them near him, he ſuddenly ſet upon one of them, which he conjectured was about the weight of wood which he carryed in his mouth, and when he had taken him, whileſt the old Sow came to deliver her Pig at his firſt crying, he ſuddenly leaped over the tree with the Pig in his mouth, and ſo was the poor Sow beguiled of her young one, for ſhe could not leap after him, and yet might ſtand and ſee the Wolf to eat the Pig which he had taken from her. It is alſo ſaid, that when they will deceive Goats, they come unto them with the green leaves and ſmall boughs of Oſiers in their mouths, wherewithal they know Goats are delighted, that ſo they may draw them therewith, as to a bait to devour them.

Their manner is when they fall upon a Goat or a Hog, or ſome ſuch other Beaſt of ſmall ſtature, not to kill them, but to lead them by the ear with all the ſpeed they can drive them to their fellow Wolfs, and if the beaſt be ſtubborn and will not run with him, then he beateth his hinder-parts with his tail, in the mean time holding his ear faſt in his mouth, whereby he cauſeth the poor Beaſt to run as faſt or faſter then himſelf unto the place of his own execution, where he findeth a crew of ravening Wolfs to entertain him, who at his firſt appearance ſeize upon him, and like Devils tear him in pieces in a moment, leaving nothing uneaten but only his bowels.

But if it be a Swine that is ſo gotten, then it is ſaid, that they lead him to the waters, and there kill him, for if they eat him not out of cold water, their teeth doth burn with an untolerable heat. The Harts when they have loſt their horns do lie in ſecret, feeding by night for fear of the Wolfs, untill their horns do grow again, which are their chiefeſt defence. The leaſt kinde of Wolfs we have ſhewed already, do live upon the hunting of Hares, and generally all of them are enemies to ſheep, for the fooliſh ſheep in the day time is eaſily beguiled by the Wolf, who at the ſight of the Sheep maketh an extraordinary noiſe with his foot, whereby he calleth the fooliſh Sheep unto him, for ſtanding amazed at the noiſe he falleth into his mouth and is devoured: but when the Wolf in the night time cometh unto a fold of Sheep, he firſt of all compaſſeth it round about, watching both the Shepheard and the Dog, whether they be aſleep or awake, for if they be preſent and like to reſiſt, then he departeth without doing any harm, but if they be abſent or aſleep, then loſeth he no opportunity, but entereth into the fold, and falleth a killing, never giving over till he have Textor. deſtroyed all, except he be hindered by the approach of one or other; for his manner is not to Albertus. eat any till he have killed all, not becauſe he feareth the over-livers will tell tales, but for that his inſatiable minde thinketh he can never be ſatisfied, and then when all are ſlain he falleth to eat one of them.

Ælianus.

Now although there be great difference betwixt him and a Bull both in ſtrength and ſtature, yet is he not afraid to adventure combat, truſting in his policy more then his vigor, for when he ſetteth upon a Bull, he cometh not upon the front for fear of his horns, nor yet behinde him for fear of his heels, but firſt of all ſtandeth aloof from him, with his glaring eyes, daring and provoking the Bull, making often proffers, to come near unto him, yet is wiſe enough to keep aloof till he ſpy his advantage, and then he leapeth ſuddenly upon the back of the Bull at the one ſide, and being ſo aſcended, taketh ſuch hold that he killeth the Beaſt before he looſen his teeth. It is alſo worth the obſervation, how he draweth unto him a Calf that wandereth from the dam, for by ſingular treachery he taketh him by the noſe, firſt drawing him forward, and then the poor Beaſt ſtriveth and draweth backward, and thus they ſtruggle together, one pulling one way, and the other another, till at laſt the Wolf perceiving advantage, and feeling when the Calf pulleth heavyeſt, ſuddenly he letteth go his hold, whereby the poor Beaſt falleth back upon his buttocks, and ſo down right upon his back; then flyeth the Wolf to his belly which is then his upper part, and eaſily teareth out his bowels, ſo ſatisfying his hunger-greedy appetite: But if they chance to ſee a Beaſt in the water, or in the marſh, encombred with mire, they come round about him, ſtopping up all the paſſages where he ſhould come out, baying at him, and threatning him, ſo as the poor diſtreſſed Ox plungeth himſelf many times over head and ears, or at the leaſt wiſe they ſo vex him in the mire, that they never ſuffer him to come out alive. At laſt when they perceive him to be dead and clean without life by ſuffocation; it is notable to obſerve their ſingular ſubtilty to draw him out of the mire, whereby they may eat him; for one of them goeth in, and taketh the Beaſt by the tail, who draweth him with all the power he can, for wit without ſtrength may better kill a live Beaſt, then remove a dead one out of the mire: therefore he looketh behinde him and calleth for more help, then preſently another of the Wolfs taketh that firſt Wolfs tail in his mouth, and a third Wolf the ſeconds, a fourth the thirds, a fifth the fourths, and ſo forward, encreaſing their ſtrength, until they have pulled the Beaſt out into the dry land: whereby you may ſee, how they torment and ſtretch their own bodies, biting their tails mutually, pinching and ſtraining every joynt until they have compaſſed their deſire, and that no man ſhould think it ſtrange for a Wolf to kill an Ox; it is reported that *Danaus* did build a Temple to *Apollo* at *Argos*, in the very ſame place where he ſaw a Wolf deſtroy an Ox, becauſe he received inſtruction thereby, that he ſhould be King of *Greece*. Wolfs are alſo enemies to the Buffes, and this is no marvail, ſeeing that it is confidently reported by *Ælianus*, that in time of great famine when they get no meat, they deſtroy one another; for when they meet together, each one bemoaning himſelf to other, as it were by conſent they run round in a circle, and that Wolf which is firſt giddy, being not able to ſtand, falleth down to the ground, and is devoured by the reſidue, for they tear him in pieces, before they can ariſe again.

The harm of Wolfs.

Pliny affirmeth that there be Wolfs in *Italy*, whoſe ſight is hurtful to men, for when a man ſeeth one of them, though he have never ſo much deſire to cry out, yet he hath no power: but the meaning of this is, as we find in other Writers, that if a Wolf firſt ſee a man, the man is ſilent, and cannot ſpeak, but if the man ſee the Wolf, the Wolf is ſilent and cannot cry, otherwiſe the tale is fabulous and ſuperſtitious, and thereupon came the proverb *Lupus in fabula eſt*, to ſignifie ſilence. Now although theſe things are reported by *Plato*, *Ruellius*, *Vincentius*, and *Ambroſe*, yet I rather believe them to be fabulous then true, howbeit *Albertus* writeth, that when a man is in ſuch extremity, if he have power to looſe his cloak or garment from his back, he ſhall recover his voyce again. And *Sextus* ſaith, that in caſe one of theſe Wolfs do ſee a man firſt, if he have about him the tip of a Wolfs tail he ſhall not need to fear any harm. There be a number of ſuch like tales concerning Wolfs and other creatures, (as that of *Pythagoras*) A Beaſt making water upon the urine of a Wolf, ſhall never conceive with young. All domeſtical four-footed Beaſts, which ſee the eye of a Wolf in the hand of a man, will preſently fear and run away.

If the tail of a Wolf be hung in the cratch of Oxen, they can never eat their meat. If a Horſe tread upon the foot-ſteps of a Wolf which is under a Horſe-man or Rider, he breaketh in pieces, or elſe ſtandeth amazed. If a Wolf treadeth in the foot-ſteps of a Horſe which draweth a Waggon, he cleaveth faſt in the rode, as if he were frozen.

If a Mare with Foal tread upon the foot-ſteps of a Wolf, ſhe caſteth her Foal, and therefore the *Egyptians* when they ſignifie abortment, do picture a Mare treading upon a Wolfs foot. Theſe and ſuch other things are reported, (but I cannot tell how true) as ſupernatural accidents in Wolfs. The Wolf alſo laboureth to overcome the Leopard, and followeth him from place to place, but foraſmuch as they dare not adventure upon him ſingle, or hand to hand, they gather multitudes, and ſo devour them. When Wolfs ſet upon wilde Boars, although they be at variance among themſelves, yet they give over their mutual combats, and joyn together againſt the Wolf their common adverſary. For theſe occaſions a Wolf hath evermore been accounted a moſt fierce and wilde Beaſt, as may further appear by this Hiſtory following. When *Euriſtines* and *Procles* intended to marry the Daughter of ſome *Grecian*, that ſo they might joyn themſelves in perpetual league and amity by affinity, they went to *Delphos* to aſk counſel of *Apollo* in what place they ſhould meet with their wives. *Apollo* gave them anſwer, that when they ſhould meet with an extreme wilde Beaſt, as they went into *Lacedemonia*, and yet the ſame Beaſt appear meek and gentle unto them, there they

Orus.

A hiſtory.

ſhould

Men deſtroyed by Wolfs.

ſhould take their wives. When they came into the land of the *Cleonians*, they met with a Wolf carrying a Lamb in his mouth, whereupon they conceived that the meaning of *Apollo* was, that when they met with a Wolf in that Countrey, they might very happily and ſucceſſively take them wives, and ſo they did, for they married with the daughters of *Theſander Cleonymus*, a very honeſt man of that Countrey. It is reported of *Milo Crotoniata*, that valiant ſtrong man, how upon a ſeaſon rending a tree in ſunder in the woods, one of his arms was taken in the cloſing of the tree, and he had not ſtrength enough to looſe it again, but remained there incloſed in moſt horrible torments, until a Wolf came and devoured him.

Cælius.
Tzetzes.

The like ſtory unto this, is that which *Ælianus* reporteth of *Gelon* the *Syracuſan*, a Scholar, unto whom there came a Wolf as he ſat in the School writing on his Tables, and took the writing tables out of his hand The Schoolmaſter being inraged herewith, and knowing himſelf to be a valiant man, took hold of the ſame tables in the Wolfs mouth, and the Wolf drew the Maſter and Scholars in hope of recovery of the tables out of the School into a plain field, where ſuddenly he deſtroyed the Schoolmaſter and a hundred Scholars, ſparing none but *Gelon*, whoſe tables were a bait for that prey, for he was not only not ſlain, but preſerved by the Wolf, to the ſingular admiration of all the world; whereby it was collected, that that accident did not happen naturally, but by the over-ruling hand of God: Now for theſe occaſions, as alſo becauſe that the wooll and skin of beaſts killed by Wolves are good for nothing, (although the fleſh of Sheep is more ſweeter) are unprofitable and good for nothing.

The taking of Wolfs, and the reward of the hunters.

Men have been forced to invent and finde out many deviſes for the deſtroying of Wolfs, for neceſſity hath taught men much learning, and it had been a ſhameful miſery to indure the tyranny of ſuch ſpoiling beaſts, without labouring for reſiſtance and revenge: for this cauſe they propounded alſo a reward to ſuch as killed VVolfs, for by the law of *Draco*, he that killed a young VVolf received a talent, and that killed an old VVolf received two talents.

Solon preſcribed that he that brought a VVolf alive, ſhould receive five pieces of money, and he that brought one dead, ſhould receive two. *Apollo* himſelf was called *Lycoctonos*, a VVolf-killer, becauſe he taught the people how to put away VVolfs. *Homer* calleth *Apollo Lycegenes*, for that it is ſaid immediately after he was born of his mother *Latona*, he was changed into the ſhape of a VVolf, and ſo nouriſhed; and for this cauſe there was the Image of a VVolf ſet up at *Delphos* before him.

Others ſay, that the reaſon of that Image was, becauſe that when the Temple of *Delphos* was robbed, and the treaſure thereof hid in the ground, while diligent inquiſition was made after the theeves, there came a VVolf and brought them to the place where the golden veſſels were covered in the earth, which ſhe pulled out with her feet. And ſome ſay that a VVolf did kill the ſacrileger, as he lay aſleep on the Mountain *Parnaſſus*, having all the treaſure about him, and that every day ſhe came down to the gates of *Delphos* howling, until ſome of the Citizens followed her into the Mountain, where ſhe ſhewed them the theef and the treaſure both together: But I liſt not to follow or ſtand upon theſe fables. The true cauſe why *Apollo* was called a VVolf-killer was, for that he was feigned to be a Shepheard or Herdſman, and therefore in love of his Cattle to whom VVolfs were enemies, he did not only kill them while he was alive, but alſo they were offered unto him in ſacrifice, for VVolfs were ſacred to *Apollo*, *Jupiter*, and *Mars*: and therefore we read of *Apollo Lycius*, or *Lyceus*, to whom there were many Temples builded, and of *Jupiter Lyceus*, the ſacrifices inſtituted unto him called *Lycæa*, and games by the ſame name. There were other holy-days call'd *Lupercalia*, wherein barren women did chaſtiſe themſelves naked, becauſe they bare no children, hoping thereby to gain the fruitfulneſs of the womb, whereof *Ovid* ſpeaketh thus:

Excipe fœcunda patienter verbera dextra:
Jam ſocer optatum nomen habebit avi.

Propertius and ſome other writers ſeem to be of the minde that thoſe were firſt inſtituted by *Fabius Lupercus*, as appeareth by theſe verſes:

Verbera pellitus ſeto ſamovebat arator,
Unde licens Fabius ſacra Lupercus habet.

And *Juvenal* thus:

Nec prodeſt agili palmas præbere Luperco.

Divers policies and inventions to take Wolfs.

Now concerning the manner of taking of VVolfs the Ancients have invented many deviſes and gins, and firſt of all an Iron toil which they ſtill faſten in the earth with Iron pins, upon which pins they ſeave a ring, being in compaſs about the bigneſs of a VVolfs head, in the midſt whereof they lay a piece of fleſh, and cover the Toil, ſo that nothing is ſeen but the fleſh, when the Wolf cometh and taketh hold of the fleſh, feeling it ſtick, pulling hard, he pulleth up the ring, which bringeth the whole Toil on his neck, and ſharp pins. This is the firſt manner that *Creſcentienſis* repeateth of taking VVolfs, and he ſaith there are other deviſes to enſnare their feet, which the Reader cannot underſtand, except he ſaw them with his eyes.

The *Italians* call the nets wherein VVolfs are taken, *Tagliola*, *Harpago*, *Lo Rampino*, and *Lycimo*, the *French*, *Hauſpied*; and *Blondus* affirmeth, that the ſhepheards of *Italy* make a certain gin with a net, wherein that part of the VVolf is taken which is firſt put into it. Now the manner of taking VVolfs in ditches and pits is divers, firſt of all they dig a deep ditch, ſo as the VVolf being taken, may not go out of it, upon this pit they lay a hurdle, and within upon the pillar they ſet a live Gooſe or Lamb, when the VVolf windeth his prey or booty, he cometh upon the trench, and ſeeing it at a little hole which is left open on purpoſe to caſt the VVolf into the deep ditch; and ſome uſe to lay upon it a weak hurdle, ſuch as will not bear up either a man or a beaſt, that ſo when the VVolf cometh upon it, it may break, and he fall down; but the beſt deviſe in my opinion that ever was invented in this kinde, is that the perch and hurdle may be ſo made, and the bait ſo ſet, that when one VVolf is fallen down it may riſe again of it owne accord, and ſtand as it did before to entrap another; and great care muſt be had, that theſe kinde of ditches may be made in ſolid and ſtrong earth, or if the place afford not that opportunity, then muſt the inſide be lined with boards, to the intent that the beaſt by ſcraping and digging with his feet make no evaſion.

The *Rhætians* uſe to raiſe up to a Tree a certain engine like a Mouſe-trap, but much greater, through which there is a cord where they hang a bait of fleſh or pullen, or ſome ſuch thing which the VVolf loveth; when he cometh unto it, he ſuddenly ſnatcheth at it, and ſo pulleth the trap upon his own pate. The *Teucrians*, *Myſians*, and *Thraſeans*, Inhabitants of *Aſia*, were wont to carry ſhort weapons to kill VVolfs, and they uſed alſo the ſtrongeſt Dogs, who by the incouragement of the Hunters would tear the VVolfs in pieces, for there is hardly any Dog ſo couragious, as to adventure upon a VVolf at ſingle hand.

The Dogs have therefore certain collers made unto them of leather ſtuft full of ſharp Iron nails, to the intent that their necks may be ſafe guarded from the VVolfs biting. Now *Blonus* ſaith, that all hunting of VVolfs with Dogs is in vain, except there be alſo ſet up certain great nets made of ſtrong cords, ſtretched out and ſtanding as ſtiffe as may be immoveably faſtned to the bodies of trees, or ſtrong pillars in the earth, and in divers places of theſe nets they muſt ſet boughs to cover them, to the end the VVolf deſcry them not; and at either end of the net muſt be made a little ſhed with boughs to cover a man, wherein the hunter muſt lodge with his Spear, ready to pierce through the VVolf when he perceiveth him in the net, for if the VVolf be not inſtantly wounded, he will deliver himſelf and eſcape, and then alſo he muſt be followed with the cry of Men and Dogs, that he may not return back again into his den, and the Hunters obſerve this order in hunting of a VVolf, and driving him to their nets.

VVhen they are far from their nets, they hunt them but gently, and let them go at leiſure, but when they are cloſer and nearer unto them, they follow them with all ſpeed and violence, for by that means many are intrapped and ſuddenly killed; and theſe are thoſe hunting obſervations which I finde to be recorded in Authors for the taking of VVolfs. And this is the nature of this beaſt, that he feareth no kinde of weapon except a ſtone, for if a ſtone be caſt at him, he preſently falleth down to avoid the ſtroke, for it is ſaid that in that place of his body where he is wounded by a ſtone, there are bred certain worms which do kill and deſtroy him; and therefore the *Egyptians* when they do decipher a man that feareth an eminent danger, they picture a VVolf and a ſtone; as *Orus* writeth.

VVolfs do likewiſe fear fire even as Lions do, and therefore they which travel in woods and ſecret places by night, wherein there is any ſuſpicion of meeting of VVolfs, they carry with them a couple of flints, wherewithal they ſtrike fire, in the approach of the ravening beaſt, which ſo dazleth his eyes, and danteth his courage, that he runneth away fearfully. It is ſaid that VVolfs are afraid of the noiſe of ſwords or iron ſtruck together, and it may well be, for there is a true ſtory of a man travelling near *Baſil*, with a bell in his hand, who when he ſaw that the throwing ſtones at the VVolf which followed him would nothing avail, and by chance fell down, in the mean time a bell which he carryed about him did give a ſound, at which ſound the VVolf being affrighted ran away, which when he perceived, he ſounded the bell aloud, and ſo drove away the wilde ravening beaſt. As the Lion is afraid of a white Cock and a Mouſe, ſo is the VVolf of a Sea-crab or ſhrimp. It is ſaid that the pipe of *Pithocaris* did repreſs the violence of VVolfs when they ſet upon him, for he ſounded the ſame unperfectly, and indiſtinctly, at the noiſe whereof the raging VVolf ran away; and it hath been believed, that the voyce of a ſinging man or woman worketh the ſame effect. *Horace* teſtifieth ſo much of himſelf, that by ſinging he drove away a VVolf, as in theſe verſes;

Namq; me ſylva Lupus in Sabina,
Dum meam canto Lalagen, & ultra
Terminum curis vagor expeditus,
Fugit inermem.

Quale portentum neq; militaris
Daunia in latis alit eſculetis,
Nec Jubæ tellus generat Leonum
Arida nutrix.

If at any time a VVolf follow a man afar off, as it were treacherouſly to ſet upon him ſuddenly and deſtroy him, let him but ſet up a ſtick or ſtaffe, or ſome ſuch other knowledgable mark, in the middle ſpace betwixt him and the VVolf, and it will ſcare him away; for the ſuſpicious beaſt feareth ſuch a man, and thinketh that he carryeth about him ſome engin or trap to take away his life: and therefore alſo it is ſaid, that if a traveller do draw after him a long rod or pole, or a bundle of ſticks and clouts, a VVolf will never ſet upon him, worthily miſtruſting ſome deſerved policy to overthrow and catch him. *Æſculapius* writeth, that if a man do anoint himſelf with the fat or ſewet taken out of the reins of a Lion, it will drive away from him all kinde of Wolfs. There be ſome that take VVolfs by poyſoning, for they poyſon certain pieces of meat, and caſt them abroad, whereof when the Wolfs do eat, they die immediately. There were certain Countrey men which brought the skins of Wolfs into the City of *Rome*, and carryed them up and down the ſtreets publiquely to be ſeen, affirming that they had killed thoſe Wolfs with the powder of a certain herb call'd *Cardus Varius*, and that therewithall alſo they would kill Rats and Mice. *Pauſanias* ſaith, that there was a Temple of *Apollo Lyceus*, at *Sicyon*, and that on a time the Inhabitants were ſo annoyed with Wolfs, that they could receive no commodity by their flocks, whereupon *Apollo* taking pity of them, told them that there was in their Temple a certain piece of dry wood, commanding them to pull off the rinde or bark of that wood, and beating it to powder, to mingle it with convenient meat for VVolfs, and ſo caſt it abroad in the fields.

The people did as they were commanded by the Oracle, and thereby deſtroyed all the VVolfs; but what kinde of wood this was, neither *Pauſanias* nor any of the Prieſts of *Sicyon* could declare. In one part of the world the Ewe-tree, and certain fragments of Juniper. The Spindle tree, and Rododaphne do yeeld poyſon unto VVolfs mixed in their drink, and beſides them we know no trees that are venemous, and yet plants innumerable, eſpecially VVolf-bane. And the occaſion why there are more poyſonful herbs then trees, is in the juyce or liquor whereby they are nouriſhed, for where the juyce is wholeſome and well tempered, there it increaſeth into a great tree, but where it is imperfect and venomous, there it never groweth tall, nor bringeth forth any great ſtock.

There are certain little Fiſhes called by the *Grecians*, *Lycoi*, and by the *Latiniſts*, *Blenni*, which we may Engliſh VVolf-fiſhes, and theſe the Hunters uſe to take Wolfs in this manner: when they have taken a great many of them alive, they put them into ſome tub or great mortar, and there kill them by bruiſing them to pieces, afterwards they make a fire of coals in the Mountains where the VVolfs haunt, putting into the ſame ſome of theſe fiſhes mixed with bloud and pieces of Mutton, and ſo leaving it, to have the ſavour thereof carryed every way with the winde, they go and hide themſelves: whileſt that in the mean time the VVolfs enraged with the ſavour of this fire, ſeek to and fro to finde it, becauſe of the ſmell, the fire before they come is quenched or goeth out naturally, and the VVolfs by the ſmoak thereof, eſpecially by taſting of the fleſh, bloud and fiſh which there they finde, do fall into a drowſie dead ſleep, which when the Hunters do perceive, they come upon them and cut their throats. The *Armenians* do poyſon them with black fiſhes, and ſome do take a cat, pulling off her skin, taking out the bowels, they put into her belly the powder of Frogs, this Cat is boyled a little upon coals, and by a man drawn up and down in the Mountains where VVolfs do haunt; now if the VVolfs do chance to meet with the train of this Cat, they inſtantly follow after him, inraged without all fear of man to attain it, therefore he which draweth the Cat, is accompanyed with another Hunter armed with a Gun, Piſtol, or Croſs-bow, that at the appearance of the VVolf, and before his approach to the train, he may deſtroy and kill him.

Poyſoning of Wolves.

I will not diſcourſe of VVolf-bane, commonly called *Aconitum* in *Latine*, wherewithall both men and beaſts are intoxicated, and eſpecially VVolfs, but referring the Reader to the long diſcourſe of *Conradus Geſner*, in his Hiſtory of the VVolf, I will only remember in this place an Epigram of *Auſonius* wherein he pleaſantly relateth a ſtory of an adulterated woman, deſiring to make away her jealous husband, and that with ſpeed and vehemency, gave him a drink of VVolf-bane and Quickſilver mingled together, either of both ſingle are poyſon, but compounded are a purgation, the Epigram is this that followeth:

Toxica zelotypo dedit uxor mœcha marito,
Nec ſatis ad mortem credidit eſſe datum,
Miſcuit argenti letalia pondera vivi,
Cogeret ut celerem vis geminata necem.
Dividat hac ſi quis, faciunt diſcreta venenum;
Antidotum ſumet, qui ſociata bibet.
Ergo inter ſeſe dum noxia pocula certant,
Ceſſit letalis noxa ſalutifera,
Protinus & vacuos alvi petiere receſſus,
Lubrica dejectis qua vita nota cibis.

The enemies of Wolves.

Concerning the enemies of Wolfs, there is no doubt, but that ſuch a ravening beaſt hath few friends, for except in the time of copulation wherein they mingle ſometime with Dogs, and ſometime with Leopards, and ſometime with other beaſts, all beaſts both great and ſmall do avoid their ſociety and fellowſhip, for it cannot be ſafe for ſtrangers to live with them in any league or amity, ſeeing in their extremity they devour one another: for this cauſe, in ſome of the inferiour beaſts their hatred laſteth after death, as many Authors have obſerved; for if a Sheep skin be hanged up with a Wolfs skin, the wool falleth off from it; and if an inſtrument be ſtringed with ſtrings made of both theſe beaſts, the one will give no ſound in the preſence of the other; but of this matter we have ſpoken in the ſtory of the ſheep, ſhewing the opinion of the beſt learned, concerning the truth hereof. The Ravens are in perpetual enmity with Wolfs, and the antipathy of their natures is ſo violent, that it is reported by *Philes* and *Ælianus*, that if a Raven eat of the carcaſe of a beaſt which the Wolf hath killed, or formerly taſted of, ſhe preſently dyeth.

There are certain wilde Onions called *Scillæ*, and ſome ſay the Sea-Onion, becauſe the root hath the ſimilitude of an Onion, of all other things this is hateful to a Wolf, and therefore the *Arabians* ſay, that by treading on it his leg falleth into a cramp, whereby his whole body many times endureth inſufferable torments, for the Cramp increaſeth into Convulſions; for which cauſe it is worthy to be obſerved how unſpeakable the Lord is in all his works, for whereas the VVolf is an enemy to the Fox and the Turtle, he hath given ſecret inſtinct and knowledge both to this Beaſt and Fowl, of the vertuous operation of this herb againſt the ravening VVolf; for in their abſence from their neſts, they leave this Onion in the mouth thereof, as a ſure gard to keep their young ones from the VVolf.

There are certain Eagles in *Tartaria* which are tamed, who do of their own accord being ſet on by men adventure upon VVolves, and ſo vex them with their talons, that a man with no labour or difficulty may kill the beaſt, and for this cauſe the VVolves greatly fear them and avoid them; and thereupon came the common proverb, *Lupus fugit aquilam*: And thus much ſhall ſuffice to have ſpoken in general concerning their taking.

Their copulation and procreation.

Now we will proceed to the other parts of their Hiſtory, and firſt of all of their carnal copulation. They engender in the ſame manner as Dogs and Sea-calves do, and therefore in the middle of their copulation they cleave together againſt their will. It is obſerved that they begin to engender immediately after *Chriſtmaſs*, and this rage of their luſt laſteth but twelve days, whereupon there was wont to go a fabulous tale or reaſon, that the cauſe why all of them conceived in the twelve days after *Chriſtmaſs* was, for that *Latona* ſo many days together wandered in the ſhape of a ſhe VVolf in the Mountains *Hyperborei*, for fear of *Juno*, in which likeneſs ſhe was brought to *Delus*; but this fable is confuted by *Plutarch*, rehearſing the words of *Antipater* in his Book of Beaſts, for he ſaith when the Oaks that bear Acorns do begin to caſt their flowers or bloſſomes, then the VVolves by eating thereof do open their wombs, for where there is no plenty of Acorns, there the young ones dye in the dams belly, and therefore ſuch Countries where there is no ſtore of Oaks, are freed from VVolves; and this he ſaith is the true cauſe why they conceive but once a year, and that only in the twelve days of *Chriſtmaſs*, for thoſe Oaks flower but once a year, namely, in the Spring time, at which ſeaſon the VVolves bring forth their young ones. For the time that they go with young, and the number of whelps, they agree with Dogs, that is, they bear their young nine weeks, and bring forth many blinde whelps at a time, according to the manner of thoſe that have many claws on their feet. Their legs are without Articles, and therefore they are not able to go at the time of their littering, and there is a vulgar opinion, that a ſhe VVolf doth never in all her life bring forth above nine at a time, whereof the laſt which ſhe bringeth forth in her old age is a Dog, through weakneſs and infirmity: but the *Rhætians* among whom VVolves do abound, do affirm conſtantly, that in the beginning of *May*, they bring their young out of their dens, and lead them to the water, ſometimes ſeven, and ſometimes nine, every year encreaſing their number; ſo that the firſt year ſhe littereth one whelp, the ſecond year two, the third year three, and ſo obſerveth the ſame proportion unto nine, after which time ſhe groweth barren and never beareth more: and it is ſaid when ſhe bringeth her young ones to the water, ſhe obſerveth their drinking very diligently, for if any of them lap water like a Dog, him ſhe rejecteth as unworthy of her parentage, but thoſe which ſuck their water like a Swine, or bite at it like a Bear, them ſhe taketh to her, and nouriſheth very carefully.

VVe have ſaid already that VVolves do engender not only among themſelves, but among other beaſts, and ſuch are to be underſtood of them which bear their young an equal proportion of time, as of Dogs and VVolves cometh the *Lupus Canarius*, or Panther, and the *Crocuta*. Of the Hyæna and the Wolf come the Thoes, of whom we ſhall ſpeak in their due place in the end of this ſtory, and the Hyæna it ſelf ſeemeth to be compounded of a Wolf and a Fox.

The Epithets and natural diſpoſition.

Concerning the natural diſpoſition of this Beaſt we have already ſpoken in part, and now we will adde that which doth remain; and firſt of all their Epithets which are attributed unto them among ſeveral Authors are moſt clear demonſtrations of their diſpoſition; as ſowre, wilde, *Apulian*, ſharp, fierce, bold, greedy, whoar, fleſh-eater, wary, ſwift, bloudy, bloud-lovers, degenerate, hard, glutton, hungry, Cattle-eater, famiſhing, furious, yellow, faſting, ungentle, unhoneſt, untameful, harmful, Cattle-hurter, teeth-gnaſher, inſatiable, treacherer, martial, ſorrowful, mountain, nightly, robber, ſtrate, ravener, mad, ſnatcher, cruel, pack-bearer, bloud-ſucker, foamer, proud, fearing, ſullen, terrible, vehement, howling, and ſuch other like belonging to the male Wolf. Now unto the female there are ſome peculiar ones alſo, as inhumane, ungentle, martial, obſcure, rank, ravener, ſanded, *Romulian*, greaſie, terrible, and *Volſcan*: and the ravening deſire of this Wolf doth not only appear in the Proverbs of holy Scripture already repated, as where Chriſt compareth the Hereticks to Wolves, but alſo from hand inſtruments and ſickneſſes, for a little hand-ſaw is called of the *Latines* and *Germans Lupus*, a Wolf; becauſe of the inequality of the teeth, wherewithal a man ſheareth aſunder violently any piece of wood, bones, or ſuch like thing.

There is a diſeaſe called a Wolf, becauſe it conſumeth and eateth up the fleſh in the body next the ſore, and muſt every day be fed with freſh meat, as Lambs, Pigeons, and ſuch other things wherein is bloud, or elſe it conſumeth all the fleſh of the body, leaving not ſo much as the ſkin to cover the bones. Alſo the galls on a mans ſeat which cometh by Horſe-riding, are by the Ancients called *Lupi*, and by *Martial*, *Ficus*, whereof he made this diſtichon;

Stragula ſuccincti venator ſume veredi,
Nam ſolet à nudo ſurgere ficus equo.

There be alſo inſtruments called *Lupi*, and *Harpages*, or *Harpagones*, wherewithall Ankers are looſed in the Sea, or any thing taken out of the deep. There is a certain territory in *Ireland*, (whereof Mr. *Camden* writeth) that the Inhabitants which live till they be paſt fifty year old, are fooliſhly reported to be turned into Wolves : the true cauſe whereof he conjectureth to be becauſe for the moſt part they are vexed with the diſeaſe called *Lycanthropia*, which is a kinde of melancholy cauſing the perſons ſo affected, about the moneth of *February* to forſake their own dwelling or houſes, and to run out into the Woods, or near the graves and ſepulchres of men, howling and barking like Dogs and Wolves. The true ſignes of this diſeaſe are thus deſcribed by *Marcellus* : thoſe ſaith he which are thus affected, have their faces pale, their eyes dry and hollow, looking drouſily, and cannot weep. Their tongue as if it were all ſcabd, being very rough, neither can they ſpit, and they are very thirſty, having many ulcers breaking out of their bodies, eſpecially on their legs; this diſeaſe ſome call *Lycaon*, and men oppreſſed therewith *Lycaones*, becauſe that there was one *Lycaon* as it is faigned by the Poets, who for his wickedneſs or ſacrificing of a childe, was by *Jupiter* turned into a Wolf, being utterly diſtracted of humane underſtanding, and that which Poets ſpeak of him, may very well agree with melancholy, for thus writeth *Ovid* :

Territus ipſe fugit, nactuſq; ſilentia ruris
Exululat, fruſtraq; loqui conatur.

And this is moſt ſtrange, that men thus diſeaſed ſhould deſire the graves of the dead. Like unto this is another diſeaſe, called by *Bellunenſis*, *Dæmonium Leoninum*, which is ſaith he, *Confuſio rationis cum factis malis, noxiis & iracundis ; à Leone dictum videtur malum, quod eo detenti alios homines ledant, & Leonum inſtar in eos ſaviant* ; that is, the Lion-devil diſeaſe is a confuſion of reaſon, joyned with wrathful, and impious facts ; and it ſeemeth to be named of Lions, becauſe that ſuch as are oppreſſed therewith, do rage againſt men, and wound them like Lions.

The apology of Wolves and Lambs.

There is a pretty Apology of a league that was made betwixt the Wolves and the Sheep, whereupon came the word *Lycophilios*, my Author rehearſeth it thus : *Lupis & agnis fœdus aliquando fuit, datis utrinq; obſidibus, Lupi ſuos catulos, oves Canum cohortem dedere. Quietis ovibus ac paſcentibus Lupuli matrum deſiderio ululatus edunt, tum Lupi irruentes fidem fœduſq; ſolutum clamitant, eaſq; Canum præſidio deſtitutas laniant*, that is to ſay, There was a peace made betwixt the Wolves and the Sheep, either ſide giving hoſtages to other, the Wolves gave their young whelps, and the Sheep gave the Shepheards Dogs to the VVolves. Now when the young VVolves were among the flock of Sheep, they howled for their dams, which when the old VVolves heard, they came ruſhing in upon the Sheep, crying out that they had broken the league, and therefore they deſtroyed the Sheep in the abſence of the Dogs that ſhould keep them : whereby is notably ſignified the ſimplicity of innocent men, and the impiety of the wicked, for whatſoever bonds of truce and peace are made with them, they ever reſpect their own advantage, taking any ſmall occaſion, like VVolves at the crying of their young ones, without all offence of the innocent and harmleſs, to break through the brazen walls of truce, peace, and amity, for the execution of their bloudy and ungodly mindes.

The particular diſpoſition of Wolves.

VVolves are truly ſaid to be fierce and treacherous, and not generous and bold, and noble like Lions. They eſpecially rage in the time of their hunger, and then they kill not ſo much as will ſuffice, but all the flock before them ; but being ſatisfied, as we have ſaid already, they ſeem rather Lambs then VVolves. The male is always as careful of the young ones as the female, for while ſhe ſuckleth her young ones, he bringeth meat unto her in the den, and when that they are greatly conſtrained both to fly away, they carry their young ones along with them. Great is their malice toward them that hurt them, as *Niphus* ſaith, he tryed one day when he was a hunting near *Rome*, for his Dog was fighting with a VVolf, and he comming in with the multitude of Hunters, alighted from his Horſe, and drew his ſword, and gave the VVolf a wound, the VVolf feeling the ſtroke of the ſword forſook the Dog and turned upon the man, making all force at him he could to bite him, but he profeſſed he eſcaped with ſingular danger, more by the help of his fellow hunters, then by his own valour ; wherefore he concludeth, that as VVolves are enemies to all, ſo they take ſpecial revenge of them that harm them, as we have ſaid before of Lions. Some ſay that when many of them have obtained a ſpoil, they do equally divide it among them all, I am ſure the like is reported betwixt the old Lion and the young, but whether it be true in VVolves I cannot tell, but rather think the contrary, becauſe they are inſatiable and never think they have enough. And *Albertus* ſaith, they do not communicate their prey like Lions, but when they have fed ſufficiently, they hide the reſidue in the ground till they hunger again.

VVhen they ſet upon horned beaſts, they invade them behinde, and on their backs ; when they ſet upon Sheep, they chooſe a dark cloudy day or time, that ſo they may eſcape more freely ; and to the intent that their treadings ſhould not be heard, they lick the bottom or ſoles of their feet, for by that means they make no noiſe among the dry leaves ; and if going along they chance to break a ſtick, and ſo againſt their minde make a noiſe, then preſently they bite their foot, as if it were guilty of that offence : For the moſt part they ſet upon ſuch Cattle as have no Keepers, and raven in ſecret. If they come unto a flock of Sheep where there are Dogs, they firſt of all conſider whether they be able to make their party good, for if they ſee they cannot match the Dogs, they depart away although they have begun the ſpoil, but if they perceive their forces to be equal or ſuperior, then they divide themſelves into three ranks, one company of them killeth Sheep, a ſecond company fighteth with the Dogs, and the third ſetteth upon the men. When they are in danger to be taken by the hunters, they bite off the tip of their tails, and therefore the *Egyptians*, when they would deſcribe a man delivered out of extremity and danger, do picture a Wolf lacking that part of his tail. To conclude, when they are in peril they are extreamly fearful, aſtoniſhed, and afraid, eſpecially when they are unavoidably included they ſeem harmleſs, and this argueth the baſeneſs of their minde which is ſubtil, cowardly, and treacherous, daring do nothing but for the belly, and not then neither, but upon a ſingular advantage, and for the manifeſting hereof, I will expreſs theſe two ſtories following, as they were related to *Geſner* by *Michael Herus*, and *Iuſtinus Goblerus*. It happened (ſaith the firſt), that a certain Wolf conſtrained by famine, came unto a village near *Millan* in *Italy*, and there entred into a certain houſe, wherein ſat the good wife and her children, the poor woman being terrified herewith, and not knowing what ſhe did, ran out of the houſe, pulling the dore to after her, and ſo ſhutting the Wolf in among her children, at laſt her husband returned home, unto whom ſhe related the accident, and how ſhe had ſhut up the Wolf; the man being more afraid then was cauſe, leſt the Wolf had devoured ſome of his children, entered haſtily in a dores, longing to ſave and deliver his poor Infants, whom the fearful mother had left with the Wolf, when he came in he found all well, for the Wolf was in worſe caſe, aſtoniſhed, amazed, daunted, and ſtanding like a ſtock without ſenſe, not able to run away, but as it were offering himſelf to be deſtroyed: And this is the firſt hiſtory.

The ſecond is like unto this, but more admirable, for the great Uncle of *Goblerus*, being marvelouſly addicted to the hunting of wilde beaſts, had in his land divers ditches and trenches caſt up with other pits and caves wrought very artificially for the ſafe keeping of ſuch beaſts as ſhould fall into them. Now it hapned that upon one Sabbath day at night there fell into one of thoſe pits three creatures of divers diſpoſition, and adverſe inclination, none of them being able to get out thereof: the firſt was a neighbors wife of his a poor woman, which going to the field to gather Beets and Rapes for her meat the day following, it fortuned that ſhe fell down by a miſchance into the ſaid pit, wherein ſhe was fain to lodge all night (you muſt think with great anguiſh, ſorrow, and *perillous* danger to her ſelf) beſide that which her husband and family conceived at home, but ſhe had not tarryed long in the ſaid pit ere a Fox was likewiſe taken and fell down upon her, now began her grief to be encreaſed, fearing leſt the wilde beſt ſhould bite and wound her, having no means to eſcape from him, nor no man to help and reſcue her, although ſhe cryed as loud as ever ſhe could; wherewithal being wearyed, neceſſity made her to be patient, being a little comforted to ſee the Fox as much afraid of her, as ſhe was of him, and yet ſhe thought the night full long, wiſhing for the break of the day, when men ſtir abroad to their labours, hoping that ſome or other would hear her moan, and deliver her from the ſociety of ſuch a Chamber-fellow: while thus ſhe thought, ſtriving betwixt hope, fear, and grief, lo what befel her more wofully then before, for ſuddenly a Wolf was taken and fell down upon her, then ſhe loſt her hope, and in lamentable manner thinking of husband and children, how little they conceived of her extremity, reſolved to forſake the world, and commended her ſoul to God, making no other reckoning but that her diſtreſſed lean limbs ſhould now be a ſupper and breakfaſt to the Wolf, wiſhing that ſhe might but ſee her husband, and kiſs her children before ſhe loſt her life by that ſavage execution; but all her wiſhes could not prevail, nor clear her heart from fear and expectation of an unavoidable death: while thus ſhe muſed, ſhe ſaw the Wolf lie down, ſhe ſitting in the one corner, and the Fox reſting in another, and the Wolf appaled as much as either of both, ſo the woman had no harm but an ill nights lodging, with the fear whereof ſhe was almoſt out of her wits. Early in the morning came his great Uncle the Hunter to look upon his trenches and pits what was taken, and coming unto that pit, he found a treble prey; a Woman, a Wolf, and a Fox; whereat he was greatly amazed, and ſtepped a little backward, at the firſt ſight the woman ſeeing him cryed out, calling him by his name, and praying his aid: he knowing her by her voyce, preſently leaped down into the pit, (for he was a valiant man) and with his weapon firſt ſlew the Wolf, and then the Fox, and ſo delivered the woman from the fear of them, yet there was forced to leave her till he went and fetched a ladder, for ſhe was not able to come forth as he was; then having brought the ladder, he went down again into the pit, and brought her forth upon his ſhoulders, in that manner delivering her ſafe to her husband and family. Now theſe two ſtories do plainly ſet forth, that a Wolf dareth do nothing when he is in fear himſelf.

Of tamed Wolves.

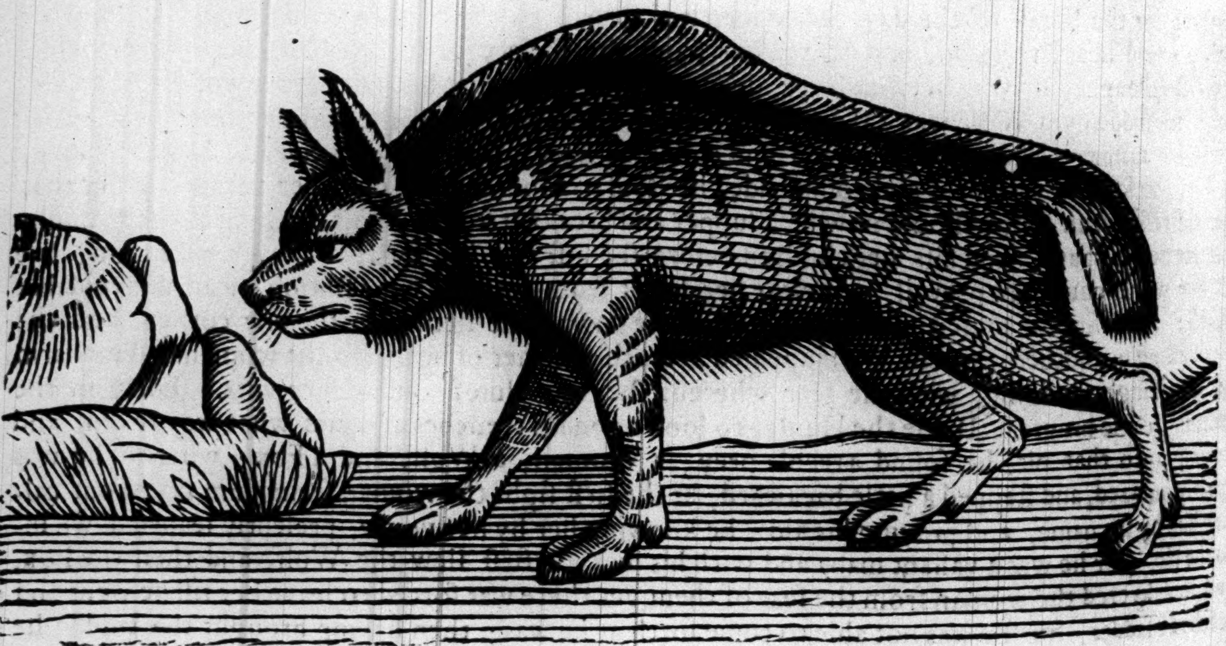
It hath been a queſtion whether Wolves can be tamed or no, ſome ſay that they are always wilde and can never be tamed. *Albertus* writeth, that being taken whelps, they are tamed and will play like Dogs, yet he ſaith, they never forget their hatred againſt the Hunter and the deſire of Lambs or other beaſts which are devoured by Wolves, whenſoever he goeth abroad. And *Stumpſius* writeth, that even when they are tamed, they are angry with their Maſters that look upon them while they eat their meat.

Strabo writeth a fable of two Woods among the ancient *Veneti*, one of them dedicated to *Juno*, and the other to *Diana*, and he would make the world believe, that therein the Wolves lived peaceably and gently with the Harts, and did come to the hands of men like familiar and tame Dogs, ſuffering themſelves to be ſtroked with their hands. *Ælianus* and *Stephanus* do ſay, that near the plain of *Meotis*, there are Wolves which live like tame Dogs with men, being continually converſant among the Fiſhermen, and theſe VVolves do part ſtakes and divide their prey with the inhabitants dwelling upon the Sea-ſhores, and there is ſuch a mutuall charity and commons obſerved betwixt them and the men, for ſometimes the Wolves take fiſhes when the men take none, and then they part with the Wolf, ſometimes the men take fiſhes when the Wolves have none; and thus they live together in quiet manner like confederates, each one relieving and helping other; but if the men at any time break with the Wolves, and do not give them a ſhare, they recompenſe their ingratitude and falſhood with tearing in pieces their nets: which thing if it be true, is a ſingular example of that rare concord and agreement which was primitively ordained by God to be betwixt man and beaſt: Some ſay, theſe kinde of Wolves be Otters, but I rather beleeve that they be Sea-wolves, of whom we ſhall talk preſently.

There be many magicall inventions about the parts of Wolves, namely, their heads, teeth, ears, tails, and privy parts, which I will not ſtand to recite in this place, becauſe I cannot tell what benefit ſhall come to the knowledge of them by the *Engliſh* Reader. Wolves are ſubject to the ſame diſeaſes that Dogs are, eſpecially the ſwellings of the throat, madneſſe, and the gout: when they are ſick, they eat of an herb which makes them caſt, ſome ſay, it is ground Ivy, ſome ſay it is graſſe, and ſome otherwiſe, of this they eat when they have a pain in their bellies, and not otherwiſe. *Albertus.* The reaſon why Dogs and Wolves are more ſubject to madneſſe then any other beaſt, is becauſe their bodies are cholerick, and their brains increaſe and decreaſe with the Moon. If a man be bitten by a mad Wolf, he is to be cured by the ſame medicines that are applyed to the bitings of a mad Dog. They live very long, even untill they loſe their teeth, therefore in their old age oppreſſed with famin they flie unto Cities and houſes to ſeek meat. They have no friends but the Parrots. A Wolf was once the part of the Arms of *Rome*; and the Judgement-ſeat at *Athens* had in it the Picture of a Wolf. There were ancient Coins of money ſtamped with the image of a Wolf, both among the *Grecians* and among the *Romans*, which were therefore deviſed, becauſe *Romulus* and *Remus* were ſaid to be nurſed by a Wolf: with the ſkins of Wolves after they were dreſſed by Curriers, we do read that there were garments made, wherewithall great Princes and Noble men were cloathed, the bare being inward next to their bodies, and the rough being outward, theſe were uſed in journeys and huntings, and they were the proper garment of the guards of Tyrants. And this ſhall ſuffice of the vulgar Wolf.

The Wolf hath no friend but the Parrot.

Of the *SEA-WOLF*.



ALthough nothing hath hitherto been brought to light concerning the Sea-wolf of the ancient writers, that I know, yet his form is notable to be obſerved; and you may chuſe whether you will call him a Thief or a Sea-monſter, much differing from the Wolf-fiſh, as that he ſeemeth to challenge a particular deſcription or treatiſe. It is alſo a Four-footed beaſt that liveth both on ſea and land, ſatisfying his hunger on the moſt part upon fiſhes: It hath been ſeen upon the *Britain* Ocean ſhoar, and it doth reſemble the Wolf that liveth on the land, that it is not undeſervedly called among the common people a Wolf.

It doth live alſo a long time being tamed, it hath a dangerous head, and very many hairs growing on both ſides of his eyes to ſhadow them, his noſtrils and teeth are like unto a Dogs, and ſtrong hairs growing about his mouth: alſo ſmall briſtles growing upright upon his back: and *B. Uonius.* adorned and marked on every ſide with black diſtinct ſpots, a long tail, thick and hairy, all the other parts being like to a Wolves, as you may eaſily ſee by this expreſſed Picture: and unto this belongeth the ſtory of the Wolves laſt before expreſſed, which live upon fiſhes, and divide them familiarly with men.

Of

Of the *THOES.*

THere are two kinds of Thoes, as there are of Panthers, differing only in magnitude or greatneſs. But the leſſer Thoes is like unto the leſſer Panther, a Lycopanther, and the *Lupus canarius* engendered betwixt a VVolf and a Dog, are all one four-footed beaſt. The Thoes alſo are a kinde of VVolf. *And. Bellu.* And again there is a kinde of VVolf which *Ariſtotle* doth call *Chabez*, but *Avicen* doth write, that it ought to be called *Beruet*, in the *Perſian* tongue. And again in another place, where he doth write, that the Lion and the Thoes are utter enemies, and *Albertus* doth tranſlate it, that a VVolf doth fight with the four-footed beaſt *Toboz*, which is a corrupted word, *Toboz* for *Thoes*, as *Cabez* for *Thoboz*, and this ſome men think to be the Lynx. Thoes is called in *Hebrew*, *Tabas*; *Alſhali* is a four-footed beaſt like to a Wolf. *Adeditach* is alſo a kinde of Wolf, but I do not know whether theſe names belong only to the Thoes, or to any other kinde of Wolf. *Solinus* doth call *Thoas Æthiopian* Wolves, and a little before he ſaid that *Lycaon* was an *Æthiopian* Wolf, mained on the neck, and ſo divers coloured that a man would think there were no colors wanting in them.

The people of *Scythia* likewiſe ſay, that the Buff doth change his colors, neither is there any other beaſt covered with hair, except the *Lycaon* among the *Indians*, (as *Pliny* alſo writeth) and beſides this there is no mention made of the *Lycaon* among all the ancient writers. *Lycaons* are called Dogs, in the ſtory of the diverſities of Dogs. The leſſer kinde of Thoes are the beſt, for ſome make two kinde of Thoes, and ſome three, and theſe like birds, and other four-footed beaſts, change their color, both in Winter and Summer, ſo that ſometime they appear bare, and again at other times rough all over, that is bare in the Summer, and rough in the Winter, but it doth plainly ſeem that there is no more kinde of Thoes but one, which the things that come after doth prove and make manifeſt. *Nearchus* ſaith, that thoſe Tigers are not true Tigers, which are commonly called Tigers, but changeable Thoes (as if that every Thoes were not changeable) and greater then the other Thoes.

They have no reaſon which take the *Lupus cervarius* for a Thoes, which we have already ſhewed to *Arrian.* be a Lynx; for the *Rhætians* which ſpeak *Italian*, & the *Savoyans* do to this day call him *Cervario*, and for the *Armenian* Wolf the *Cicatus*, and the *Lupus Canarius* we have already ſhewed, that it is a Panther, and therefore it is needleſs to ſtand any longer upon thoſe names in this place. We will therefore take it for confeſſed, that the Thoes is a beaſt engendered betwixt a Wolf and a Fox, whereof ſome are greater and ſome are ſmaller, and theſe are found about the Mountain *Pangeus*, *Cittus*, *Olympus*, *Myſius*, *Pindus*, and *Niſa*, beyond *Syria*, reſembling for the moſt part a Hyæna, having a longer body, and a ſtraighter tail then a Wolf, and although it be not ſo high of ſtature, yet it is as nimble and as ſtrong as is the Wolf, and it ſeemeth that the very name Thoes is taken from the celerity and ſwiftneſs in running and leaping, for it getteth his living by the quickneſs of his feet. In the outward face it much reſembleth a Wolf his Father, but in ſpots and length of his body it reſembleth a Panther his Mother; they couple in generation like Dogs, bringing forth two or four at a time, like Wolves, which are blinde, and their feet cloven into many toes.

They are enemies to Lions, and therefore they do not live in the ſame place where Lions are, not only becauſe they live upon the ſame victuals and food, but alſo becauſe they are a more pitiful creature then they, eſpecially to man, for if they ſee the face of a man at any time, they run unto him and do him all ſuch reverence as their brutiſh nature can demonſtrate.

And further *Philes* and *Selius* write, that if they ſee a man oppreſſed by any other beaſt, they run and fight for him, although it be with the Lion, not ſparing to offer their own lives, and to ſpend their deareſt bloud in the defence of him, who by ſecret inſtinct of nature they underſtand to be ordained of God, the King and chiefeſt of all worldly creatures: therefore *Gratius* called this kinde, *ſemiferam, Thoem de ſanguine prolem*, and of their taming and fighting with Lions, he ſpeaketh:

————————Thoes commiſſos Leones
Et ſubiere aſtu, & parvis domuere lacertis.

They live for the moſt part upon Harts, whom they take in the ſwiftneſs of their courſe, theſe they bite and ſuck their bloud, then ſuffering them to run away to ſome Mountains, thither they follow them and take them the ſecond time, not deſtroying them all at once, but by diſtance of time, whereby the Harts bloud groweth ſweeter unto them, and they have the better appetite thereunto to deſtroy them. The Lycopanthers, and alſo the beaſt Pathyon, whereof *Albertus* ſpeaketh, I do take to be two ſeveral diſtinct beaſts from the Thoes, although the quantity and ſtature agree, and I ſee no cauſe if there be any ſuch beaſt in the world, but that we may truly ſay they are a leſſer kinde of Panthers: And this ſhall ſuffice to have ſaid of theſe beaſts, which are deemed to be of the kinde of Wolves, wherein we have endevored to ſay ſo much of the general and ſpecial as we could collect out of any good Authors; and thus we will ſhut up the ſtory of the Wolf with a ſhort remembrance of his medicinal vertues.

The Medicines of a Wolf.

A Wolf being ſodden alive until the bones do only remain, is very much commended for the pains of the Gout, or a live Wolf ſteeped in Oyl and covered with Wax, is alſo good for the ſame diſeaſe.

The skin of a Wolf being taſted of thoſe which are bit of a mad or ravenous Dog, doth preſerve them from the fear or hazard of falling into water. The skin of a Wolf is very profitable for thoſe which are troubled with the winde colick, if it be bound faſt about the belly: and alſo if the perſon ſo affected doth ſit upon the ſaid skin, it will much avail him. If any labouring or travelling man doth wear the skin of a Wolf about his feet, his ſhooes ſhall never pain or trouble him. The skin of a Wolf being new plucked off from him, and eſpecially when it hath the natural heat in it, and rowled about the member where the cramp is, is very effectual againſt it.

The bloud of a Wolf being mixed with Oyl, is very profitable againſt the deafneſs of the ears. The dung and bloud of a Wolf is much commended, for thoſe that are troubled with the Colick and Stone.

The bloud of a Buck, Fox, or Wolf being warm, and ſo taken in drink, is of much force againſt the diſeaſe of the ſtone. He which doth eat the skin of a Wolf well tempered and ſodden, will keep him from all evill dreams, and cauſe him to take his reſt quietly. The fleſh of a Wolf being ſodden, and taken in meat, doth help thoſe that are Lunatick. The fleſh of a Wolf being eaten is good for procreation of children. You may read more things in the chapter going before, concerning remedies of the fleſh of a Wolf taken in meat. The fat of a Wolf is no leſs efficable, then the fleſh.

Pliny.
Sextus.

The fat of a Wolf doth very much profit, being anointed upon thoſe whoſe joynts are broken. Some of the later writers were wont to mingle the fat of the Wolf, with other Ointments for the diſeaſe of the Gout. Some alſo do mingle it with other Ointments, for the Palſie. It doth ſoften alſo the Uvula, being anointed thereon. The ſame alſo being rubbed upon the eyes, is very profitable for the bleardneſs or bloud-ſhot of the eyes. The head alſo of a Wolf is very good for thoſe that are weak to ſleep upon, being laid under their pillow. The head of a Wolf being burned into aſhes, is a ſpecial remedy for the looſneſs of teeth. The right eye of a Wolf being ſalted, and bound to the body, doth drive away all Agues and Feavers. The eye of a Wolf being rubbed upon the eye, doth diminiſh all diſeaſes that riſe in the ſight of the eye, and it doth alſo take away all marks or prints being made with hot Irons. The right eye of a Wolf alſo is profitable for thoſe that are troubled with ſtitches on the right ſide of the belly; and the left eye of a Wolf for pains on the left ſide. The right eye of a Wolf is very good againſt the bitings of Dogs. Alſo the eye of a Wolf is much commended for thoſe that are Lunatick by the bitings of Dogs.

Blondus.

The teeth of a Wolf being rubbed upon the gums of young Infants, doth open them, whereby the teeth may the eaſier come forth. Again, the gums of children are looſened with the tooth of a Dog, being gently rubbed thereon, but they are ſooner brought forth with the teeth of a Wolf. Some men do commend the tongue of a Wolf to be eaten of thoſe that are troubled with the Falling-ſickneſs. The artery which ſpringeth in the throat of a Wolf being taken in drink, is a moſt certain cure againſt the Squinſie. The throat of a Wolf taken in drink, is very much commended for thoſe that are troubled with the Falling-ſickneſs. The lungs or lights of a Wolf being ſodden and dryed, and mingled with Pepper, and ſo taken in milk is very profitable for thoſe that are puffed up or ſwoln in the belly.

The heart of a Wolf being burned and beaten to powder, and ſo taken in drink, doth help thoſe that are ſick of the Falling-ſickneſs. Take one ounce of the gum of an Oak, and half an ounce of the gum of a Pear-tree, and two drams of the powder made of the top of a Hart-horn, and one dram of the heart of a Wolf, all which being mingled together, and made into medicine, is always uſed for the cure of all ulcers: but it will be more effectual if thou doſt add thereto the hinder-part of the skull of a man beaten to powder. The Liver of a Wolf is of no leſs vertue then the Lungs or Lights, which I have manifeſted in the medicines of the Fox. The Liver of a Wolf helpeth or profiteth thoſe that are ſick of the Falling-ſickneſs. The Liver of a Wolf being waſhed in the beſt white wine, and ſo taken, is very good for thoſe diſeaſes that ariſe in the Liver. The Liver of a Wolf mixed in the medicine made of Liver-wort, is very much commended for the diſeaſes in the Liver. *Galen* alſo doth ſay, that he hath holpen thoſe which have been diſeaſed in the Liver, only uſing the medicine made of Liverwort, and he ſaith, if he did apply any other medicine thereto, it did little or nothing at all profit him.

The Liver of a Wolf is very profitable for thoſe that are troubled with the ſcurfe in the mouth. The Liver or laps of a Wolf is much uſed for thoſe that are troubled with diſeaſes in the Liver; but you muſt dry it and afterwards beat it to powder, and ſo give the party ſo affected one dram of it in ſweet wine. The Liver laps of a Wolf ſaith *Marcellus*, being dryed and beaten to powder, and a little part of it mingled in like portions with the powder made of Fenegreek, of Lupines, Wormwood, and of the herb called *Herba Mariæ*, and ſo mingled that it may be about the quantity of a cup full, and ſo given him that day which he is not troubled with the Feaver, but if he ſhall be troubled with it, let him take it in water for the ſpace of three days, and after he hath drunk it, let him lie for the ſpace of half an hour with his arms ſpread abroad: and afterwards let him walk very often, but eat very ſeldom, and let him be ſure he keep himſelf for the ſpace of thoſe three days well ordered, and from drinking any cold drink, or eating any ſalt or ſweet thing, and within a little ſpace after he ſhall be freed from that diſeaſe. The Liver laps of a VVolf being wrapped in bay-leaves, and ſo ſet to dry at the Sun or at the fire, and being dryed, beat it to powder in a Mortar, firſt taking away the leaves very warily, which being powdered, you muſt keep it in a clean veſſel, and when you give it him to drink, you muſt adde thereto two leaves of Spoonwort, with ten grains of Pepper beaten very ſmall, and as much clarified Honey as is needful, and alſo made hot with a hot burning Iron, and mingled very diligently in a Mortar, which being ſo warmed, you muſt give him to drink ſitting right up in his bed, that after he hath taken the potion, he may lye down on his right ſide for the ſpace of an hour, drawing his knees together, and after that he hath done ſo, let him walk up and down for the ſpace of an hour, and this will likewiſe cure him of the ſame diſeaſe.

Avicen.

Avicen doth ſet down a medicine concerning the cure of the hardneſs of the Liver, which is, Take Opium, Henbane, Oyl made of Beavers ſtones, Myrrhe, Saffron, Spicknard, Agrimony, the Liver of a Wolf, and the right horn of a Goat burned, of each equal parts, and make thereof a medicine. The Liver of a Wolf being made in the form of a dry Electuary and given as a Lozeng, doth alſo very much profit againſt the diſeaſes of the Liver.

Dioſcorides.

Gugir a Philoſopher doth affirm, that the Liver of al living beaſts doth very much profit againſt all pains of the Liver. The Liver of a Wolf being throughly dryed and drunk in ſweet Wine, doth mitigate all griefs or pains of the Liver. The Liver of the ſame beaſt to the quantity of a penny, taken in a pinte of ſweet Wine, is very medicinable for the curing of all pains in the Liver whatſoever. The Liver of a Wolf being taken in hot wine, doth perfectly cure the cough. If an intolerable cough doth vex any man, let him take of the Liver of a Wolf, either dryed or burnt, as much as he ſhall think convenient, and therewith let him mingle wine, honey, and warm water, and afterward drink the ſame faſting every day, to the quantity of four ſpoonfuls, and he ſhall in ſhort ſpace be cured of the ſame.

Galen.
Pliny.

The laps or fillets of a Wolves Liver, being applyed unto the ſide, doth perfectly heal any ſtitch or pricking ach therein. The Liver of a Wolf being taken in ſweet wine, doth heal thoſe which are troubled with a Tiſick. The Liver of a Wolf being firſt boyled in water, afterwards dryed, beaten and mingled with ſome certain potion, doth inſtantly heal the grief and inflamation of the ſtomach. The powder of a Wolves Liver mingled with white wine, and drunk in the morning for ſome certain days together, doth cure the Dropſie. The Liver of a Wolf taken either in meat or drink, doth aſſwage the pains of the ſecret parts. Two ſpoonfuls of the powder of a Wolves Liver being given in drink, doth cure all pains or ſores of the mouth. The gall of a Wolf being bound unto the navel of any man, doth looſen the belly.

The gall of a Wolf taken in wine, doth heal all pains in the fundament. The entrails of a Wolf being waſhed in the beſt white wine, blown upon, dryed in an Oven, pounded into duſt, afterwards rowled *in* Wormwood, is a good and effectual remedy againſt the Colick and Stone. If ſome part of the yard of a Wolf being baked in an oven, be eaten by any, either man or woman, it inſtantly ſtirreth them up to luſt. Concerning the genital of a Wolf I have ſpoken before in the medicines of the Fox: but antiquity, as *Pliny* ſaith, doth teach that the genital of beaſts which are bony, as Wolves, Foxes, Ferrets, and Weaſels, are brought to an eſpecial remedy for many diſeaſes. If any man take the right ſtone of a Wolf, being bloudy, ſteep it in Oyl, and give it unto any woman to apply it unto their ſecret parts, being wrapped in wooll it inſtantly cauſeth her to forſake all carnal copulation, yea although ſhe be a common ſtrumpet. The ſame being taken in ſome certain perfume, doth help thoſe which are troubled with the foul evil.

Sylvius.
Albertus.
Raſis.
Marcellus.

The eyes being anointed with the excrements of a VVolf, are inſtantly freed from all covers or ſpreading skin therein. The powder of the ſame VVolf being mingled with the ſweeteſt Hony as can poſſible be had, and in like manner rubbed or ſpread upon the eyes, doth expel all dazeling from them. The fime of a VVolf long rubbed, until it be very light, being mingled with Honey, by the unction thereof, cauſeth the filth or ſcurfe growing about the eyes to avoid away, and reſtoreth them to an exceeding clearneſs. The powder of a VVolves head being rubbed upon the teeth, doth make faſt and confirm the looſeneſs thereof, & it is moſt certain that in the excrements of the ſame beaſts, there are certain bones found, which being bound unto the teeth, have the ſame force and efficacy.

Galen.

The dung of a VVolf or Dog being beaten into ſmall powder, mingled with Honey and anointed upon the throat, doth cure the Quinſie or Squinanſie, as alſo all other ſores in the throat whatſoever. The fime of a VVolf being given to thoſe which are troubled with the Colick to drink, doth eaſily cure them, but this dung is more effectual if it have never touched ground, which is very hard to come by, but it is found by this means. The nature of the VVolf both in making his water, as alſo in voiding his excrements is like unto a Dogs, for while he voideth his water he holdeth up his hinder-leg, and voideth his excrements in ſome high or ſteepy place far from the earth, by which means it falleth down upon buſhes, thorns, fruits, elder-trees, or ſome other herbs growing in thoſe places, by which means it is found never touching the earth. There is furthermore found in the fime of VVolves certain bones of beaſts which they have devoured, which for as much as they could not be grinded or chawed, ſo alſo can they not be concocted, which being beaten and bruiſed ſmall, are by ſome commended to be excellent given in drink for the eaſe of the Colick, but if the grieved party ſhall be ſome fine or delicate perſon which cannot endure ſo groſs a medicine, then mingle it with Salt, Pepper, or ſome ſuch like thing, but it is moſt often given in ſweet wine, ſo there be but a ſmall quantity thereof drunk at one time.

But this dung which the *Græcians* call *Lagonas*, and is to be applyed to the groin of the diſeaſed perſon, ought to be hanged in a band made of wooll, but not of any wooll: But it would be more effectual if it were made of the wooll of that Sheep which was ſlain by a VVolf. But if the ſame cannot be got, then is it fit that there be two bands, one which may be bound about the groin, and another which may be bound upon the dung to keep it from falling.

There are alſo ſome which caſt a ſmall quantity of the ſame dung to the bigneſs of a Bean in a little pot, faſtening the ſame to any one which is troubled with the ſaid diſeaſe, and it healeth them (which in a manner ſeemeth incredible) in very ſhort time. The dung of a Wolf boyled in ſmall white wine, and afterwards taken in drink, is very profitable for thoſe which are troubled with the colick: and it is alſo reported that if the ſame dung be covered with the skin of the ſame beaſt, and hung upon the thigh of any one which hath the colick being bound with a thread made of the wooll of a Sheep ſlain by a Wolf, it will inſtantly cure the ſaid diſeaſe.

The fime of a Wolf, ſo that it be not found upon the earth, but upon ſome trees, Brambles, or Bulruſhes, being kept, and when there ſhall be need bound unto the arm of him that ſhall be troubled with the Colick, or to his neck being included in a bone, or in Copper, and hung with the thread wherewith ſilk-women weave, doth wonderfully and moſt ſpeedily cure him, ſo there be great care had, that in the mean time there be a little of the ſame dung given to the grieved party to drink, not knowing what it is. The dung of a Wolf being taken, and the bones therein beaten into powder, mingle therewith cold water, giving it to any one to drink which is troubled with the Stone, and it will inſtantly cure him.

The dung of a Wolf beaten into the ſmalleſt powder then ſtrained and given unto any in his fit which is troubled therewith to the quantity of half a ſpoonfull in hot water, is a very effectuall and approved cure for the Stone. The bones which are found in Wolves, being bound unto the arm of any one which is troubled with the Colick, having never touched the ground, do with great ſpeed and celerity cure him. The paſtern bone of a Hare found in the dung of a Wolf, being bound unto any part of the body of him which is troubled with the colick, doth very effectually cure him. The dung of a Wolf with the hairs of a white Aſſe, taken by any woman in a certain perfume, maketh her apt for conception.

The teeth of a Wolf are unequall, wherefore their bitings are very dangerous. A ravening Wolf by his biting bringeth the ſame danger, as a ravenous Dog, they alſo are cured by the ſame medicins, as we have declared at large in the ſtory of the Dog. The wounds which come by the teeth or nails of a Wolf are very dangerous, for the filth which pierceth through all clouts or ſpunges which are laid upon them: But they are cured by no other means then the bitings of Dogs: *Ariſtotle* writeth theſe things concerning the biting of a Lion, and not of a Wolf.

Johannes Vitus the *Hungarian* declared that there were certain men in *Hungary* bitten by a mad Wolf, and that they were as it ſeemed preſently cured: But before forty dayes expired they all died by a moſt bitter or painfull diſeaſe, ſmall pieces of fleſh encreaſing through their urine in the form of Dogs, with an exceeding pain or torment. It is alſo reported of a certain Countreyman, who when he had ſtriken a Wolf with his Club, and the Wolf had ſo torn his face with his nails, that he pulled off the skin, he was in ſhort time healed that there appeared no ſign of any harm, but in ſhort time after he began to be ſick, and to howl like unto a Dog, and ſo periſhed; by which it was conjectured that that Wolf was mad. An Oxe being bitten by a mad Wolf or Dog is cured by Garlick, being beaten and rubbed upon the wound: the Wolf himſelf is alſo healed of any wound by old ſalt fleſh applyed unto the ſame. Two drams of Gentian being drunk in wine, is an excellent cure for the bites of a mad Dog and ravening Wolves, as alſo of all beaſts tearing with their teeth or nails. The bites of Wolves being marked in the bodies of any Cattell, are burned or ſeared with a hot Iron, leſt that the biting be aſſuredly hurtfull, may draw unto it ſelf corruption. And thus much ſhall ſuffice concerning the medicines of the Wolf.

Avicenna.

Of the *ZEBEL*, commonly called a *SABEL*.

AMong all the kindes of Weaſels, Squirrels, Wood-mice, wilde Mice, or other little beaſts of the world, there is none comparable to this *Zebel*, commonly called in *Latine Zebellus*, and *Zobela*, from whence the *Germans* call it *Zobel*, the *Illyrians* and *Polonians*, *Sobol* and *Soboll*, the *Italians*, *Seſi*, and *Sablines*: The skins hereof are called *Zebelline*, and *Zobelline*, and ſometimes *Zibelline*. It is bred in *Muſcovia*, and the Northern parts of the World, among the *Lapones*, but no where more plentifull then in *Tartaria*, *Scythia*, and *Sarmatia*, and it is therefore called by ſome *Mus Scythicus*, the *Scythian* Mouſe. The *French* men becauſe of the ſimilitude it hath with a Martin, do call it by a compounded name, *Marteis Soublineis*. It liveth for the moſt part in the Woods, being leſſer then a Martin every way, and hath alſo ſhorter legs: They run up and down upon trees like Squirrels, eaſily faſtning their clawes in the boughes; when they leap, their tail ſerveth them inſtead of a croſs Beam to direct them. They bite moſt irefully, for their teeth are as ſharp as Razors, and there is no beaſt in the World of their quantity ſo angry and terrible as they: their fleſh is unprofitable and good for nothing. The only price and eſtimation of this beaſt is for the skin, which farre excelleth all the skins of the World, either Ermins, Martins, or Foines, differing herein from the Martins, becauſe their hair is thinner, and if you ſtroke them from the head to the tail, or on the contrary from the tail to the head, they do lie every way ſmooth, whereas the Martins do only fall ſmooth from the head to the tail.

Theſe are more ſubject to Worms then other skins, except they be continually worn, or laid up with bunches of Wormwood; but above all other things the laying of them open one day together in the Sun or air, doth him more harm then a whole years wearing, for the beaſt it ſelf liveth evermore in ſhadowy places, forbearing the ſun except ſhe be hunted, and catcheth ſmall birds in ſecret. In the furtheſt part of *Lituania* they have little or no money, and therefore the Merchants which traffique thither do exchange their wares for *Zebel* or *Sabel* skins; thoſe are the beſt which have moſt white and yellow hairs mingled in them, and the Garments of Princes are only fringed and lined with theſe *Sabel* skins, and honourable Matrons, ancient Noble men and their Wives do likewiſe uſe two or three of theſe to wear about their necks; for it is certain that a garment of theſe skins is much dearer then cloth of Gold, and I have heard and alſo read, that there have been two thouſand Duckets payed for ſo many as were put in one Cloak.

It is a very libidinous and luſtfull beaſt, and at that time ſtinketh very rankfully, wherefore it mingleth it ſelf with Martins of all ſorts that it meeteth. And thus much ſhall ſuffice to have diſcourſed of this little beaſt. Now there are divers other which ſeem to be of this kinde, of which, though I have not much to ſay, yet rather then they ſhould be omitted, I will expreſſe their bare names, that ſo I may give occaſion to all our Countrey-men that ſhall travail into other Nations, to make enquiry after them, that ſo at their return, if they have any conſcience of publique good, they may get themſelves eternall fame and names, by communicating publiquely their own knowledge, experience, and learning, which they have gained in theſe, or other Four-footed beaſts.

Of the *NOERTS*.

THis beaſt is of the quantity of a Weaſel, and by the *Germans* called *Noerts*, and *Nerts*, from which word the *Latines* have their *Noerza*, for this beaſt. It liveth (as *Georgius Agricola* writeth) in the Woods, betwixt *Swevia* and *Viſtula*, the colour of the hairs which is ſhort and ſmooth, is for the moſt part like an Otters. Their skins are ſold at *Franckford* by forty in a heap or bundle, they are long, and more red then the Ferrets, every bundle moſt commonly is ſold for ſix and twenty Nobles. Some think that this is the Latax, ſpoken of before, becauſe it getteth his living in the waters.

Of the *VARMEL*.

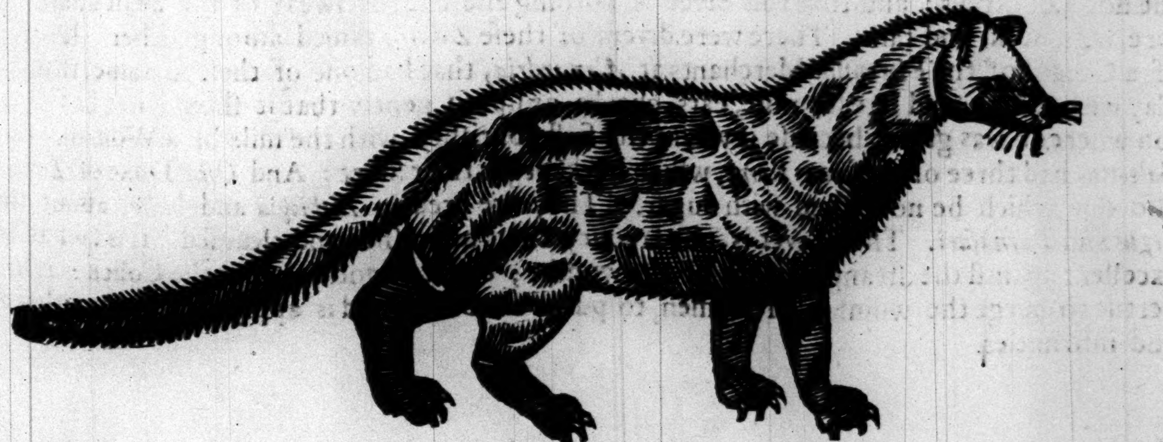
THis beaſt is called by the *Latines Vormela*, by the *Germans Wormiein*, it is leſſe then a Ferret, the *belly* whereof is black, all the reſidue of the skin full of white, pale, red, and yellow ſpots, which adorneth it in admirable manner, very comely and excellent to be looked upon, the tail not paſt half a hand breadth long, the tip whereof is black, but the hairs of the reſidue mixed with white and aſh colour together.

There is another beaſt which for the variety of the colours, which are apparent in his skin, he is called a *Salamander*, not that which liveth in the fire, but one like unto it, having a gentle hair, diſtinguiſhed all over into black and yellow ſpots, and theſe becauſe of our ignorance we reckon among our outlandiſh Weaſels.

In *India* there is a little beaſt called *Chiurca*, having a very precious skin, and this (as *Cardan* writeth) hath a bag under the belly, wherein it ſuffereth his young ones to go in and out, as before we have ſaid of the *Simivulpa*, or Foxe-Ape.

There is another little beaſt in *Hungaria*, called *Unoken*, which dwelleth in holes of the earth as Conies do, the outward proportion whereof is like a Weaſel, but it is much thinner and longer, the colour of the back is red, and all the reſidue of the body Mouſe colour. Now although I do not read any ſpeciall uſe of the skin of this beaſt, yet I thought it good to name it in this place, becauſe it is reported that the breathing thereof upon the face of man is venemous and poyſonfull, for when Souldiers ſleep in their tents upon the earth, they come many times and look in their faces and poyſon them: And thus much for the *Zebel*, and the ſeverall kindes of this little beaſt.

Of the *ZIBETH*, or *SIVET-CAT*.



THe beſt deſcription that is of this beaſt in all the World, that I could ever finde, was taken by Doctor *Cay*, and thus ſent as it is here figured to Doctor *Geſner* with theſe words following. There came to my ſight (ſaith Doctor *Cay*) a *Zibeth* or *Sivet* very lately, which was brought out of *Africa*, the picture and ſhape whereof in every point I cauſed to be taken, which is this prefixed, ſo that one Egge is not more like another, then this is to the ſaid *Sivet* or *Zibet*. It is greater then any Cat, and leſſer then a *Taxus*, having a ſharp face like a Martin, a ſhort, round, blunt ear, which was black without, but pale within, and on the brims a blew ſky-coloured eye, a foot and leg black, and more broad or open then a Cats: Likewiſe a black claw, neither ſo crooked, nor ſo hid in the foot as it is in a Cat, but their teeth are more fearfull and horrible. It is all ſpotted over the body, but the noſe thereof is black, the nether part of the upper chap pale, and the middle part black, and from thence to the top of the head it is of the colour of a Badger. The lower chap was all black, and the briſtles of the upper chap were white, growing forth of a pale skin, and a little above the eye there were two other white ones growing forth of a black skin.

The throat thereof was black, and a little above the eye there ariſe three black lines or ſtrakes, whereof the firſt or uppermoſt deſcendeth down right to the throat, the ſecond deſcendeth compaſſe in and out to the middle of the neck, and the third down to the ſhoulder, and then a little beneath that place on the contrary, ariſe two other black lines like circles aſcending in the compaſſe of the ſhoulder to the back bone: and all the reſidue of the body is diſtinguiſhed and parted into many colours, having divers and ſundry black ſpots ſcattered abruptly throughout the whole circuit, whereof ſome are continued and joyned together. For that which is upon the back is continued from the ſhoulder, and the ſecond and third ariſing in that part, are broken and divided, the fourth and all the reſidue are in like ſort diſcontinued and ſeparated one from the other, ſo that their poſition runneth all in length.

The firſt part of his tail to the middle is ſpotted, and all the reſidue black. The hair both on the face, legs, and feet, is ſoft, and very gentle to be handled, falling down, but in all other parts of the body, it is harſh, deep, and ſtanding upright: the ſpots doth both aſcend and deſcend, the tongue hereof was ſmooth and not rugged, and under the tail was the paſſage for the excrements after the faſhion in other beaſts, and a little beneath the ſame was the receptacle or bag containing the Sivet, and a little ſpace after that the privy part of the male which was hid or ſheathed in the body. The beaſt being moved to anger, uttereth a voyce like to the voyce of an angry Cat, withall doubling the letter R R. but being not angry the voyce is like a young Cats although lower.

This *Zibeth* was in length from the head to the tail, one foot, three palms, and one *Roman* fingers breadth, but the breadth thereof under the belly, was one foot, two palms, and three *Roman* fingers. It was a gentle and tractable Creature, and was ſold for eight pounds of *Engliſh* money, which was in *French* twenty four Crowns, or in Florens forty and eight. Theſe things are ſaid by Doctor *Cay*. Now unto this *Geſner* addeth, that he received ſuch another Picture from one *Johannes Kentmannus*, which he took by another of theſe Cats in the poſſeſſion of the Duke of *Saxony*, and he ſaid that it was bought by him for ſeventy Taters (every Tater being worth in our *Engliſh* money eight pence half penny) in the year of the Lord, 1545. This beaſt is a very clean beaſt, I mean, a hater of filthineſſe: and therefore the place wherein it lyeth muſt be ſwept every day, and the Veſſels clean waſhed. The Sivet or liquor diſtilled out of the Cod, muſt be taken away every ſecond or third day, or elſe the beaſt doth rub it forth of his own accord upon ſome poſte in his kennel, if he be tamed or incloſed. This Sivet is an Excrement not growing in the ſecret part only, but in a peculiar receptacle by it ſelf, increaſing every day the weight of a groat; the colour whereof at the beginning is like Butter, but afterwards it groweth more ſad and brown: one ounce of it if it be pure and not ſophiſticated, is ſold for eight Crowns at the leaſt. There be Impoſtors, which do adulterate it with an Oxes gall, Styrax, and Hony. This is of a ſtrange ſavour, and preferred before Musk by many degrees, yet it ſmelleth worſe if it be held hard to the noſe: It is ſaid that the liquor running out, doth go back again if any Veſſel be put to receive it, except it be a Silver Spoon or Porringer.

Leo Afer ſaith, theſe Beaſts are wilde, untamable, and live upon fleſh, but the *European* Merchants buy of the young ones and nouriſh them tame, with Bran, Milk, hard Egges, and other things, and that ſo they convey them into *Europe* out of *Africk*, emptying their Cods twice or thrice a day in the hot Countreys; and that this Sivet is nothing elſe but the ſweat of the beaſt under the ribs, fore-legs, neck, and tail. There were divers of theſe *Zibeths* tamed among other. It is reported of a Conſul of the *Florentine* Merchants at *Alexandria*, that had one of theſe ſo tame, that it would play with a man, and bite his noſe, ears, cheeks, or lips ſo gently that it ſhould not be felt, the reaſon whereof was given, becauſe it was at the firſt nouriſhed with the milk of a Woman. Cardinall *Galeottus* had three of theſe at *Rome*, which he kept for their Sivet: And *Otho* Duke of *Bavaria*, had alſo one which he nouriſhed with Sugar. They are bred in *Æthiopia* and *India*, about the City *Pegus* and *Tarnaſari*. Their Sivet is not ſavoury till it be waſhed and cleanſed. It is ſaid to be very excellent againſt the ſtrangulations of the wombe; and it is good againſt the Colick: It hath alſo vertue to purge the wombes of women, to purge the brain, and is applyed to many other diſeaſes and infirmities.

The end of the Hiſtory of Four-footed Beaſts.

THE HISTORY OF SERPENTS:

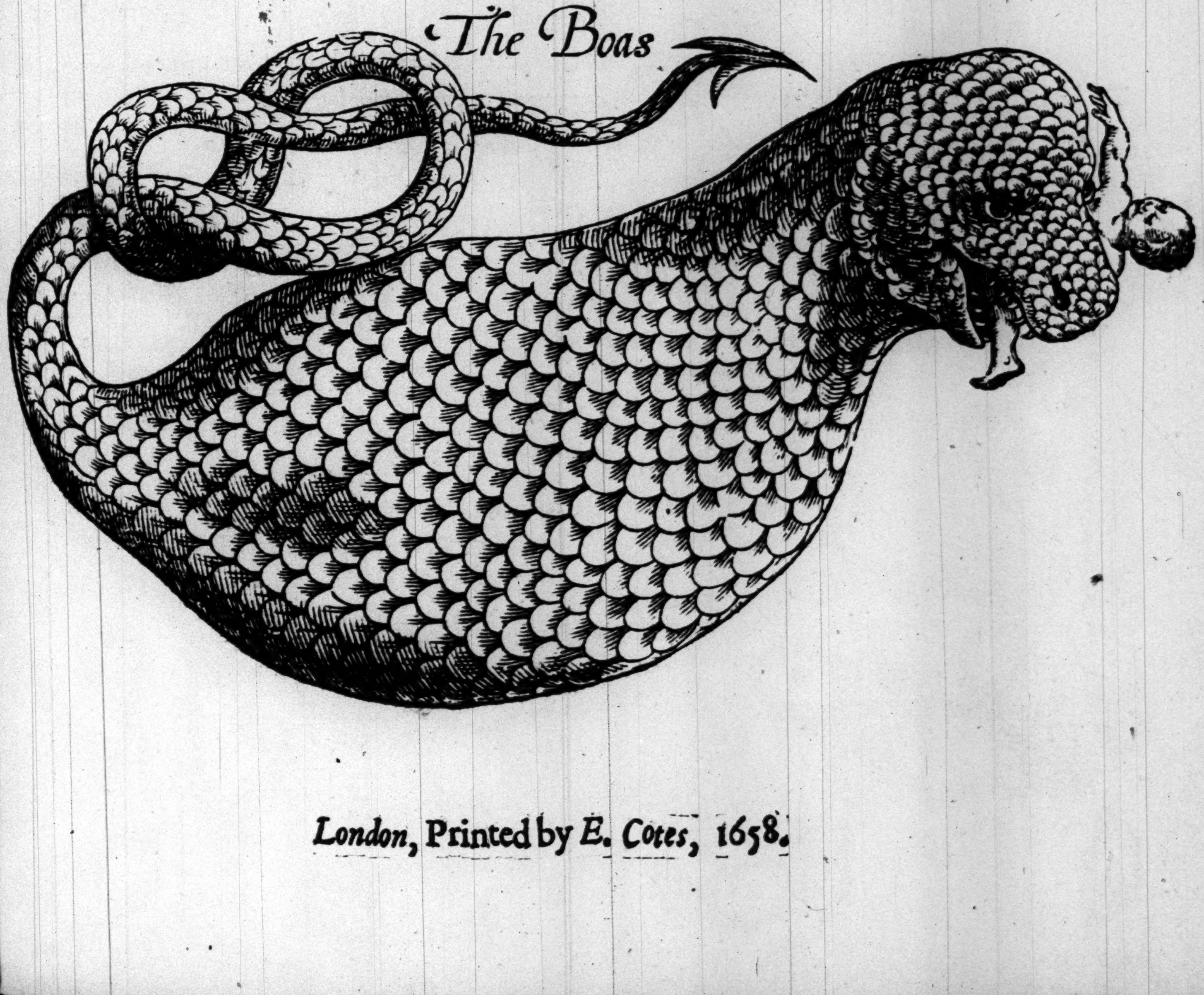
OR,

The ſecond Book of living Creatures:

WHEREIN IS CONTAINED
Their Divine, Natural, and Moral deſcriptions, with their
lively Figures, Names, Conditions, Kindes, and Natures of all venomous
BEASTS: with their ſeveral Poyſons and Antidotes; their deep hatred to
Mankinde, and the wonderful work of God in their Creation, and Deſtruction.

Neceſſary and profitable to all ſorts of Men: Collected out of divine Scriptures,
Fathers, Philoſophers, Phyſitians, and Poets: amplified with ſundry accidental
Hiſtories, Hierogliphycks, Epigrams, Emblems, and Ænigmatical Obſervations.

By EDVVARD TOPSELL.



London, Printed by *E. Cotes*, 1658.

To the Reader.

GEntle and pious Reader, although it be needleſſe for me to write any more of the publiſhing of this Treatiſe of Venemous Beaſts, yet for your better ſatisfaction and direction, briefly take this which followeth.

After the publiſhing of the former book of *Four-footed Beaſts*, I underſtood of two things much miſliked therein, wherein I alſo my ſelf received a juſt offence. Firſt, the manifold eſcapes in the Preſſe, which turned and ſometimes overturned the ſenſe in many places, (eſpecially in the *Latine*) which fault as it may in part concern me, ſo yet it toucheth another more deeply, yet are both of us excuſable: He in wanting the true knowledge of the *Latine* Tongue; and I, becauſe of my employment in my Paſtorall charge, and both of us together, becauſe we were not ſo throughly eſtated, as to maintain a ſufficient Scholar to attend only upon the Preſſe. Wherefore, in this ſecond Book, we have removed away that blot, and uſed a more accurate diligence, and I truſt there is no eſcape committed perverting the ſenſe, and not very many altering the letters.

The firſt fault is in this Edition amended.

The ſecond exception taken againſt the former Treatiſe, was the not Engliſhing or tranſlating of the *Latine* Verſes, which thing I purpoſed to have done, if I had not been overhaſtened in the buſineſſe; for it had been to the work an Ornament, and to the Hiſtory a more ample declaration: This fault I have now amended in the ſetting forth of this ſecond Book of *Living Creatures*. All therefore that can be ſaid for your direction, I could wiſh the Hiſtory more compleat for the manifeſtation of the moſt bleſſed *Trinities* glory, whoſe works are here declared; and for the better revelation of the ſeverall natures of every Serpent. I may fail in the expreſſing of ſome particular, yet I ſuppoſe that I have omitted no one thing in their narration, which might be warranted by good authority or experience. And therefore, although I cannot ſay that I have ſaid all that can be written of theſe living Creatures, yet I dare ſay I have wrote more then ever was before me written in any Language.

Now therefore *ask the Creatures (after God) and they will tell you*: For, ſaith S. *Auſtin*, *Interrogatio creaturarum profunda eſt conſideratio ipſarum: reſponſio earum, atteſtatio ipſarum de Deo, quoniam omnia clamant, Deus nos fecit*. The asking of the Creatures is a deep and profound conſideration of their ſeverall natures: their anſwer is, their atteſtation or teſtimony of God, becauſe all of them cry out, *The Lord hath made us*. Wherefore, ſeeing it is moſt true, *incognita non deſiderantur*, things unknown are not deſired, to the intent that all true *Engliſh* Chriſtians may hereafter more affectionately long after and deſire, both the myſticall viſion of God in this World, and alſo his perfect ſight in the World to come, I have (for my part) out of that weak ability wherewith I am endued, made known unto them in their own mother Tongue, the wonderfull works of God; for the admiring of Gods praiſe in the Creatures, ſtandeth not in a confuſed ignorance, not knowing the beginnings and reaſon of every thing, but rather in a curious and artificiall inveſtigation of their greateſt ſecrets.

Therefore, let all living men conſider every part of divine wiſdome in all his works; for if it be high, he thereby terrifieth the proud; by the truth he feedeth the great ones; by his affability he nouriſheth the little ones. And ſo I will conclude my Preface with the words of the three Children: *O all ye works of the Lord, praiſe him and magnifie him for ever.*

Edward Topſell.

A GENERAL TREATISE OF SERPENTS,

DIVINE, MORAL, and *NATURAL.*

Of the Creation and firſt Beginning of SERPENTS.

THere is no Man that can juſtly take exception that this Hiſtory of Serpents beginneth at their Creation: for ſeeing our purpoſe is, to ſet forth the works of GOD, by which as by a clear glaſs, he endevoureth to diſperſe and diſtribute the knowledge of his Majeſty, Omnipotency, Wiſdom and Goodneſs, to the whole race of Mankinde, it ſeemeth moſt proper that the firſt ſtone of this building, laid in the foundation be fetched from the Creation: and the rather, becauſe ſome Naturaliſts (eſpecially amongſt the ancient Heathen) have taken the Original of theſe venomous Beaſts, to be of the earth, without all reſpect of Divine and Primary Creation. And hereunto ſome Hereticks, as the *Manichees*, and *Marcionites*, have alſo ſubſcribed, though not directly, for they account the Creation of theſe venomous and all hurtful Beaſts an unworthy work for the good GOD, becauſe they could never ſee any good uſe of ſuch creatures in the World.

Auguſtine.
Epiphan.

Yet we know the bleſſed Trinity created the whole frame of this viſible World by it ſelf, and for good, reaſonable, and neceſſary cauſes, framed both the beneficial and hurtful Creatures, either for a Phyſical or Metaphyſical end. Therefore it is moſt certain, that if we conſider the outward parts of theſe Creatures endued with life, no man nor nature could begin and make them, but the firſt Eſſence or Fountain of life: and if we can be brought to acknowledge a difference betwixt our ſhallow capacity, and the deep wiſdom of God, it may neceſſarily follow by an unavoidable ſequel, that their uſes and ends were good, although in the barrenneſs of our underſtanding, we cannot conceive or learn them. But I purpoſe not to follow theſe things Philoſophically by arguments, but rather Divinely by evident demonſtration of the things themſelves. And firſt of all, it appeareth, Gen. 1.24. that God brought out of the earth *all creeping things after their kinde*: And leſt that any man ſhould doubt, that under the general name of creeping things, Serpents, and other venomous Beaſts, were not intelligibly enough expreſſed, it is added Chap. 3.1. *That the Serpent was more ſubtile then all the Beaſts of the field which God had made.* The Prophet *David* alſo, Pſal. 148.7. among other things which are exhorted by the Prophet to praiſe their Creator, there are named Dragons, which are the greateſt kinde of Serpents. Unto this alſo alluded S. *James*, ch. 3.7. ſaying: *That the whole nature of Beaſts, and of Birds, of creeping things and things in the Sea is tamed by the nature of Man*: for Man, which is next unto God, hath authority and power, to rule over all his works, and therefore over Serpents.

Zanchius.

And herein it is fit to ſhew, what wonders men have wrought upon Serpents, taming and deſtroying them rather like Worms and Beaſts, no ways enemies to mankinde, but friendly, and endued with ſociable reſpect, or elſe as weaklings commanded by a ſuperior power. Such an one was *Atyr* a notable Inchanter, who by touching any Serpent brought it into a deadly ſleep: according to theſe verſes;

Textor.

> *Nec non Serpentes diro exarmare veneno,*
> *Doctus Atyr: tactuque graves ſepire chelydros.*

In Engliſh thus;

> *The cunning Atyr, Serpents fierce, of poyſon did diſarm,*
> *And Water-ſnakes to deadly ſleep, by touching he did charm.*

Alviſius Gadamuſtus, in his deſcription of the new World, telleth an excellent hiſtory of a *Ligurian* young man, being among the *Negroes* travelling in *Africk*, whereby he endevoureth to prove, how ordinary and familiar it is to them, to take and charm Serpents, according to the verſe of the Poet:

Frigidus in pratis cantando rumpitur anguis.

That is,

The cold-earth-ſnake in Medows green,
By ſinging, broke in pieces may be ſeen.

The young man being in *Africk* among the *Negroes*, and lodged in the houſe of a Nephew to the Prince of *Budoniel*, when he was taking himſelf to his reſt, ſuddenly awaked by the hearing the unwonted noiſe of the hiſſing of innumerable ſorts of Serpents; whereat while he wondred, and being in ſome terror, he heard his Hoſt (the Princes Nephew) to make himſelf ready to go out of the doores, (for he had called up his ſervants to ſaddle his Camels:) the young man demanded of him the cauſe, why he would go out of doores now ſo late in the dark night? to whom he anſwered, I am to go a little way, but I will return again very ſpeedily: and ſo he went, and with a charm quieted the Serpents, and drove them all away, returning again with greater ſpeed then the *Ligurian* young man his gueſs expected. And when he had returned, he asked his gueſs if he did not hear the immoderate hiſſing of the Serpents? and he anſwered, that he had heard them to his great terrour: Then the Princes Nephew (who was called *Bisboror*) replyed, ſaying; they were Serpents which had beſet the houſe, and would have deſtroyed all their Cattel and Herds, except he had gone forth to drive them away by a charm, which was very common and ordinary in thoſe parts, wherein were abundance of very hurtful Serpents.

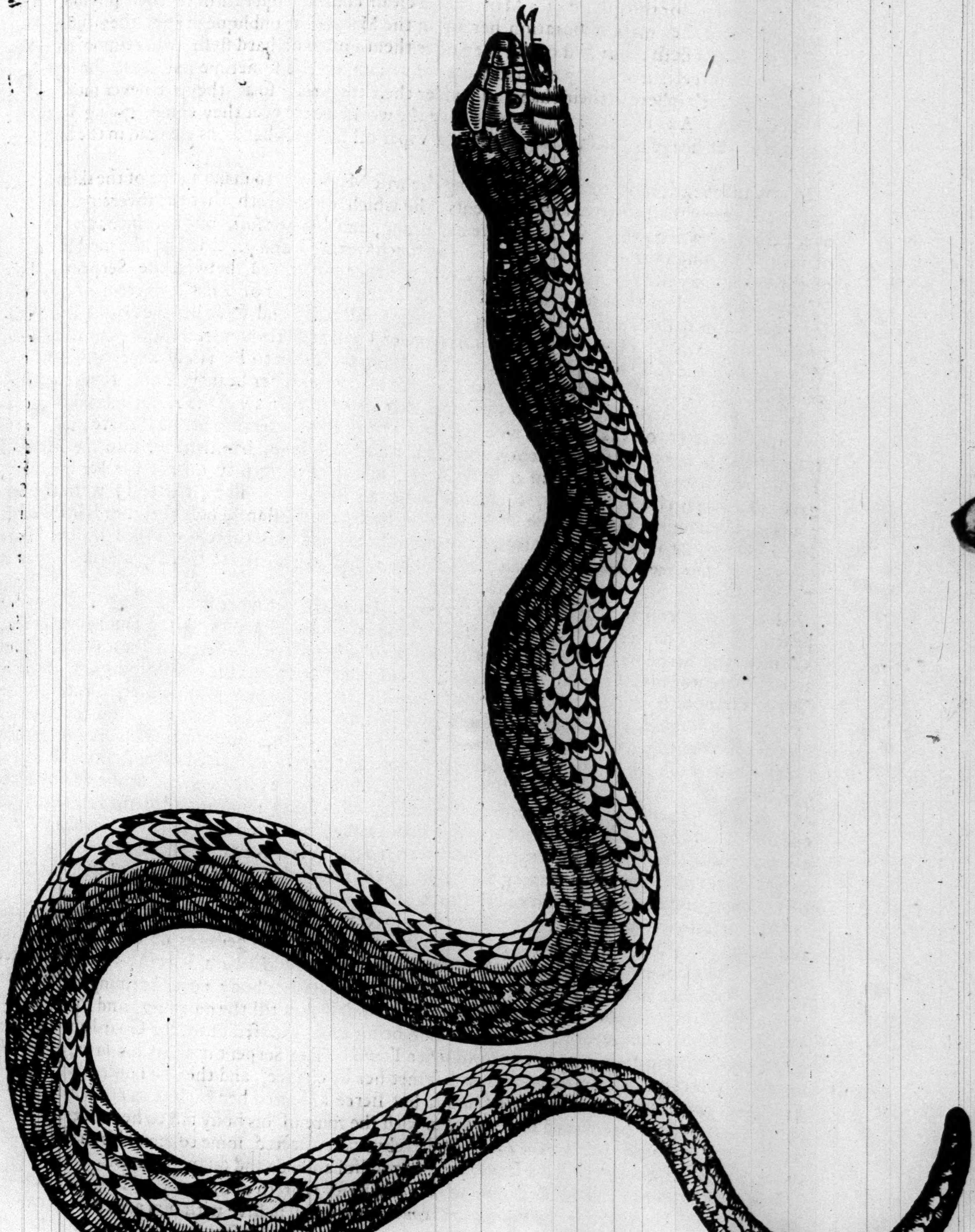
The *Ligurian* young man hearing him ſay ſo, marvailed above meaſure, and ſaid, that this thing was ſo rare and miraculous, that ſcarſely Chriſtians would believe it. The *Negro* thought it as ſtrange that the young man ſhould be ignorant hereof, and therefore told him, that their Prince could work more ſtrange things by a charm which he had, and that this and ſuch like were ſmall, vulgar, and not to be accounted miraculous. For when he is to uſe any ſtrong poyſon upon preſent neceſſity, to put any man to death, he putteth ſome venom upon a ſword, or other piece of Armor, and then making a large round circle, by his charm compelleth many Serpents to come within that circle, he himſelf ſtanding amongſt them, and obſerving the moſt venomous of them all ſo aſſembled, which he thinketh to contain the ſtrongeſt poyſon, killeth him, and cauſeth the reſidue to depart away preſently; then out the dead Serpent he taketh away the poyſon, and mixeth it with the ſeed of a certain vulgar tree, and therewithal anointeth his dart, arrow, or ſwords point, whereby is cauſed preſent death, if it give the body of a man but a very ſmall wound, even to the breaking of the skin, or drawing of the bloud. And the ſaid *Negro* did earneſtly perſwade the young man to ſee an experiment hereof, promiſing to ſhew all as he had related, but the *Ligurian* being more willing to hear ſuch things told, then bold to attempt the trial, told him, that he was not willing to ſee any ſuch experiment. And by this it appeareth, that all the *Negroes* are addicted to Incantations, which never have any approbation from GOD, except againſt Serpents, which I cannot very eaſily be brought to believe.

And ſeeing I have entered into this paſſage of Charming, being (no doubt) an invention of Man, and therefore argueth his power to tame theſe venomous Beaſts, according to the former ſaying of Saint *James*, although I condemn ſuch courſes utterly, yet it is lawful to proſecute the ſame, ſeeing the holy Ghoſt, Pſalm 58. verſ. 4, 5. affirmeth a practiſe againſt Serpents, a dexterity and ripeneſs in that practiſe, and yet an impoſſibility to affect any good, except the voyce of the Charmer come to the ear of the Adder: For thus he writeth; *Their poyſon is like the poyſon of a Serpent, like a deaf Adder that ſtoppeth his ear.* 5. *Which heareth not with the voyce of the Inchanter, though he be moſt expert in cunning.* Upon which words Saint *Auguſtine*, Saint *Jerom*, and *Caſſidorus* writing, ſay; that when the Charmer cometh to Inchant or Charm, then they lay one of their ears to the earth ſo cloſe, as it may not receive the ſound, and their other ear they ſtop with their tail. I will therefore yet add ſomewhat more of this taming of Serpent.

Mr. *Will. Morley* of *Glynde* in *Suſſex.*

I have heard a Gentleman of ſingular learning, and once my worſhipful good friend, and dayly encourager unto all good labours, report divers times very credibly, upon his own knowledge and eye-ſight, that being at *Padua* in *Italy*, he ſaw a certain Quack-ſalver, or Mountebanck upon a ſtage, pull a Viper out of a box, and ſuffered the ſaid Viper to bite his fleſh, to the great admiration of all the beholders, receiving thereby no danger at all. Afterward he put off his doublet and ſhirt, and ſhewed upon his right arm a very great unwonted blew vein, ſtanding beyond the common courſe of nature; and he ſaid, that he was of the linage of Saint *Paul*, and ſo were all other that had ſuch veins, and that therefore (by ſpecial vertue to that Family given from above) no Viper nor Serpent could ever annoy or poyſon them: but withall, the fellow drank a certain compound water, or antidote, for fear of the worſt, and ſo at one time vented both his ſuperſtitious hypocriſie, and alſo much of his Antidote to his great advantage,

But I have ſince that time alſo read, in *Matthiolus* his Commentaries upon the ſixth Book of *Dioſcorides*, that there were wont to be many ſuch Juglers in *Italy*, carrying in their boſomes living Serpents, of whoſe fraudulent Impoſtures he ſpeaketh in this ſort. They take Serpents in the



Winter time, when they grow dead and ſtiffe through cold, & yet for their better defence againſt their venomous biting, they defend themſelves by a certain experimental unguent, known to be practiſed in this ſport, made of the Oyl preſſed out of wilde Radiſh, the roots of Dragonwort, the juyce of Daffodil, the brain of a Hare, the leaves of Sabine, ſprigs of Bay, and ſome other few things thereunto added. Aſſoon as they have taken them, they inſtantly all to ſpet upon their heads, for by reaſon of a ſecret antipathy in Nature, they grow very dull thereby, and lay aſide the force and rage of venom; for the ſpettle of a Man, is of a clean contrary operation to their poyſon. And when afterward they make oſtentation hereof in the Market, or publique Stage, they ſuffer them to bite their own fleſh: but firſt of all, they offer them a piece of hard fleſh, whereupon they bite to cleanſe their teeth from all ſpawn and ſpume of venom, or elſe ſometime pull forth the little bags of poyſon, which inhere in their chaps, and under their tongues, ſo as they are never more repleat or filled again: And by this deceit they deceive the world where ever they come, giving forth that they are of the linage of Saint *Paul*, who caſt a Viper off from his hands, as we read in the holy Scripture.

It was an invention of ancient time among the wiſe Magitians, to make a pipe of the skins of Cats legs, and therewithall to drive away Serpents; by which it appeareth, that the ſoveraignty of Man over Serpents, was given by **GOD** at the beginning, and was not loſt, but continued after the fall of man, (although the hand that ſhould rule be much weaker) and practiſed by the moſt barbaroue of the world, neceſſity of the defence forcing a violence and hatred, betwixt the Serpent and the Womans ſeed. For this cauſe we read of the ſeaven daughters of *Atlas*, whereof one was called *Hyas*, whoſe daily exerciſe was hunting of venomous Beaſts, and from her the *Hyades* had her denomination. And for a concluſion of this Argument, I will adde this one ſtory more out of *Ælianus*. When *Thonis* the King of *Egypt* had received of *Menelaus*, *Helen* to be ſafely kept, whiles he travelled through *Æthiopia*, it hapned that the King fell in love with her beauty, & oftentimes endevoured by violence to raviſh her; then, it is alſo ſaid, that *Helen*, to turn away the Kings unlawful luſt, opened all the matter to *Polydamna* the wife of *Thonis*, who inſtantly fearing her own eſtate, leſt that in time to come, fair *Helen* ſhould deprive her of her husbands love, baniſhed her into the Iſland of *Pharus*, which was full of all manner of Serpents, and yet taking pity on her for her ſimplicity, gave her a certain herb, whereby ſhe drove away all Serpents. For (it is ſaid) when the Serpents and venomous Beaſts do but ſmell the ſame herb, they inſtantly hide their heads in the earth. *Helen* coming into that Iſland planted the ſame there, and was therefore called by the Inhabitants after her own name *Helenium*, which the skilful Herboriſts at this day affirm to grow in *Pharus*.

Plutarch.
Ca. Oppius.
Jul. Higinus.
Gellius.
Pierius.

Unto this diſcourſe of the taming of Serpents, I may add yet more ſtrange things, if any thing be ſtrange in the nature of this world. And thoſe are ſome Hiſtories of the familiarity of Men, Women and Serpents. *Alexander* was thought to be begotten of a Serpent, for it is ſaid, that on a time there was found a great Serpent upon his Mother *Olympia* as ſhe was ſleeping; and ſome ſay (for the honour both of the Mother and the Son) that this Serpent was *Jupiter*, turned into the likeneſs of a Serpent, as we read he changed himſelf into many other ſhapes. And the like ſtory unto this, is alledged of *Scipio Africanus* his mother, who long time remained barren without the fruit of the womb, inſomuch as *P. Scipio* her husband utterly deſpaired of poſterity. It hapned one day, as ſhe was in her bed, her husband being abſent, there came a great Snake and lay beſide her, even in the preſence of the ſervants and family, who being mightily aſtoniſhed thereat, cryed out with loud voyces for fear, whereat the woman awaked, and the Snake ſlid away inviſibly. *P. Scipio* hearing this report at his return home, went to the Wizards to underſtand the ſecret or ſignification of this prodigie: who making a ſacrifice, gave anſwer that it betokened prolification, or birth of children, and thereupon followed the birth of *Scipio Africanus*.

Pierius.

We read alſo in *Plutarch* of certain Serpents, lovers of young Virgins, who after they were taken and inſnared, ſhewed all manner of luſtful, vitious, and amorous geſtures of uncleanneſs and carnality; and by name, there was one that was in love with one *Ætolia* a Virgin, who did accuſtom to come unto her in the night time, ſliding gently all over her body never harming her, but alone glad of ſuch acquaintance, tarryed with her in that dalliance till the morning, and then would depart away of his own accord: the which thing being made manifeſt unto the Guardians and Tutors of the Virgin, they removed her unto another Town. The Serpent miſſing his love, ſought her up and down three or four days, and at laſt met her by chance, and then he ſaluted her not as he was wont, with fawning, and gentle ſliding, but fierce aſſaulted her with grim and auſtere countenance, flying to her hands, and binding them with the ſpire of his body faſt to her ſides, did ſoftly with his tail beat upon her backer parts. Whereby was collected, ſome token of his chaſtiſement unto her, who had wronged ſuch a Lover with her wilful abſence and diſappointment.

It is alſo reported by *Ælianus*, that *Egemon* in his verſes, writeth of one *Aleva* a *Theſſalian*, who feeding his Oxen in *Theſſaly*, near the Fountain *Hæmonius*, there fell in love with him a Serpent of exceeding bigneſs and quantity, and the ſame would come unto him, and ſoftly lick his face and golden hair, without doing him any manner of hurt at all.

Theſe, and ſuch like things do evidently prove, that Serpents are not only involuntarily tamed by Men, but alſo willingly keep quarter with them, yeelding to the firſt Ordinance of the Creator, that made them ſubjects and vaſſals to men. And thus much ſhall ſuffice to have ſpoken in this place, concerning the firſt cteation of Serpents.

Of the natural Generation of SERPENTS, *and their ſeveral Originals.*

IT being thus cleared, that Serpents were at the beginning created by GOD, and are ruled by men, it now followeth, that we ſhould in the next place talk of the matter of their beginning, and the means of their continuance ever ſince their Creation.

Firſt therefore it is moſt plain in Geneſis, that the Earth (by the vertue of the Word of GOD) did produce all Creeping things, and among them Serpents: but ſince that time, they have engendered both naturally, and alſo prodigiouſly.

As concerning their conſtitution, it is held to be moſt cold, above all other living Creatures; *Pliny.* and therefore *Pliny* writeth, that they have neither heat, nor bloud, nor ſweat. Hereunto ſubſcribeth *Galen.* *Galen* and *Raſis*; yet *Avicen* ſeemeth to affirm the contrary. *Mercurial* decideth this controverſie, and proveth that Serpents are extreamly cold, and their bodies outwardly moiſt. Firſt, becauſe thoſe which are ſtung and poyſoned by Serpents, are oppreſſed with an unnatural cold, which overcometh natural heat, and diſtendeth all their parts, vexing them intolerably. Secondly, there can be aſſigned no other reaſon why theſe Creatures hide themſelves four moneths in the year, but only their natural cold, making them ſo tender, as they are altogether unfit to endure any external frigidity. Thirdly, if a man take a Snake or a Serpent into his handling in the midſt of Summer, and warmeſt part of the year, yet ſhall he perceive that they are cold in a palpable manner being alive, which is not a quality competible to any other creature. Fourthly, ſeeing that bloud is the proper and native ſeat of all heat in natural living bodies, Serpents having a very ſmall quantity of bloud, muſt alſo have a ſmaller proportion of heat: and therefore it followeth unavoidably, that the eminency of their temperament is cold in the higheſt degree, above all other living Creatures. And that their bodies be outwardly moiſt, it appeareth (ſaith *Iſidorus*) by this, that when they ſlide along upon the Earth, (which way ſoever they go) they leave behinde them in their train or path a ſlimy humour.

By this therefore it is confirmed, that they are of the Earth and of the Water, as afterward we ſhall ſhew in the deſcription of their kindes. But yet there are prodigious beginnings of Serpents, *Plutarch.* whereof ſome ſeem to be true, and other to be fabulous. The firſt ſort are thoſe which *Pliny* affirm- *Pierius.* eth to be engendred of the marrow in the back-bone of a man, and that indifferently, out of the *Textor.* dead bodies of good and evill men. Yet ſome more modeſt, thinking it unreaſonable, that the remnants of a good meek man, ſhould beget or be turned into ſo barbarous, venomous, and cruel a nature; rather taking it for granted, that peace and quietneſs is the reward of ſuch perſons, attribute theſe beginnings or alterations to the bodies of wicked men, as a juſt deſerved puniſhment of their former evils, that the reverſions of their bodies ſhould after death turn into Serpents, whom they reſembled being alive in the venomous fraud of their ſpirits. Of this *Ovid* ſpeaketh.

> *Sunt quæ cum clauſo putrefacta eſt Spina ſepulchro,*
> *Mutari credunt humanas angue medullas.*
> Which may be thus Engliſhed,
> *Some think the putrid back-bone in the grave rack'd,*
> *Or marrow chang'd, the ſhape of Snakes to take.*

In *Egypt*, as Frogs and Mice are engendred by ſhowres of rain, ſo alſo are Serpents: And *Avicen* *Macrobius.* ſaith, that the longeſt hairs of women are eaſily turned into Serpents. *Nicander* dreameth, that all *Cœlius Rho.* venomous Beaſts are engendred of the bloud of the *Titans* or Giants. *Acuſilaus*, of the bloud of *Pliny.* *Typhon*. *Apollonius Rhodius*, of the drops of bloud which do diſtil from *Gorgons*. *Virgilius* ſaith, that dung being laid in a hollow place, ſubject to receive moiſture, engendereth Serpents. Of the *Gorgons* drops, *Ovid* writeth thus;

> *Cumque ſuper Lybicas victor penderet arenas,*
> *Gorgonei capitis guttæ cecidere cruentæ,*
> *Quas humus exceptas, varios animavit in angues,*
> *Unde frequens illa eſt infeſtaque terra colubris.*
> Which may thus be Engliſhed: ——— *And as he over flew*
> *The Lybick ſands, the drops of bloud that from the head did ſew*
> *Of Gorgon being new cut off, upon the ground did fall,*
> *Which taking them, and as it were conceiving them withall,*
> *Engendred ſundry Snakes and Worms: by means whereof that Clime*
> *Did ſwarm with Serpents ever ſince, to this ſame preſent time.*

But moſt ſtrange of all other, are the ſucceeding Narrations. For it is reported that when *L. Scipio*, and *C. Norbanus* were Conſuls, that the Mother of *Cluſius* in *Hetruria*, brought forth a living Serpent in ſtead of a childe, and the ſaid Serpent by the command of the Wizards was caſt into a River, nevertheleſs it would not drown, but ſwimmed againſt the ſtream. And *Pliny* ſaith, that at the beginning of the *Marſyck* war, there was a maid-ſervant that brought forth another Serpent. And

Fauſtina

Obſequens. *Fauſtina* the Empreſs dreamed that ſhe brought forth Serpents, when ſhe was with childe of *Commodus* and *Antoninus*, and one of theſe Serpents ſeemed more fierce then the other, which proved allegorically true: for afterward *Commodus* was ſo voluptuous and tyrannous, that he ſeemed like a Serpent to be born for nothing, but for the deſtruction of mankinde.

In the year of our Lord 1551. there was a little *Latine* Book printed at *Vienna*, wherein was contained this Hiſtory following. In this Summer (ſaith the Book) about *S. Margarites* day, there happened moſt rare and admirable accidents: for near a Village called *Zichſa*, by the River *Theoſe* in *Hungaria*, there were many Serpents and Liſards bred in the bodies of men, very like to ſuch as are bred in the earth, whereupon they fell into exquiſite torments: and there dyed of that calamity, about three thouſand, and ſome of the bodies being laid againſt the Sun gaping, the Serpents came forth of their mouths, and ſuddenly entred into their bellies again. Amongſt other, there was a certain Noblemans daughter which dyed of that malady, and when ſhe was diſſected or ripped, there were found in her body two great Serpents. Theſe things ſeem to be miraculous, and above the order of Nature: yet credible, becauſe in our experience in *England*, there have been Worms like Serpents found in the bodies of men, whereof ſome have been ejected the parties being alive, and other when as the parties were dead. But that theſe beginnings of Serpents being unnatural, are Divine and ſent from God as ſcourges, it may appear by another notable Hiſtory, recorded in the aforenamed Book, both in the ſame year, and in the ſame Countrey.

There was (ſaith mine Author) found in a mow or ryck of Corn, almoſt as many Snakes, Adders, and other Serpents, as there were ſheafs, ſo as no one ſheaf could be removed, but there preſently appeared a heap of ugly and fierce Serpents. The Countrey-men determined to ſet fire upon the Barn, and ſo attempted to do, but in vain, for the ſtraw would take no fire, although they labored with all their wit and policy to burn them up. At laſt, there appeared unto them at the top of the heap a huge great Serpent, which lifting up his head ſpake with mans voice to the Countrey-men, ſaying: *Ceaſe to proſecute your deviſe, for you ſhall not be able to accompliſh our burning, for we were not bred by Nature, neither came we hither of our own accord, but were ſent by God to take vengeance on the ſins of men.* And thus much for the true and natural beginnings of Serpents.

Now we read in read in holy Scripture, that the rod of *Moſes* was turned into a Serpent by divine miracle, whereby he was aſſured of the power that God would give him to deliver his people *Iſrael* out of *Egypt*, which land abounding with Serpents, both natural bred in the earth, and moral, ſuch are crafty and politick Princes and people: yet *Moſes* ſhould take them as he did his Serpent by the tail, and cauſe them to bend unto him like as it were a wand, or elſe ſome other little walking ſtaffe: and alſo that his power ſhould be unreſiſtible, becauſe his Serpent devoured others. The Magitians or Sorcerers, (as *Jannes* and *Jambres*) reſiſted him, and alſo turned their rods into Serpents. But *Moſes* did it by true piety, they by diabolical deluſions, as falſe Chriſtians many times work miracles by outward ſignes of true piety, and therefore *Moſes* rod overcame the Sorcerers Serpents, becauſe the end of fraud and falſehood is, to be overcome by truth and piety.

From this changing of rods into Serpents, came the ſeveral metamorphoſing of ſundry other things into Serpents alſo, as that tale of *Orpheus* head, after he was torn in pieces by the *Thracian* women; and the ſame thrown into a River, was taken up in *Lemnos*. The Poet deſcribeth it thus;

Hic ferus expoſito peregrinis anguis arenis
Os petit, & ſparſos ſtillanti rore capillos
Lambit, & hymniferos inhiat divellere vultus:
Tandem Phœbus adeſt: morſuſque inſerre parantem
Arcet, & in Lapidem rictus Serpentis apertos
Congelat, & patulos ut erant indurat hiatus.

In Engliſh thus;

No ſooner on the forain coaſt now caſt a-land they were,
But that cruel natur'd Snake did ſtraight upon them fly,
And licking on his ruffled hair, the which was dropping dry,
Did gape to tyre upon thoſe lips that had been wont to ſing
The heavenly hymnes. But Phœbus ſtraight preventing that ſame thing,
Diſpoints the Serpent of his bait, and turns him into ſtone,
With gaping chaps, &c.——

So *Iſacius Tzetzes* writeth, that when *Tireſia* found Serpents in carnal copulation in *Citheron*, he ſlew a female, who preſently after death was turned into a Woman, then alſo he ſlew a male, who likewiſe being dead, was in the ſame place and manner turned into a Man. When *Cadmus* was was ſent by his Father, to ſeek out his ſiſter *Europa* that was raviſhed by *Jupiter*, with ſtraight charge not to return back again except he could finde her, having ſpent much time in ſeeking her to no purpoſe, becauſe he could not finde her, and not daring to go back again to his father; he was warned by the Oracle that he ſhould go into *Bœotia* to build a City. Coming thither, he ſent his companions to the fountain of *Mars* that was in the Countrey to fetch water, where a great Serpent came and killed them; at laſt, *Cadmus* not finding their return, went likewiſe to the ſame Fountain, where he he found all his men ſlain, and the Serpent approaching to aſſail him but he quickly killed it. Afterward he was admoniſhed by *Pallas*, to ſtrew the teeth of the ſame Serpent upon the ground, which he performed, and then out of thoſe teeth (ſaith *Ovid*) aroſe a multitude of Armed men, who inſtantly fell to fight one with the other, in ſuch cruel and bloudy manner, that at the laſt there were but five of them all left alive, which five (by the will of *Pallas*) were preſerved to be the Fathers of the people of *Thebes*. And ſo *Apollonius* faigneth, that with the help of men bred of Serpents teeth, came *Jaſon* to obtain the Golden Fleece.

They faign alſo, that *Achelous* when he ſtrove with *Hercules* about *Deianira*, turned himſelf into divers ſhapes, and laſt of all into a Serpent, or as ſome ſay, into a River. So likewiſe *Cadmus* aforeſaid, being overcome with the ſight and ſenſe of his own miſeries, and the great calamities that befell to his Daughters and Nephews, forſook *Thebes*, and came into *Illyrium*, where it is ſaid, that he earneſtly deſired of the Gods to be turned into a Serpent, becauſe a Serpent was the firſt original of all his extremities. *Antipater* faigneth *Jupiter* to be turned into a Serpent; and *Meduſa* refuſing the love of *Neptune*, is alſo faigned by *Ovid* to be turned into a Serpent, when he writeth;

Hanc pelagi rector templo vitiaſſe Minervæ
Dicitur, averſa eſt & caſtos Ægide vultus
Nota Jovis texit: neve hoc impune fuiſſet,
Gorgoneum crinem turpes mutavit in Hydros.
Nunc quoque ut attonitos formidine terreat hoſtes,
Pectore in adverſo, quos fecit ſuſtinet angues.

In Engliſh thus;

It is reported how ſhe ſhould abus'd by Neptune be,
In Pallas Church*, from which foul fact Joves daughter turn'd her eye:*
And leſt it ſhould unpuniſht be, ſhe turnd her ſeemly hair
To loathſome Snakes, the which the more to put her foes in fear,
Before her breaſt continually ſhe in her hand doth bear.

Pierius writeth, that the myrtle rod was not lawful to be brought into the Temple of *Hecate*, and that a Vine branch was extended over the head of her ſign: and whereas it was not lawful to name Wine, they brought it into her Temple under the name of milk, and that therein continually lived harmleſs Serpents. The reaſon of all this was, becauſe that her own Father *Faunus* fell in love with her, whom ſhe reſiſted with all modeſty, although ſhe were beaten with a Myrtle rod, and made to drink Wine; but at laſt the beaſtly father was transformed into a Serpent, and then he oppreſſing her with the ſpires of his winding body, raviſhed her againſt her minde. Theſe and ſuch like ſtories and Fables are extant about the beginnings of Serpents; all which, the Reader may conſider, to ſtir up his minde to the earneſt and ardent meditation of that power that of ſtones can make men, of Rocks, water; of water, Wine; and of ſmall Rods great Serpents.

Pliny. *Ariſtotle.* *Ælianus.*

Then thus having expreſſed the Original of Serpents in their Creation, it followeth now to add the reſidue of this Chapter about their generation. It is a general rule that all Beaſts wanting feet and have long bodies, perform their work of carnal copulation by a mutual embracing one of the other, as Lampreys and Serpents: And it is certain, that two Serpents in this action ſeem to be one body and two heads, for they are ſo indiviſibly united and conjoyned together, and the frame of their body is altogether unapt for any other manner of copulation. When they are in this action they ſend forth a rank ſavour offenſive to the ſenſe of them that do perceive it: And although like unto many fiſhes, they want ſtones, yet have they two open paſſages wherein lyeth their generative ſeed, and which being filled provoketh them to their venereal luſt, the ſeed it ſelf being like a milky humor; and when the female is under the male, ſhe hath alſo her paſſages to receive the ſeed, as it were into the cells of her womb, and there it is framed into an Egge, which ſhe hideth in the earth an hundred in a cluſter, about the quantity of a Birds egg, or a great bead, ſuch as are uſed ſometime by women.

And this is general for all Serpents, except Vipers, who lay no Egges, but hatch in their wombs their young ones, as we ſhall ſhew at large in their particular hiſtory. The Serpent having laid her Egge ſitteth upon them to hatch them at ſeveral times, and in a year they are perfected into young ones. But concerning the ſuppoſed copulation of Serpents and Lampreys, I will not meddle in this place, reſerving that diſcourſe to the Hiſtory of Fiſhes, and now only it ſufficeth in this place to name it, as a feigned invention; although Saint *Ambroſe* and other ancient Writers have believed the ſame, yet *Athenæus*, and of late days *P. Jovius*, have learnedly and ſufficiently declared by unanſwerable arguments the clean contrary. The Serpents love their Egges moſt tenderly, and do every one of them know their own, even among the confuſed heaps of the multitude, and no leſs is their love to their young ones, whom for their ſafeguard, ſometime they receive into their mouths, and ſuffer them to run into their bellies: And thus much for the generation of Serpents.

Of the Names of Serpents, and their ſeveral parts of Anatomy.

BY Serpents we underſtand in this diſcourſe all venomous Beaſts, whether creeping without legs, as Adders and Snakes, or with legs, as Crocodiles and Lizards, or more neerly compacted bodies, as Toads, Spiders, and Bees, following herein the warant of the beſt ancient Latiniſts, as namely *Cornelius Celſus*, *Pliny* and *Apuleius* do call Lice Serpents, in that their relation of the death of *Pherecydes* the *Syrian*, who was the Præceptor of *Pythagoras*, of whom it is ſaid, *Serpentibus periiſſe*, to have periſhed by Serpents, when on the contrary it is manifeſted he was killed by Lice. *Ariſtotle* and *Galen* define a Serpent to be *animal ſanguineum pedibus orbatum & oviparum*, that is, a bloudy Beaſt without feet, yet laying egges; and ſo properly is a Serpent to be underſtood.

The *Hebrews* call a Serpent *Nachaſch*. *Darcon* and *Cheveia* by the *Chaldees* : ſo alſo *Thaninim* and *Schephiphon*, by the *Hebrews* ; as *Rabbi Solomon*, *Munſter* and *Pagnine* write. The *Grecians*, *Ophidi* and *Ophis*, although this word do alſo ſignifie a Viper in particular, even as the *Latine*, *Serpens*, or *Serpula* do, ſometime a Snake, and ſometime an Adder. The *Arabians*, *Haie*, and *Hadaie*, for all manner of Serpents. And *Teſtub*, or *Tenſtu*, or *Ageſtim* for Serpents of the Wood, likewiſe *Apartias* and *Atuſſi*. The *Germans*, *Ein ſchlang* ; which word ſeemeth to be derived from *Anguis*, by an uſual figure, and after the *German* faſhion, prepoſing *Sch*. The *French* call it *Un ſerpent* ; the *Italians*, *Serpe* & *Serpente* : and *Maſſarius* ſaith, that *Scorzo* and *Scorzone*, are general words for all manner of Serpents in *Italy*, which ſtrike with their teeth. The *Spaniards* call them *Sierpe* ; the *Grecians* call the young ones in the Dams belly, *Embrua* ; and the *Latines*, *Catuli*. And thus much for the names in general, which in holy Scripture is Engliſhed a Creeping thing.

Now it followeth, that I ſhould ſet down a particular deſcription of all the outward parts of Serpents ; and firſt of all, their colour is for the moſt part like the place of their habitation, or abode, I mean like the Earth, wherein they live ; and therefore I have ſeen ſome black, living in dung ; ſome yellow, living in ſandy rocks ; and ſome of other colour, as green, living in trees and fields ; but generally they have ſpots on their ſides and belly, like the ſcales of fiſh, which are both white, black, green, yellow, brown, and of other colours alſo, of which *Ovid* writeth :

——————*Longo caput extulit antro*
Cæruleus Serpens, horrendaque ſibila miſit.

That is,

The greeniſh Serpent extold her head from den ſo ſteep,
And fearful hiſſing did ſend forth from throat ſo deep.

The frame of their bodies do not much vary in any, except in the feet and length, ſo that with a reſervation of them, we may expreſs their univerſal Anatomy in one view ; for almoſt all of them are of the ſame proportion that is ſeen in Lizards, if the feet be excepted, and they made to have longer bodies. For they are incloſed in a kinde of ſhell or cruſty skin, having their upper parts on their back, and their neather parts on the belly like a Lizard, but they want ſtones, and have ſuch manner of places for copulation as fiſhes have, their place of conception being long and cloven All their bowels, by reaſon of the length and narrowneſs of their bodies, are alſo long and narrow, and hard to be diſcerned, becauſe of the diſſimilitude of their figures and ſhapes. Their artery is long, and their throat longer then that : the ground or root of the artery is near the mouth, ſo as a man would judge it to be under the tongue, ſo as it ſeemeth to hang out above the tongue, eſpecially when the tongue is contracted and drawn backward. The head long like a Fiſhes, and flat ; never much bigger then the body, except in monſtrous and great ſhaped Serpents, as the *Boas*. Yea, *Ariſtotle* maketh mention of a Serpent that had two heads ; and *Arnoldus*, of a Serpent in the *Pireney* Mountains, ſlain by a ſouldier, that had three heads, in whoſe belly were found two ſons of the ſaid ſouldier devoured by him, and the back-bone thereof was as great as a mans skull, or a Rams head. And ſuch an one we read in our *Engliſh* ſtory was found in *England*, in the year 1349. And the 23 year of *Edward* the third, there was a Serpent found in *Oxfordſhire*, near *Chippingnorton*, that had two heads and faces like women, one being ſhaped after the new attire of that time, and another after the manner of the old attire, and it had great wings, after the manner of a Bat.

Holinſhed.

• The tongue of a Serpent is peculiar, for beſides the length and narrowneſs thereof, it is alſo cloven at the tip, being divided as it were with very little or ſmall nails points. It is alſo thin, long, and black of colour, voluble ; neither is there any beaſt that moveth the tongue ſo ſpeedily : wherefore ſome have thought, that a Serpent hath three tongues, but in vain, as *Iſidorus* ſheweth, for they deceive by the nimbleneſs thereof. Their ventricle is large, like their maw, and like unto a Dogs, alſo thin, and uniform at the end. The heart is very ſmall, and cleaveth to the end of their artery, but yet it is long, and ſheweth like the reins of a Man : wherefore ſometimes it may be ſeen to bend the tip or lap thereof to the breaſt-ward. After this followeth the lights, but far ſeparate from it, being ſimple, full of fibres, and open holes like pipes, and very long : The liver long and ſimple ; the milt ſmall and round as in Lizards. The gall is for the moſt part as in fiſhes, but in Water-ſnakes it is joyned to the Liver : in other Serpents to the ſtomach or maw. All their teeth ſtand out of their mouth, and they have thirty ribs, even as there were among the *Hebrews* and *Egyptians* thirty days to every moneth.

Ariſtotle ſaith, that as their eyes be ſmall, ſo alſo they have the ſame good hap that befalleth young Swallows, for if by chance they ſcratch or rend out their eyes, then it is ſaid they have other grow up naturally in their places ; In like manner their tails being cut off, grow again And generally Serpents have their heart in the throat, the gall in the belly or ſtomach, and their ſtones near their tail : Their egges are long and ſoft, and in their teeth they cary poyſon of defence and and annoyance, for which cauſe they deſire above all other things to ſave their heads. Their ſight is but dull and dim, and they can hardly look at one ſide, or backward, becauſe their eyes are placed in their temples, and not in their fore-head, and therefore they hear better then they ſee. They have eye-lids, for generally no creatures have eye-lids, except thoſe which have hair in the other parts of their bodies ; four-footed beaſts in the upper cheek, fowls in the neather, or Lizards which

Ælianus.
Iſidorus.

have egs, or Serpents which have ſoft backs. They have alſo certain paſſages of breathing in their noſtrils, but yet they are not ſo plain that they can be termed noſtrils, but breathing places. Their ears are like to finny Fiſhes, namely ſmall paſſages, or hollow places in the backer parts of their head, by which they hear.

Their teeth are like Sawes, or the teeth of Combes joyned one within the other, that ſo they might not be worn out by grinding or grating together; and yet they bend inward, to the end that they may the better hold their meat in their mouths, being without all other externall help for that purpoſe; for even thoſe Serpents which have feet, yet can they not apply them to their chaps. In the upper chap they have two longer then all the reſidue, on either ſide one, bored thorough with a little hole like the ſting of a Scorpion, by which they utter their poyſon. Yet there be ſome good Authors that affirm, that this poyſon is nothing elſe but their gall, which is forced to the mouth by certain veins under the ridge or back-bone. Some again ſay, that they have but one long tooth, and that a crooked one, which turneth upward by often biting, which ſometime falleth off, and then groweth again, of which kinde thoſe are, which men carry up and down tame in their boſoms.

Although they be great raveners, yet is their throat but long and narrow, for help whereof, when they have gotten a booty, they erect themſelves upon their tails, and ſwallow down their meat the more eaſily. They cannot be ſaid properly to have any neck, yet ſomething they have, which in proportion anſwereth that part. They have tails like all other creatures, except Men and Apes, and ſome ſay that their poyſon is contained in their tails, and is from thence conveyed into little bladders in their mouths, therefore the Mountebanks or Juglers, break that bladder, that they may keep them without poyſon, but within the ſpace of twenty four hours they are recollected, and grow anew again.

Their bodies are covered over with a certain skin like a thin bark, and upon Serpents it ſupplyeth the place that ſcales and hair do upon Beaſts and fiſhes; for indeed, it is a pure skin, and in moſt things they are like to Fiſhes, except that they have lights, and Fiſhes have none: the reaſon is, they live on the earth, and the Fiſhes in the ſea, and therefore have fins and gills inſtead thereof. The little Serpents have all their bones like thorns, but the greater, which ſtand in need of greater ſtrength, have ſolid bones for their firmitude and better conſtitution. It is queſtionable whether they have any milt or no, and ſome ſay they have at the time of their laying of egges, and not otherwiſe. Their place of conception or ſecret, is large, and ſtandeth far out, beginning beneath, and ſo ariſing up to the back-bone double; that is, having one skin or encloſure on either ſide, with a double paſſage, wherein the egs are engendered, which are not laid one by one, but by heaps or cluſters together. They have no bladder to contain urine, like to all other Creatures which have feathers, ſcales or rinde-ſpeckled skins, except the Tortoiſes: the reaſon is, becauſe of the exiguity and ſmallneſſe of the aſſumed humour, and alſo all the humour acquired, is conſumed into a looſe and evaporate fleſh. And to conclude this Anatomy, I will adde a ſhort deſcription which *Gregorius Macer* a Phyſitian wrote to *Geſner*, 1558. by his own diſſection as followeth, ſaying.

As I lay at reſt in a green field, there came unto me a great Serpent hiſſing, and holding up her neck, which I ſuddainly with a piece of wood amazed at a ſtroak, and ſo ſlew without peril to my ſelf. Afterward, ſticking her faſt to a pale, I drew off her skin, which was very faſt and ſharp, and I found betwixt the skin and the fleſh, a certain little thin skin, deſcending all upon the body with the outward skin, and this was ſomewhat fat. And when I came unto the place of excrements I found it like a Fiſhes, but there iſſued forth certain filth, farre exceeding in ſtinking ſavour the excrements of a man. After I had thus pulled off the skin, it was eaſie for me to look into the inward parts, which I found to anſwer the inward Anatomy of fiſhes and Fowls in ſome parts, and in other things, there appeared a proper diſpoſition to the Serpent it ſelf. For the Artery *Trachea* was about three or four fingers long, turned about with little round circles, and ſo deſcended to the lights, unto which the heart and the bladder containing the gall, did adhere or cleave faſt. Then the liver was long, like the Fiſh *Lucius*, and ſo a white caul or fatneſſe covered both the liver and ſtomach, which was half a ſpan long: The guts began at the chaps, and ſo deſcended down to the place of excrements, as we ſee they do in Fiſhes.

Beneath the liver were the guts, upon either ſide deſcended a certain nervy or hard vein, unto which the egs did cleave: which were covered with ſuch little skins as Hens egs are before they be layd, but yet they were diſtinguiſhed in ſeat or place, becauſe of their multitude; for upon either ſide I found two and thirty egs. The tongue of the Serpent was cloven, and very ſharp, but there appeared not any poyſon therein. And ſo it is evident, that in the vein *Trachea*, heart and lights, it agreeth with Birds; in the liver, guts and caul, it reſembleth a Fiſh, but in the place of the gall, and diſpoſition of the egs, it differeth from both. And thus farre *Macer*, with whoſe words I will conclude this Chapter of Serpents Anatomy.

Of the quantity of Serpents, and their abode, food, and other accidents.

SO great is the quantity of Serpents, and their long during age increaſeth them to ſo great a ſtature, that I am almoſt afraid to relate the ſame, leſt ſome ſuſpicious and envious minded perſons, ſhould utterly condemn it for fabulous; but yet when I conſider not only the plentiful teſtimonies of worthy and undoubted Antiquaries, and alſo the evidence of all ages, (not excepting this wherein we live) wherein are and have been ſhewed publiquely many Serpents, and Serpents ſkins, I receive warrant ſufficient to expreſs what they have obſerved, and aſſured anſwer for all future Objections, of ignorant, incredulous, and unexperienced Aſſes. Wherefore as the life of Serpents is long, ſo is the time of their growth; and as their kindes be many, (as we ſhall manifeſt in the ſucceeding diſcourſe) ſo in their multitude, ſome grow much greater and bigger then other.

Gellius writeth, that when the *Romans* were in the *Carthaginian* war, and *Attilius Regulus* the Conſul had pitched his Tents near unto the River *Bragrada*, there was a Serpent of monſtrous quantity, which had been lodged within the compaſs of the Tents, and therefore did cauſe to the whole Army exceeding great calamity, untill by caſting of ſtones with ſlings, and many other deviſes, they oppreſſed and ſlew that Serpent, and afterward fleyed off the skin and ſent it to *Rome*, which was in length one hundred and twenty feet. And although this ſeem to a beaſt of unmatchable ſtature, yet *Poſſidonius* a Chriſtian Writer, relateth a ſtory of another which was much greater, for he writeth, that he ſaw a Serpent dead, of the length of an acre of Land, and all the reſidue both of head and body, were anſwerable in proportion, for the bulk of his body was ſo great, and lay ſo high, that two Horſemen could not ſee one the other being at his two ſides, and the wideneſs of his mouth was ſo great, that he could receive at one time within the compaſs thereof, a Horſe and a man on his back both together: The ſcales of his coat or skin, being every one like a large buckler or target. So that now there is no ſuch cauſe to wonder at the Serpent which is ſaid to be killed by S. *George*, which was as is reported ſo great, that eight Oxen were but ſtrength enough to draw him out of the City *Silena*.

Mela.
Pliny.
Megaſth.
Solinus.
Textor.
Strabo.
Ælianus.

There is a River called *Rhyndacus* near the Coaſts of *Bythinia*, wherein are Snakes of exceeding monſtrous quantity, for when through heat they are forced to take the water, for their ſafegard againſt the Sun, and birds come flying over the pool, ſuddenly they raiſe their heads and upper parts out thereof, and ſwallow them up. The Serpents of *Megaläuna*, are ſaid by *Pauſanias* to be thirty cubits long, and all their other parts anſwerable. But the greateſt in the world are found in *India*, for there they grow to ſuch a quantity, that they ſwallow up whole Bulls and great Stags. Wherefore I do not marvel that *Porus* the King of *India*, ſent to *Auguſtus Cæſar* very huge Vipers, a Serpent of ten cubits long, a Tortoiſe of three cubits, and a Partridge greater then a Vulture. For *Alexander* in his Navigation upon the Red-ſea, ſaith; that he ſaw Serpents forty cubits long, and all their other parts and members of the ſame quantity.

Alſtus.
Gellius.
Scaliger.
Cardan.

Among the *Scyritæ*, the Serpents come by great ſwarms upon their flocks of Sheep and cattel, and ſome they eat up all, others they kill and ſuck out the bloud, and ſome part they carry away. But if ever there were any thing beyond credit, it is the relation of *Volateran*, in his twelfth Book of the *New-found Lands*, wherein he writeth, that theſe are Serpents of a mile long, which at one certain time of the year come abroad out of their holes and dens of habitation, and deſtroy both the Heards and Heard-men if they find them. Much more favourable are the Serpents of a *Spaniſh* Iſland, who do no harm to any living thing, although they have huge bodies, and great ſtrength to accompliſh their deſires.

In the Kingdom of *Senega*, their Serpents are ſo great that they devour whole Beaſts, as Goats, and ſuch like, without breaking any one of their bones. In *Calechute*, they are as great as their greateſt Swine, and not much unlike them, except in their head, which doth far exceed a Swines. And becauſe the King of that Countrey hath made a Law, that no man kill a Serpent under pain of death, they are as great in number as they are in quantity: for ſo great is his error, that he deemeth it as lawful to kill a Man as a Serpent.

P. Fagius.
Venetus.
Hatthonus.
Pierius.

All kindes of Serpents are referred to their place of habitation, which is either the earth, or the waters of the earth; and the Serpents of the earth are more in number then the Serpents of the water, except the Serpents of the Sea: And yet it is thought by the moſt learned *Rabbins*, that the Serpents of the Sea, are fiſhes in the likeneſs of Dragons. Now the places of Serpents abode being thus generally capitulated, we muſt enter into a farther narration of their habitations, and regions of their native breeding. In the firſt place, *India* nouriſheth many and divers ſorts of Serpents, eſpecially in the Kingdom of *Morſilium*, and *Alexander* the Emperor, found among other Beaſts, ſundry kindes of Serpents in a long Deſert, which is on the North-ſide of *India*. But all the Nations of the World may give place to *Æthiopia* for multitude and variety, for there they gather together on heaps, and lie in compaſs like round hills, viſibly apparent to the eyes of them that behold them a far off. The like is ſaid of all *Africa*, for in *Numidia*, every year there are many men, women and children deſtroyed by Serpents. The Iſland *Pharus*, is alſo (by the teſtimony of the *Egyptians*) filled with Serpents: The Coaſts of *Elymais* are annoyed by Serpents; and the *Caſpians* are ſo annoyed by Serpents which come ſwimming in the floods, that men cannot ſail that ways but in the

Winter time. For from the beginning of the Spring, or æquinoctial, they ſeem (for their number) to approach ravening, like Troops and Armies. There are certain Iſlands called *Ophiuſæ inſulæ*, named after *Ophis* a Serpent, for the multitude bred therein: And there are Serpents in *Candy*, *Epheſus*, and all hot Countries; for this priviledge hath GOD in nature given to the colder Countreys, that they are leſs annoyed with Serpents, and their Serpents alſo leſs nocent and hurtful: and therefore the Serpents of *Europe* are fewer in number, leſſer in quantity, and more reſiſtable for their weakneſs and ſtrength.

Solinus.
Ælianus.
Cor. Celſus.
Pierius.

There were a people in *Campania* called *Oſci*, becauſe of the multitude of Serpents bred among them: Likewiſe there are great ſtore in *Lumbardy* and *Ferrara*. And whereas we have ſaid, that the moſt nocent and harmful Serpents are bred in the hotteſt Regions, where they engender more ſpeedily, and alſo grow into greater proportions, yet is it not to be underſtood of any ſpecial property appertaining to them alone, for I read in *Olaus Magnus* his deſcription of the Northern Regions, of Serpents of as great quantity as in any other place of the world; but yet their poyſon is not half ſo venomous and hurtful, as in the hotter Regions, eſpecially the *African* Serpents. In *Batina* near *Livonia*, there are great ſtore of great Serpents alſo, ſo that the Heard-men are at continual war and contention with them for defence of their flock: Likewiſe in the Mountains of *Helvetia* and *Avergne*, whereof there are many wonders reported in the World, which I will not ſtand upon to relate in this place. We read alſo, that ſome places have been diſinhabited, and diſpeopled by Serpents, ſuch were the people of *Scythia*, called *Neuri*, who before the war of *Darius*, were conſtrained to forſake their ſoil, becauſe they were annoyed, not only with home-bred Serpents, but alſo with many other which came from other parts: and ſo the Countrey remaineth deſolate to this preſent day, the ancient Inhabitants being all removed to dwell among the *Buditani*. The City *Amyclæ* in *Italy*, (as *M. Varro* writeth) was deſtroyed alſo by Serpents. And there be certain places of the world, which have received their denomination from Serpents, beſides the *Ophiuſæ* near *Crete*.

Scaliger.
Olaus Mag.

The Iſland *Tenos*, was called *Hydruſſa* and *Ophiuſſa*, ſo were *Cremiuſcos*, *Æpolium*, and the Mountains *Macrocremnii*, *Rhodus*, and the long Iſlands *Ophiades* in the *Arabian* coaſt, which after it had remained a long time deſert, was purged and cleared from Serpents by the Kings of *Egypt*. *Nicanetus* alſo calleth *Cyprus*, *Ophiodia*. And in *Pauſanias*, we read of a place named *Opheos Kephale*, the Serpents head. The like might be ſaid of Rivers, as of *Orontes*, called alſo *Ophites*, and *Ophis* in *Pontus*, which divideth aſunder *Colchis*, and the Countrey *Thiamica*. *Ebuſus* nouriſheth no Serpents, and the Earth thereof hath in it a ſecret vertue to drive away Serpents, wherefore it is much deſired of all men to carry about them, for that it hath been often proved, that never any venomous beaſt durſt adventure upon any man poſſeſſed thereof. The like is ſaid of *Ireland*, as our own Chronicles do plentifully declare, and therefore I will ſpare to enter into any narration thereof.

Eupolides.
Diod. Sicul.
Arrianus.
Suetonius.
Pliny.

To come therefore to the more particular abode of Serpents, eſpecially of ſuch as are known to us, we muſt leave off the talk and nomination of Kingdoms, and deſcend to dens, holes, caves, dunghils, Sheep-coats, valleys, rocks hollow-walls and trees, woods, green paſtures, hedges, and ſuch like places, wherein they make their moſt abode: And now and then in theſe Northern parts of the world (and yet ſeldom) they dive down into the bottom or roots of trees, eſpecially ſuch as are green all the Winter time: For they finde in them a greater heat or warmth, then in other, whoſe leaves fall off and decay in the cold weather, except in the roots of Birch. And by reaſon of their multitude gathered together at the root of this tree, it falleth out that their breath heateth the ſame, and ſo preſerveth the leaves from falling off: Wherefore in ancient time, the ignorant multitude, ſeeing a Birch tree with green leaves in the Winter, did call it our *Ladies Tree*, or a holy tree, attributing that greenneſs to miracle, not knowing the former reaſon, or ſecret in Nature. *Solinus* reporteth of ſuch a like Wood in a part of *Africa*, where in all the Winter time, the leaves of all the trees abide green, the cauſe is as before recited, for that the Serpents living at the roots of the trees in the earth, do heat them with their breath. Neither ought any man to wonder that they ſhould ſo friendly live together, eſpecially in the Winter and cold time, ſeeing that by experience in *England*, we know that for warmth they will creep into bed-ſtraw, and about the legs of men in their ſleep; as may appear by this ſucceeding diſcourſe, of a true hiſtory done in *England*, in the houſe of a worſhipful Gentleman, upon a ſervant of his, whom I could name if it were needful. He had a ſervant that grew very lame and feeble in his legs, and thinking that he could never be warm in his bed, did multiply his clothes, and covered himſelf more and more, but all in vain, till at length he was not able to go about, neither could any skill of Phyſitian or Chirurgeon finde out the cauſe.

It hapned on a day as his Maſter leaned at his Parlour window, he ſaw a great Snake to ſlide along the houſe ſide, and to creep into the chamber of this lame man, then lying in his bed (as I remember,) for he lay in a low chamber, directly againſt the Parlour window aforeſaid. The Gentleman deſirous to ſee the iſſue, and what the Snake would do in the chamber, followed, and looked into the chamber by the window; where he eſpyed the Snake to ſlide up into the bed-ſtraw, by ſome way open in the bottom of the bed, which was of old boards. Straightway his heart riſing thereat, he called two or three of his ſervants, and told them what he had ſeen, bidding them go take their Rapiers and kill the ſaid Snake. The ſerving men came firſt and removed the lame man (as I remember) and then the one of them turned up the bed, and the other two the ſtraw, their maſter ſtanding without at the hole, whereinto the ſaid Snake had entered into the chamber. The bed was no ſooner turned up, and the Rapier thruſt into the ſtraw, but there iſſued forth five or ſix great Snakes that were lodged therein: Then the ſerving-men beſtirring themſelves, ſoon diſpatched them, and caſt them out of doors dead. Afterward, the lame Mans legs recovered, and became as ſtrong as ever they were: whereby did evidently appear, the coldneſs of theſe Snakes or Serpents, which came cloſe to his legs every night, did ſo benum them as he could not go. And thus for heat they pierce into the holes of chimneys, yea into the tops of hills and houſes, much more into the bottoms and roots of trees.

When they perceive that Winter approacheth, they finde out their reſting places, wherein they lie half dead four months together, until the Spring-ſun again communicating her heat to all Creatures reviveth, and (as it were) raiſeth them up from death to life During which time of cold Winter, Epiſt 5. as *Seneca* writeth, *Tuto tractari peſtifera Serpens poteſt, non deſunt tunc illi venena, ſed torpent*: They may be ſafely handled, without fear of harm, not becauſe they want poyſon at that time, but becauſe they are drouzy, and deadly aſtoniſhed. But there is a queſtion, whether when they be in this ſecreſie or drouzineſs, they awake not to eat, or elſe their ſleep be unto them inſtead of food. *Olaus Magnus* affirmeth of the Northern Serpents, that they eat not at all, but are nouriſhed with ſleep. *Cardan* ſaith, that they take ſome little food, as appeareth by thoſe which are carryed up and down in boxes to be ſeen, and are fed with bran or cheaſil. But this may be anſwered, that Serpents in boxes, are not ſo cold as thoſe in Woods and Deſerts: and therefore ſeeing cold keepeth them from eating, the external heat of the box-houſe, or humane body which beareth them about, may be a cauſe, that incloſed Serpents feed in Winter as well as in Summer, and yet the Serpents which run wilde in the fields eat nothing at all, during the time of their *Chias* or *Ebiaus*, that is, their lying hid.

Grevinus that learned man proponeth this queſtion, *Si Serpentes calidi ſunt, qui fit ut integros tres aut quatuor menſes, id eſt toto illo tempore quo deliteſcunt, abſque cibo vivunt?* If (ſaith he) Serpents be hot, how cometh it to paſs that they can live three or four moneths without all food, that is, all the time of their lying ſecret? He maketh (in my opinion) a ſufficient anſwer to this queſtion, which for me ſhall conclude the cauſe, ſaying; Doth it not fall out with Serpents as it doth with ſome women, who being full of humor, and thick phlegmatick matter, have but a little and weak natural heat, (yet proportionable to the ſaid humor) do live a great time by reaſon thereof without food or nouriſhment? And for this cauſe, all the hoaſts of Philoſophers do define, that Serpents do alſo abſtain from eating a long ſeaſon. For Nature hath clothed them with a more ſolid skin, and lined them with a more thick and ſubſtantial fleſh, to the intent that their natural heat ſhould not eaſily vaniſh away and decay in their bodies, but remain therein permanent, for the feeding and preſerving of life. When they ſleep, they ſeem to ſleep with open eyes, which is elegantly deſcribed by *Philes* in theſe *Greek* verſes:

Opõs kathéude kaì dokeĩ palin blepein
Ophis te kai ptox kai thumou pleres león
Epipetatai gar he chlamys ton ommaton
Allou tinos Chitonos hapaloterou.
Phrorountos autois os dioptras, task-ótas.

Which may be Engliſhed thus;

How can the Hare, the Serpent, and the Lion bold,
Both ſleep, and ſee together at one time?
Within their eye-lids, a ſoft skin their ſight doth fold,
Shilding their apples, as glaſs doth weakened eyne.

The food of Serpents that is permitted them by God, is the duſt of the earth, as may appear by that firſt and juſt ſentence, which GOD himſelf gave upon them, for ſeducing our firſt Parents, *Adam* and *Eve*, Gen. 3. 14. *Becauſe thou haſt done this thing, thou art accurſed above all the Beaſts of the field, for thou ſhalt go upon thy belly, and eat duſt all the days of thy life.* And again, Eſay 65. 25. *Duſt ſhall be meat to the Serpent.* And leſt that we ſhould think that this curſe hath not taken hold upon the Serpent, we may finde the expreſs practiſe hereof, Mich. 7. 17. where it is ſaid of Gods enemies, that, *They ſhall lick the duſt like the Serpent.* Yet *Ariſtotle* affirmeth truly, that Serpents are *Omnivori*, that is, devourers of fleſh, fiſh, herbs, or any other things; howbeit, herein they paſs their kinde, or elſe the curſe of God reacheth not to any other kindes then to that alone which deceived our firſt Parents.

We have ſhewed already, how they eat and devour men, women and children, Oxen, Sheep, and Goats, but whatſoever they eat, they retain nothing but the moiſture of it, and the reſidue they eject whole and undigeſted. Whatſoever is offered them, that they take, either a bird, or a ſmall chicken, or an egge, having it, they take hold but of one end, as of the head of a chick, or ſmall end of an egge, and ſo ſet it directly before them; then do they gather themſelves together in as ſhort a compaſs as may be, that ſo their bodies which ſeem long and ſmall, being extended, may appear great and wide, reduced into a ſhort and compacted frame. And ſurely hereby they open and make wider their paſſage and ſwallow. for then they ſuddenly goble in the beaſt or meat before them, without any great ado; and having kept it in their body till it be dryed from all moiſture, they caſt it out again as they ſwallowed it up, at another ordinary place. But for birds and chickens, they ſtrive with them till they have gotten off their feathers, or elſe, if they ſwallow them whole, they eject the feathers as they do egge-ſhells.

The Serpents of the North do in the Summer time eat the fleſh of birds, and herbs, and after the eating of them, they taſte of a little water, or milk if they can attain it, or elſe Wine. For this cauſe they will ſuck the udders of Kine, or Goats, or Sheep, as hath been ſeen in *England*. Yet is their appetite to drink but ſmall, as is in all other creatures, whoſe livers are fungous, and ſoft like ſpunges; and ſo are all beaſts and creatures which lay egges. Above all kindes of drink they love Wine, and thereof they be drunk, wherefore in *Italy* they ſet pottles of Wine to entrap Vipers: for if once they ſmell the Wine, they enter the veſſel gladly and ſpeedily, and the Wine or Milk whereof they drink, is poyſoned by them. But in thoſe places of *Africk* where it never raineth, they eat a kinde of black moiſt worm, which hath many legs, as is ſaid by *Theophraſtus*. And to conclude, their meat and drink is ſo ſmall, that it is received for truth, *Nullum venenatum perit fame vel ſiti*, that no venomous beaſt periſheth by hunger or thirſt.

The voyce of Serpents is called *Sibilus*, a hiſſing, and their voyce differeth from all other Beaſts hiſſing, in the length thereof: for the hiſſing of a Tortoiſe is ſhorter and more abrupt. Of this hiſſing voyce ſpeaketh *Lucan*, ſaying;

Quod ſtrident ululantque feræ, quod ſibilat anguis.

In Engliſh thus;

Gnaſhing, and howling is the voyce of wilde Beaſts;
Long hiſſing in Snakes and Serpents doth reſt.

Among other things notable in a Serpent, this is one, becauſe it caſteth off his old age every year, whereof the *Grecians* tell this fabulous reaſon. Once Man-kinde ſtrove earneſtly with the Gods by ſupplication for a perpetual youth, that they might never wax old: and obtaining their deſire, they laid the ſame to be carryed upon an Aſs. The ſilly Beaſt waxing ſore athirſt in his travail, at laſt came unto a water, and thereof endevoured earneſtly to drink; but the keeper of the ſame water being a Serpent, denyed leave to the Aſs to drink thereof, except he would grant him his carriage, which was *Perpetual youth*: The poor Aſs ready to periſh for thirſt, eaſily condeſcended thereunto. Whereupon the Serpent changeth her age for youth, and Men their youth for old age; and the Aſs for his puniſhment, is more tormented with thirſt then any other Beaſt.

But to leave fables, and to come more neer the mark, the *Latines* call the caſting off their skin, *Anguina ſenectus*, *ſpolium Serpentis*, & *vernatio*; the *Grecians*, *Opheos derma*, *Suphar*, *Leberis* & *Getas*; the *Arabians*, *Geluc* & *Genlut*, & *Fulcalbaileb*; the *Italians*, *Spoglia delle Serpi*: and the *Spaniards*, *Pelle de la culebra*. About this Snakes skin there is great difference among Authors, ſome affirming it to be the very skin. Other, that it is nothing but a kinde of hard Leproſie, grown upon them during the Winter time while they lie hid. Some again ſay, that they caſt it twice a year, firſt in the Spring, and then ſecondly in the Autumn. But by conference of all together it appeareth, that while the Serpents lie hid, by reaſon of their drought now in the beginning of the Spring when they come firſt abroad, they rub off this skin by ſliding betwixt two ſtones, or underneath ſome root of a tree, or elſe betwixt ſome boughs or ſmall trees, beginning at the head, and ſo continuing to the tail. And within four and twenty hours, that which was raw and bald, beginneth to have another skin upon it; and ſo as a young childe or beaſt cometh out of the *Secondine* doth a Serpent come out of the skin.

Ælianus.
Grevinus.
Olaus Mag.
Textor.
Pliny.

As concerning their eye-ſight, they naturally do take the juyce of Fennel, which they eat, and by that recover their ſeeing again: and if it happen that they cannot finde ſufficient, they rub their dim eyes thereupon. And if it happen that any of his ſcales be bruiſed, or fall ſenſeleſs, then do they rub themſelves upon the thorns of Juniper. And whereas it is thought that they caſt their skins again in Autumn, that is to be attributed either to Vipers alone, which caſt their skins twice a year, or elſe to thoſe which are long before they caſt, and ſo it falleth off in Harveſt or Autumn the firſt time, which by reaſon of the unſeaſonableneſs, is thought to be a ſecond coat. And this have I my ſelf often found here in *England* in the Summer time. The caſting off this skin is thus elegantly deſcribed by *Tibullus*:

Mercurialis.
Pliny.

Crudeles Divi! Serpens novus exuit annos,
Forma non ullam fata dedere moram.
Anguibus exuitur tenui cum pelle vetuſtas:
Cur nos anguſta conditione ſumus?

Which may thus be Engliſhed;

O cruel Gods, ſith Serpents change their yearly age,
And Fates delay not to refine their form,
Sith Snakes with tender ſkin excuſ'd their years enlarge,
Why unto worſer hap is Mankinde born?

Of the inward diſpoſition of Serpents, and of their concord and diſcord with other Creatures.

IT is ever to our woe to be remembred, that which the Lord himſelf hath left recorded in Geneſis, that, *The Serpent was more ſubtile then all the beaſts which God had made.* By which is expreſſed the natural diſpoſition of this beaſt above other to ſubtilty and policy; For I cannot approve the ſaying of them, who think that the Devil at the beginning might as well have uſed the tongue of an Aſs or a Dog to have deceived Man, as well as a Serpents; but ſurely that old Serpent knew very well, (better then all they which ſpeak the contrary) that he could not have ſo fit a ſubject in all the World, as the ſhape, wit, and cunning of a Serpent. And that this came not into the Serpent at that time when the Devil framed his tongue to ſpeak, may appear by the precept of our Saviour Chriſt, where he ſaith; *Be wiſe as Serpents, be innocent as Doves.* For if there had not been naturally, ſome extraordinary faculty of underſtanding in this beaſt, as there is of meekneſs in a Dove, his wiſdome would never have ſent us to a Serpent poſſeſt with a Devil, but rather to ſome other ingenious Beaſt, whereof there were great ſtore in the World. And therefore I conclude, that ſubtilty and prudence came not to the Serpent as ſpeaking into *Balaams* Aſs, but rather by nature or creation.

And yet concerning this laſt ſentence of our moſt bleſſed Saviour, I cannot but expreſs the words of *Tzetzes*, who writeth thus upon it, *Servate capita veſtra, quemadmodum Serpens qui inſidiis petitus vapulanſque ad mortem, omnimodò caput ſuum abſcondit, ſic vos à tyrannis & impiis cruciati, caput ſervate mihi, fidem veſtram, & ne Deum negetis uſque ad ipſam mortem.* That is, it is as much as if our Saviour Chriſt ſhould ſay; Even as when a Serpent is ſet upon and ſtroken, by all the means ſhe can ſhe hideth her head, and expoſeth all her other parts to blows, reſerving that ſound; ſo you, when you are perſecuted by Tyrants, preſerve your head, that is, your faith, and deny not your God to death. And this thing is affirmed by all Writers, both divine and humane, which have ever touched this point, that above all the parts of the body the Serpent preſerveth his. For *Pliny* ſaith, that if his body be cut off but two fingers length from his head, he will go away as if he had no harm at all, and live longer.

Paulus Fagius writing upon Geneſis, ſaith; It is the opinion of ſome *Hebrews*, that the Serpent at the beginning did go upright, and was indued with all the affections of men: but this Jewiſh fable is not worthy to be confuted, becauſe humane affection cannot proceed but from a reaſonable ſoul, which to aſcribe to the Serpent, were blaſphemous and abſurd. Beſides, that then the ſoul might die, and that God had created ſuch a ſoul, otherwiſe then by breathing into the body the breath of life.

Serpents have many Epithets given unto them, as illiberal, perfidious, treacherous, venomous, poyſonful, ſtinging, implacable, furious, ſavage, mercileſs, devourer, and ſuch like: And indeed the holy Writers, by a Serpent do underſtand implacable fury: For they are *immitiſſimum animalium genus*, a moſt ungentle and barbarous kinde of all creatures, as may appear by the rage of a little Snake, one of the leaſt of Serpents kinde: for when he perceiveth that he is hurt or wounded, he never ceaſeth caſting out his poyſon, until he have done harm, or die for madneſs.

Two things I finde to be notable in Serpents, the firſt is proper to their kinde, the ſecond is common to them with Swine, Rats, and Mice. Firſt, they are above meaſure kinde, not only to their young ones, but alſo to their Egges. For *Funckius* confidently ſweareth, that at *Loſtorſium* he ſaw a Serpents Egge taken and caſt into a hot furnace, and when it began to fry in the ſame, whether by natural inſtinct, or by ſmell thereof, the old Serpent came, and would have run into the fire to fetch it out, but that he and other ſtrangers hindered her by killing her. And ſo likewiſe, if in a Wood one of them be ſet on fire, all the Serpents that are within the ſavour thereof, or within the hearing of the hiſſing, will inſtantly gather unto it, even as beaſts when they hear one another roar. And ſo great is their love one toward another, (as *Pliny* and *Textor* write) that it was a vulgar ſaying, *Serpentium morſus non petit Serpentes*, one Serpent will not bite another. And *Juvenal* writeth;

Sed jam Serpentum major concordia———
Scilicet, quam hominum inter ſe.

That is to ſay;

Better do Serpents with Serpents accord,
Then Man with Man, who ſhould be their Lord.

I cannot conceal a moſt memorable Hiſtory as ever was any in the World; of a fight betwixt the Serpents of the Land and the Water. This Hiſtory is taken out of a Book of *Schiltbergerus*, a *Bavarian*, who knew the ſame (as he writeth) while he was a captive in *Turky*, his words are theſe. In the Kingdom called *Genycke* there is a City called *Sampſon*, about which while I was priſoner with *Baiazeta* King of *Turkes*, there pitched or arrived an innumerable company of Land and Water Serpents, compaſſing the ſaid City a mile about. The Land-ſerpents came out of the woods of *Trienick*, which are great and many, and the water Serpents came out of the bordering Sea.

Theſe were nine days together aſſembling in that place, and for fear of them there was not any that durſt go out of the City, although it was not obſerved that they hurt any man, or living creature thereabouts. Wherefore the Prince alſo commanded, that no man ſhould trouble them, or do them any harm, wiſely judging, that ſuch an accident came not but by Divine miracle, and that alſo to ſignifie ſome notable event. Upon the tenth day theſe two valiant Troops joyned battel early in the morning before the Sun-riſing, ſo continuing in fight until the Sun-ſet, at which time the Prince with ſome Horſe-men, went out of the City to ſee the battel, and it appeared to him and his aſſociates, that the Water Serpents gave place to the Land Serpents. So the Prince and his company returned into the City again, and the next day went forth again, but found not a Serpent alive, for there were ſlain above eight thouſand: all which he cauſed preſently to be covered with earth in ditches, and afterward declared the whole matter to *Baiazeta* by Letters after he had gotten that City, whereat the great *Turk* rejoyced, for he thereby interpreted happineſs to himſelf.

But I have been too long in this firſt and proper affection of Serpents, namely, their mutual concord; and this example of the Land and Water Serpents, doth not break the common promiſed rule, becauſe it is to be underſtood of Serpents that live in the ſame element. The ſecond property is to preſage Peſtilence, rottenneſs of air, famine, floods, and ruine of thoſe places wherein they are commorant, and have their abiding: ſo do they know to chuſe a good air, and fore-know fertility of fruits, earth-quakes and great tempeſts. When *Helice* was deſtroyed, five days before, the Serpents, Snakes, Rats, Mice, and Weaſels, departed all out thereof, being wiſer then Men, that miſdeeming no harm, although they ſaw and wondered at theſe removals, yet ſtood it out to their own utter ruine, overthrow and deſtruction.

Ælianus.

Of the friendſhip and enmity which Serpents keep with other Creatures.

Ever ſince the Devil entered into the Serpent, it became hateful to all, or the moſt part of the *beaſts of* the field, ſo that it may as truly be verified of the Serpent as it was of *Eſau*, that the *hands of all* Men and Beaſts are againſt them, (except very few) for they are ſtrangers to all, and finde very few or no friends. Yet it is reported, that the Serpent and the Fox will live peaceably together in one cave or lodging. There is a ſtory, not unpleaſant, of a Man that found a Serpent encloſed betwixt two ſtones, and at the intreaty of the Serpent, he looſed him out of danger, and did him no harm. The Serpent being releaſed and free from death, in ſtead of other recompence for ſo good a turn, told the Man that he had been therein a long time incloſed, and was very hungry, and therefore was forced (againſt his will) to make the beſt of his fortune, and therefore muſt needs eat the Man, and bad him prepare himſelf for death. The Man aſtoniſhed at this motion, replyed to the Serpent, that he hoped he would not deal ſo with him, having delivered him from death, now to put his deliverer to death: and ſaid moreover, that he would not be the Judge of his own caſe, but refer the ſame to the next they found: and the Serpent alſo yeelded to that judgement, being aſſured that no creature would quit the Man, leſt he ſhould caſt his own life into peril. Forth then they went and met with an Aſs, to whom the Man told the difference betwixt him and the Serpent, how kindely he ſaved the Serpents life, and how unkindely he again would take away his life. And then the Serpent bade the Aſs conſider what judgement he gave, and for whom he ſpake. The Aſs adjudged it lawful for the Serpent to kill the Man. Lo now, ſaid the Serpent, make you ready, for the matter is judged againſt you, and withall, began to make force at him with mouth and ſting. But the Man ſaid, that he would not take this Aſſes deree for reaſonable, and therefore prayed the Serpent to tarry yet a little longer, and try once more the next Beaſt they met withall; and the Serpent thinking himſelf ſure of the booty, yeelded thereunto. Then forth they paſſed again, and ſhortly after met with a Fox, to whom the Man related his caſe, and the benefit he had done to the Serpent: The Serpent again confeſſed he releaſed him, but withall, denyed his caſe to be as the Man had ſaid, ſo deſperate, but only he entrapped himſelf the better to compaſs a booty. The Fox having heard them both, (deſirous to end the matter for the Mans benefit) would needs go with them both to the place where the Serpent was incloſed, and ſo all parties conſented. And when the Fox came thither, he bade the Serpent go into the ſame place again, that ſo he might the better judge of the whole matter. The Serpent went in again betwixt the ſtones, and was ſo incloſed as he was before, for he could not ſtir neither backward nor forward. Then the Fox asked the Man if this were the Serpents caſe, from which he had delivered him? The Man anſwered yea, in all points. Then he bade the Serpent come out again, as he ſaid he could, without the help of the Man. But the Serpent called the Man to help him again. Nay, ſaid the Fox, I found you two at variance, becauſe of your diſcharge from this place, and ſeeing now you are as you were before, and the Man as he was before your enlargement, my ſentence is, that when you come forth of that place you are in, then ſhall you eat the Man: and if he will let you forth again, I will never pity him. By this fable is ſhewed, that Foxes love not Serpents ſo well as they love Men, and yet they never love Men, but they are afraid, ſuſpicious, and willing to forſake their familiarity.

Some ſay there is a kinde of love betwixt Serpents and Cats, whereof I finde this ſtory in *Ponzettus*. There were certain Monks, who all of them fell ſick upon a ſudden, and the Phyſitians could not tell how or whence this ſickneſs came, except from ſome ſecret poyſon. At laſt, one of the ſervants of the Abbey, ſaw the Cat which was daily fed at the Monks table, to play with a Serpent; and thereby it was conjectured, that the Serpent having in his ſport loſt or left ſome poyſon upon the Cats skin, the Monks by ſtroking of the Cat were infected therewith. And the cauſe why the Cat was not harmed thereby, was for that ſhe received the poyſon from the ſport, and not from the anger of the Serpent.

Ponzettus.

And this thing ſurely is not ſo marvellous, ſeeing that little Mice and Rats do alſo play with Serpents, and herein Politicians play the Serpents, who hold correſpondence and peace both with the Cat and the Mouſe: that is, with two ſworn and natural enemies together. The like peace and league they are alſo ſaid to keep with Eeles, as may more plainly appear by this following Hiſtory, of a certain Monk called *Rodolphus a Will Monachus Capellenſis*.

There was (as this Monk affirmeth) one of his fellow Monks, which did often tell him, that being a little boy, and uſing to ſport himſelf by the water ſide, he hapned to catch an Eele, which he attempted (for his own pleaſure) to carry to another water, and by the way as he went, he paſſed through a Wood, at which time when he was within the Wood, the Eele began to hiſs and cry mainly, at the hearing whereof, there gathered together very many Serpents round about him, inſomuch that he was afraid, and ſet down his basket faſt pinned and ran away; afterward he came again and ſought for his basket, but he found not the Eele therein, wherefore it was ſuppoſed, that the Serpents delivered the ſame Eele out of the basket, by ſome ſleight of nature: the only doubt is, whether Eeles do hiſs or not, ſeeing they are fiſhes, and *Omnes piſces muti*, all fiſhes are mute or dumb. But for anſwer to this objection, it is moſt certain that Eeles have a voyce, as all they know which uſe fiſhing in the night; for I my ſelf, have not only heard ſuch a voyce in the night time in Rivers, and other waters where Eeles abounded, but have had it confirmed by divers other, of greater practiſe and experience in fiſhing. The reaſon whereof, may be their manner of generation; for they engender not by ſpawn as other fiſhes, but of the ſlime of the earth or water, and differ not from Serpents in their external form, except in their colour, and therefore may be ſaid to partake with Fiſhes and Serpents in both their natures: that is, having a voyce like a Serpent, and a ſubſtance like a Fiſh. Such is their confederacy with living Creatures, and with no more that I ever read or heard of.

But moreover, it is ſaid that they love ſome Plants or Herbs above meaſure, as the Fennel and Ivy; and for this later, both *Pliny* and *Textor* do not without great cauſe wonder, that ever there was any honour aſcribed or given to the Ivy, ſeeing that Serpents (the moſt unreconcileable enemies of man-kinde) delight ſo much therein. But herein the Devil blinded their reaſon, as he did the modeſt women, that worſhipped *Priapus*; or the *Tartars*, which at this day worſhip the Devil, to the end that he ſhould do them no harm. Thus much I can only ſay of the friends and lovers of Serpents, by the multitude whereof we may conjecture, how among other parts of the curſe of God upon them, they are held accurſed both by man and Beaſt.

Now then it ſolloweth, that we enter into a more particular deſcription, or rather a relation of that hatred which is between them and other creatures, and firſt I will begin with their arch enemy, I mean Man-kinde For when GOD at the beginning did pronounce his ſentence againſt the Serpent, for deceiving our firſt Parents, among other things he ſaid, *I will put enmity betwixt thee and the Woman, betwixt thy ſeed and the Womans ſeed.* Whereby he did ſignifie that perpetual war, and unappeaſable diſcord, which ſhould be for ever (by his own appointment) betwixt them. And the truth hereof is to be ſeen at this day, for by a kinde of ſecret inſtinct, and natural motion, a man abhorreth the ſight of a Serpent, and a Serpent the ſight of a man. And as by the tongue of the Serpent, was wrought mans confuſion, ſo by the ſpittle of a mans tongue, is wrought a Serpents aſtoniſhment. For indeed ſuch is the Ordinance of God, that Men and Serpents ſhould ever annoy and vex each other. And this *Eraſmus* ſaith ſhall continue, as long as *meminerimus illius inauſpicati pomi*, we ſhall remember that unfortunate Apple.

Iſidorus ſaith, that Serpents are afraid of a man naked, but will leap upon, and devour a man clothed. Which thing is alſo affirmed by *Olaus Magnus*, for he ſaith, that when he was a boy he often tryed it, that when he was naked, he found little or no reſiſtance in Serpents, and did ſafely without all danger combat with them hand to hand. I my ſelf alſo in my younger time, when I was about ten or twelve years old, uſed many times in the Spring and Summer time, to waſh my ſelf with other my Colleagues, in certain fiſh-ponds, wherein I have ſeen and met with divers Water-ſnakes without all harm; and I did never in my life, hear of any harm they did to any of my fellows being naked, neither did I ever ſee any of them run away ſo faſt on the land, as they did fly from us in the water; and yet are not the Water-ſnakes leſs hurtful then the Land-adders. And this was well known to many.

At Seaven oak in *Kent*, which now belongs to Sir *Ralph* Boſſevile, Knight, *&c.*

Ælianus.
Pliny.

About the beginning or Fountain Springs of *Euphrates*, it is ſaid, that there are certain Serpents which know ſtrangers from the people of the Countrey, wherefore they do no harm to the natural born Country-men, but with ſtrangers, and men of other Countreys they fight with might and main. And along the banks of *Euphrates* in *Syria*, they alſo do the like; ſaving that if they chance to be trode upon by any of the people of thoſe parts, they bite (like as a Dog doth) without any great harm; but if any other, forainer or ſtranger annoy them, they alſo repay him with malice, for they bite him, and intolerably vex him; wherefore the Countrey-men nouriſh them, and do them no harm. Such as theſe are alſo found in *Tirinthus*, but they are very little ones, and are thought to be engendered of the earth.

The firſt manifeſtation in nature, of Mans diſcord with Serpents, is their venom; for as in a Serpent there is a venom which poyſoneth a Man: ſo in a Man, there is the venom of his ſpittle which poyſoneth a Serpent. For if the faſting ſpittle of a Man fall into the jaws of a Serpent, he certainly dyeth thereof. And of this, thus writeth the Poet *Lucretius*;

Eſt utique ut Serpens, hominis quæ tacta ſalivis
Diſperit, ac ſeſe mandendo conficit ipſa.

In Engliſh thus;

As Serpent dyeth when ſpittle of Man he taſteth,
Gnaſhing his teeth to eat himſelf he waſteth.

The cauſe of this, the Philoſophers (which knew nothing of *Adams* fall, or the forbidden Apple) *Pierius.* do aſſign to be in the contrariety betwixt the living ſouls or ſpirits of theſe Creatures: for the Serpents life is cold and dry, and the Humane life hot and moiſt, wherefore either of both abhorreth one the other; and the Serpent leapeth as far from a Mans ſpittle, as it would do out of a veſſel of ſcalding water.

Agatharſides writeth, that there was a King in *Africk* called *Pſyllus*, whoſe Sepulchre was preſerved in the greater *Syrtes*. From this King there were certain people named *Pſyllians*, in whoſe bodies there was a certain inbred and natural power to kill, or at the leaſt to aſtoniſh Serpents, Spiders, Toads, and ſuch like, and lay them for dead, even by the ſavour or ſmell of them. And the manner of theſe men, to try the chaſtity of their Wives, was to take their children newly born, and to caſt them unto direful Serpents: for if they were of the right line, and lawfully begotten, then did the Serpents die before them, but if they were adulterous, and the children of ſtrangers, the Serpents would eat and devour them. *Pliny* affirmeth, that even in his days there were ſome of thoſe people alive among the *Naſamons*, who deſtroyed many of them, and did poſſeſs their places; yet ſome running from death, eſcaped. Generally, ſuch people were called *Marſi* and *Pſilli*, for the *Marſi* were a people of *Italy*, deſcended of *Circes* (as is ſaid) in whom there was a vertue to cure all the ſtinging of Serpents, by touching the wounded places. Such ſaith *Crates Pergamenus*, are in *Helleſpont*, about the River *Parius*. And ſome are of opinion, that at the beginning they were *Ophiogenes*, born or bred of Serpents; or that ſome great Nobleman, father of that Countrey, was of a Serpent made a man. And *Varro* ſaith, that in his time there were ſome few men alive, in whoſe ſpittle was found that vertue, to reſiſt and cure the poyſon of venomous Beaſts.

But having named *Ophiogenes*, or *Anguigenæ*, that is, Men bred of Serpents or Snakes, I ſee no cauſe why it ſhould be judged, that thoſe which cure Serpents poyſon, ſhould be ſo misjudged; for to cure poyſon, is not the work of poyſon, but of an Antidote, or contrary power to poyſon: and therefore curers and reſiſters of poyſon, are without all learning called *Ophiogenes*, that is, Serpents brood: but rather, that term belongeth more juſtly to thoſe people, whoſe nature is ſociable with Serpents, and Serpents agree with them, as they would do with their own kinde. Such an one was *Exagon* the Embaſſadour of *Rome*, who at the commandement of the Conſuls, (for their experience) was caſt naked into a veſſel or tun of Snakes, who did him no harm, but licked him with their tongues, and ſo with great miracle, he was let forth again untouched; and yet there is no more reaſon to ſay, that this man was born of the linage of Serpents, becauſe thoſe Men-enemies did not hurt him, then it was to ſay, that *Daniel* was born of Lions, becauſe that the Lions did not harm him. Or that *Romulus* and *Remus* were born of the kindred of Wolfs, becauſe a ſhe Wolf did nouriſh them. We do read of many people in the World, which were ſurnamed of Serpents, all which may as well be deemed to be deſcended of ſuch creatures, becauſe of their name, as well as the other, who were by GOD for their innocency preſerved from death.

Ebuſus was called *Colubraxia*, and the people thereof *Ophiuſſæ*, and in *Arabia* we read of the *Ophiades*, both which are derived from Serpents, called in *Greek*, *Opheis Euſtathius* alſo relateth a ſtory of a man called *Ophis*. I omit to ſpeak of the *Ophitæ* and others; yet thus much I muſt needs ſay, that commonly ſuch names have been given to Serpents, for ſome cauſe or accident, either faignedly or truly derived from Serpents. So we read of *Ophion*, a companion of *Cadmus*, and a builder of *Thebes*, who was ſaid to be made by *Pallas* of a Dragons tooth. Likewiſe the *Spartanes* were called *Ophiodeiroi* *Cœlius Rho.* by *Pythius*, becauſe in a famine they were conſtrained to eat Serpents.

S. *Auguſtine* maketh mention of certain blaſphemous Heretiques, who were called *Ophitæ*, becauſe they worſhipped a Serpent, and ſaid that the Serpent which deceived our firſt Parents *Adam* and *Evah*, was Chriſt. Wherefore they kept a Serpent in a Cave, whom they did nouriſh and worſhip, which at the charm of the Prieſt would come out of his Cave, and lick the Oblations which they ſet upon his Den; rowling and folding himſelf round about them, and then would go in again: then did theſe abominable Hereticks break theſe oblations into the Euchariſt, and receive them as ſanctified by the Serpent. And ſuch alſo is the ſtory of *Cœlius Rhod.* where he tearmeth the great Devil *Ophioneus*, whom both holy Scripture, and ancient Heathen ſay, that he fell out of Heaven. But all theſe things are but by the way, upon occaſion of that unnatural conceit of thoſe men called *Ophiogenes*: that is, deſcended or begotten by Serpents. Therefore I will return where I left, namely, to the hatred of Men to Serpents, and of Serpents to Men again: In teſtimony whereof, there have been mutual ſlaughters, namely Men which have killed monſtrous Serpents, and Serpents which have killed men again.

Diod. Sicul.

Hercules being but an Infant, (as Poets faign) killed thoſe two Serpents which *Juno* ſent to his cradle to deſtroy him; for *Juno* is ſaid to be much offended at his birth, becauſe he was begotten by *Jupiter* upon *Alcmena*; and therefore there was reſerved the Image of *Hercules* at *Athens*, ſtrangling a Serpent. But *Pierius* maketh of this fiction a good moral or Hieroglyphick, when he ſaith, that by *Hercules* ſtrangling of the Serpents in his cradle, is underſtood, how thoſe men which are born for any great enterpriſes, ſhould kill their pleaſures while they be young. I need not to ſtand long upon this point, for it is evident, that to this day there are many *Hyades*, both men and women, which are not afraid to kill the Serpents brood. But ſuch as have periſhed by Serpents, I mean men of any note, are alſo expreſſed, whereof *Ovid* writeth of *Ælacos*, the ſon *Priamus* and *Alixothoes*, who following the Nymph *Heſperia*, (with whom he was in love) was ſuddenly killed by a Snake biting his foot. So were *Apeſantus*, *Munitus*, *Eurydice*, *Laocoon*, *Opheltes* the ſon of *Lycurgus* King of *Nemea*, *Oreſtes*, *Idmon* and *Mopſus*, ſlain by Serpents: whereof *Opheltes*, by the negligence of his Nurſe *Hypſiphile*, leaving him ungarded in his cradle.

It is recorded by *Ælianus* and *Pliny*, that when a Serpent hath killed a Man, he can never more cover himſelf in the earth, but in puniſhment of ſo vile an offence, wandereth to and fro, ſubject to infinite miſeries and calamities, being not acknowledged by his female if he be a male, nor yet by the male if it be a female; and is forſaken of all his crew or ſociety. The earth it ſelf not daigning to entertain a man-murtherer into her bowels, but conſtraining him to live Winter and Summer abroad upon the open earth. And thus hath the Divine Providence diſpenſed his juſtice, that he ſuffereth not murther of men to be unpuniſhed among the greateſt haters and enemies of men.

Ælianus.
Herodotus.
Æneas Syl.

What monſters therefore are they which have Serpents in their delights, and admire that in them which ſhould be hated of all men. And how baſe were thoſe minded *Grecians*, which worſhipped the Serpent for a God? Or the *Athenians*, which kept a Serpent in their Temple, for an opinion that the ſame did conſerve their Tower or Caſtle from all enmity. *Jupiter* was alſo worſhipped in many places in the ſhape of a Serpent. And the ancient *Boruſſians* worſhipped a natural Serpent of the earth. It is ſtrange to conſider the errour of the King of *Calechut*, who doth as ſeverely puniſh the ſlaughter of a Serpent, as he doth the ſlaughter of a Man; and not only reſtraineth his ſubjects from harming them, but alſo buildeth for them little coats, wherein they ſafely lodge in the Winter time. And the cauſe of this errour, is their conceit, that they think Serpents are Divine powers dropped out of Heaven, which they prove, becauſe when they ſting fiercely, they quickly kill, and diſpatch their enemy ſuddenly. Wherefore they think that no creature can kill ſo ſpeedily, except an Angel of God. Some of the Heathen had their *Ophiocephale* Beaſts with Serpents heads, which they did worſhip for a God. And the Poet *Virgil* hath an excellent deſcription of *Æneas* his ſacrificing to the ghoſt of his Father *Anchiſes*.

Gellius.

——Adytis tum lubricus anguis ab imis
Septem ingens gyros ſeptena volumina traxit
Amplexus placide tumulum, lapſuſque per aras
Cærulea cui terga notæ, maculoſus & auro
Squammam incendebat ſulgor: ceu nubibus arcus
Mille trahit varios adverſo ſole colores,
Obſtupuit viſu Æneas, *ille agmine longo*
Tandem inter pateras, & lævia pocula Serpens
Libavitque dapes, rurſuſque innoxius imo
Succeſſit tumulo, & depaſta altaria liquit.

Which may be thus Engliſhed;

Then from the hollow holes, a ſliding Snake appeared,
Which ſeaven ways did winde and turn, and dead-mans tomb embrace,
Gliding along the Altar from, and back, with colour cleered,
By Sun-ſhine-light, like ſpots of gold each varied to the face
A thouſand hiews; whereat Æneas marvelled: but yet at laſt,
This Snake the holy diſhes, and ſmootheſt cups of choice
Did haſt to touch, like as it would the ſacreds taſt,
And ſo ſunk down from Altar clean, without both harm or noiſe.

Lampridius.

And to make an end of this Section, of the Antipathy betwixt Men and Serpents, that whoſoever is of the Womans ſeed, may profeſs himſelf an enemy to the Serpent, let him but conſider how that hateful monſter *Heliogabalus*, having by the help of the *Marſick* Prieſts gathered together many Serpents, one day in the morning, when the people were gathered together to ſee ſome rare and unheard of ſpectacle, ſuddenly he let looſe the Serpents, and hurt many of the people. *Tzetzes* telleth another ſtory, of a deviſe or warlike ſtratagem, how Serpents by ſlings or trunks, were ſent abroad among the Camps of their enemies. So doth *Galen*, of Serpents included in an earthen pot, and caſt like darts among the Tents of the *Romans*. And ſo did *Hannibal* ſhew to *Antiochus*, how in a battel by Sea, he might ſhoot Serpents among the Mariners to his Enemies, and hinder their rowing: for when he did follow the ſame deviſe at *Pruſiæ*, he went away Victor and Conqueror. And thus I will conclude this part, with the Emblem of *Alciatus*, which he wrote unto the Duke of *Millian* upon his Arms, being an Infant proceeding out of a Snakes jaws.

Pierius.

Exiliens Infans ſinuoſi è faucibus anguis,
Eſt Gentilitiis nobile ſtemma tuis.
Talia Pelleum geſſiſſe numiſmata regem
Vidimus, hiſque ſuum concelebraſſe genus,
Dum ſe Ammone ſatum, matrem anguis imagine luſâ,
Divini & ſobolem numinis eſſe docet.
Ore exit, tradunt ſic quoſdam enitier angues,
An quia ſic Pallas *de capite orta* Jovis*?*

In Engliſh thus;

Out of the mouth of winding Snake,
Great Duke, this is thy Creſt,
A leaping Infant making ſcape
From jawes, a wofull reſt:
The like Coat did Pelleus *King*
Upon his ſilver preſſe,
As we have ſeen, the ſame to ſing
Of Kindreds worthineſſe.
For whiles of Jove *he glorieth,*
Deſcended of his race,
He feigns his mother like a Snake,
Born of Divineſt grace.
But why proceeding from the mouth?
Some Serpents ſo are bred,
Or elſe that Pallas *iſſueth*
Out of great Jove *his head.*

And the like by the ſame Author is expreſſed upon this Theam, *That the wiſdome of man is fooliſhneſſe with GOD*; therefore upon the unnaturall conjunction of two mortall enemies, framed into one body, he thus writeth elegantly;

Quid dicam, quodnam hoc compellem nomine Monſtrũ?
Biforme quod non eſt homo, nec eſt draco.
Sed ſine vir pedibus, ſummis ſine partibus anguis,
Vir angui-pes dici, & homiceps anguis poteſt:
Anguem pedit homo, hominem ructavit & anguis,
Nec finis hominis eſt initium, nec eſt fera.
Sic olim Cecrops doctis regnavit Athenis,
Sic & Gigantes terra mater protulit.
Hæc vafrum ſpecies, ſed & religione carentem
Terrena tantum quique curet induat.

That is to ſay;

What ſhall I call? or how this Monſter rightly name?
Biformed, which nor man nor Dragon, in all the ſame.
But man unlegged, and Snake unheaded: doubtfull parts,
Man-ſnake, Snake-man, exceeding humane arts.
Mans tail breeds Snake, and Snake a man up-caſteth,
One end is not of man, nor other of wilde beaſt taſteth.
Such one was Cecrops, *learned* Athens *King,*
And Giants ſuch did earthly mother bring.
Miſhapen then, an earthly minde expreſſeth,
Devoid of grace for worlds good only wiſheth.

Thus then I will leave to talk of our moſt juſt (and by GOD ordained) hoſtility, betwixt men and Serpents, and deſcend to a particular diſcovery, how Serpents and other beaſts are for mans ſake at the like enmity. And firſt of all I will begin with the Fowls, and ſo deſcend to Four-footed beaſts, and Inſects, or imperfect creatures.

Eagles are alway in warre with Serpents, from an high they eſpy them, and ſuddainly flie down upon them, with a great noyſe or cry, tearing out their bowels, and caſting aſide their venom or poyſon. And ſome (as *Albertus*) ſay, that they will in particular deal with Vipers, Tigers, and Dragons, when ſhe ſeeth them hunting thoſe ſmall beaſts or birds which are her prey. This fight is thus deſcribed by *Virgil*, how the Eagle griping the Serpent in her talons, flyeth into the air.

Utque volans alte raptum cum fulva draconem
Fert Aquila, implicuitque pedes, atque unguibus hæſit.
Saucius & Serpens, ſinuoſa volumina verſat,
Arrectis horret ſquammis, & ſibilat ore,
Arduus inſurgens: illa haud minus urget adunco
Luctantem roſtro, ſimul æthera verberat alis,

In Engliſh thus;

As Eagle flyeth on high, and in her clawes a Dragon beareth,
Folded within her feet, wounded, dying to her talons cleaveth.
The Serpent fierce now windeth round, and with her head erected,
Hiſſing out threats, rough ſcales upſetteth that were dejected,
To fright her ſo: but all in vain, for ſhe with beak doth ſtrive,
And beat the air with wings of force, till Dragon ceaſe to live.

There is in the ſeventh book of *Ælianus* Hiſtory of living Cretures, a notable and elegant ſtory of an Eagle which was almoſt overcome by a Serpent, and yet preſerved and made Conquerour by a man. There was (ſaith he) ſixteen men which were threſhing of corn in the heat of the Sun, by reaſon whereof they became very thirſty, then they agreed to ſend one of their company to a Fountain not far off, to fetch ſome water for them all to drink; and ſo the Meſſenger coming to the Fountain, found an Eagle almoſt killed by a Serpent: for whiles from an high ſhe beheld the Serpent, being more greedy of the prey for to feed her young, then wary to avoid danger, fell down upon her booty, which was too ſtrong for her; for the Serpent received her adverſary with fell force, power, and preparation to ſtifle her, and ſo indeed ſhe had accompliſhed, had not by chance this threſher come unto them: for the Serpent had ſo enſnared and wrapped up the

Eagle with her long body, that ſhe was nearer *ad pereundum quam ad perdendum*, that is, to be killed, then to kill, or get a prey. The Man beholding the ſight, with his ſickle cut aſunder the Serpent, and ſo delivered the Eagle: but how the Eagle requited the Man, ſhall be ſhewed in the hiſtory of the Eagle.

P. Venetus.
Ariſtotle.
Philoſtratus.

In the Mountains of *Morſilium*, there are great ſtore of great Serpents, which are very dangerous, but there are alſo great white Eagles, which do eat and deſtroy them. Some ſay that the Vulture doth deſtroy Serpents, but herein I cannot be ſatisfied, for all Eagles do not hunt after this game, but only the leſſer ſort of them. Eagles when they build their neſt to breed in, they ſeek out a certain ſtone called *Aëtites*, the vertue whereof keepeth Serpents from their young, and alſo make their eggs fruitful, ſo as it is a very rare thing for Eagles to have a rotten egge.

Solinus.

All kindes of great Hawks, Buſſards and Kites, are alſo enemies to Serpents, Snakes, and Adders, and the Kites will eat them, if they finde them alive or dead, as I my ſelf have often ſeen by experience. The Storks alſo do hunt after Serpents, wherefore in *Theſſaly*, it is as unlawful to kill a Stork as to kill a Man; for they have many deviſes to catch Serpents, and all venomous Beaſts, and thereof to eat without harming themſelves: and not only eat themſelves, but give thereof to their young ones, as *Juvenal* witneſſeth:

——*Serpente ciconia pullos*
Nutrit, & inventa per devia rura lacerta.

In Engliſh thus;

The Stork her young ones, according to kinde,
In Serpents and Lizzards, do their meat finde.

Sometimetime they fight together irefully, and the Serpent ſtrangleth the Stork by twyning about her neck; again, the Stork killeth the Serpent by pecking upon her head, and ſo ſometimes they are both found dead together. As the Eagle hath the ſtone *Aëtites*, ſo hath the Stork *Lychnites*, to defend herſelf and her young ones from the rage of Serpents. There is (as *Oppianus* writeth in his *Ixeuticis*) this vulgar ſtory in *Italy*. There was a certain Serpent, which came two years together to the neſts of divers Storks, and deſtroyed their young ones, neither could all the Storks make ſufficient force againſt her with all their might to ſave their brood. The third year the Serpent came again to attempt the like ſlaughter; but there among the Storks ſhe found a certain ſtrange Bird never ſeen before, being ſhorter then the Storks, and yet had a great long ſharp bill, as ſharp as the point of any ſword. This Bird (as it ſeemeth) was brought thither by the Storks to guard their young ones, when the Parents were gone abroad to forrage for them. Then, aſſoon as the young ones were hatcht, out cometh the Serpent from his hole, and beginneth to aſſail the neſts of the Storks, but the guardian Bird, (according to the truſt committed to her) reſiſted the Serpent, and pecked at her mortally with her ſharp beak. The Serpent to end his adverſary, nimbly advanced himſelf upright, and endeavoured to reach the Bird, but the wary Bird ſoared ſo high above his reach, that the langrel Serpent could not catch him, and ſo they continued in fight, till at laſt the Bird killed the Serpent, after that the Serpent had once only faſtened his venomed teeth upon the Bird, which afterward ſo wrought upon this Bird, that all her feathers did flie off from her back.

Philes.
Marcedi.
Simocratus.
Diodorus.
Zoroaſter.

But of all other Fowls enemies to Serpents, there is none greater or more deadly, then the Bird called *Ibis*, which the *Egyptians* do wonderfully honour; for when ſwarms of Serpents come into *Egypt*, out of the *Arabian* gulfs and fens, theſe Birds meet and deſtroy them: and there is ſuch an admirable fear in Serpents of theſe Birds, that they do not only tremble, and fall ſenſeleſs at their ſight, but alſo at the ſight of their feathers: they do harm to no other living thing, except Locuſts and Caterpillers, wherefore they are worthily nouriſhed, and called *Inimicæ & populatores Serpentum*, enemies and deſtroyers of Serpents.

All kinde of Pullen, as Cocks and Hens, are likewiſe enemies to the brood of Serpents. And a good couragious Cock, (as *Columella* ſaith) is able to kill and reſiſt a Serpent. For, (as *Rondoletius* ſaith) he hath found in the crop or craw of Pullen, young Serpents devoured by them. But from whence *Albertus* had his relation, that a Hen cannot be hurt that day by a Serpent wherein ſhe layeth an Egge, I cannot tell, and therefore leave it to the Reader to believe or refuſe.

Creſcentius.

And it is alſo ſaid, that the fleſh of Hens applyed to the bitings of Serpents, doth cure them, or elſe cauſe a Hen to ſit upon the wounded place; but if the Beaſt which is wounded, be a Cow with Calf, or any ſuch other femal with young, howſoever it fareth with the old one, ſurely the young ones ſhall periſh.

Textor.

There is alſo another Bird, which for his combating with Serpents, is termed *Ophiomachus*, a fighter with Serpents. Although *Geſner* be of opinion, that *Ophiomachus* never ſignifieth a Bird. Of this Bird the *Septuagints* make mention, Levit. 11. but many of the better learned, do interpret it for a Lizard, or a Locuſt, or an Ichneumon. The Peacock alſo is a terrour to Serpents, ſo as they will not abide within the hearing of his voyce, for it is perpetual with all venomous beaſts. And the Vulture, as we ſaid before, is a terrour unto them, inſomuch as one of their feathers burned will by the ſavour of the ſmoak drive away the Serpent. And to conclude, the Swallows alſo are at variance with the Serpents brood, for the Snake will creep up to the Swallows neſt, and therein ſuddenly ſurprize the young, for the old ones will fly away chattering, and chirping in mournful ſort, not being able to hinder or reſiſt their chick-devouring foes. But at the laſt, when they ſee all their young ones diſpatched, as if they could not endure to live for ſorrow, or elſe thinking it poſſible to fly into the ſnakes belly to fetch out again their devoured young ones, they fall down upon their enemies jaws, doing what they can to make them devour and ſwallow them up alſo. And thus much for the hatred betwixt fowls and Serpents: Wherein, although they kill the Serpent, either in their own defence, or elſe for raven and prey, yet may we admire the prudence of the moſt mighty Creator, who hath ſo diſpoſed of his power, that he cauſeth the Fowls of Heaven to revenge Mans quarrel upon the Serpents of the earth, by whoſe ſubtilty Man was plucked from Heaven, and they made ſubject to corruption.

Oppianus.

In the next place, God hath alſo framed an oppoſition betwixt Serpents, and the Beaſts of the earth and water, which live with Serpents in the ſame Element, that ſo they might be both annoyed at home and abroad. I will therefore begin with the Dog, who is a notable enemy to the Serpents, as I my ſelf have ſeen many in *England*, for he will earneſtly ſeek them out with noſe and foot, both in waters, dunghils, and hedges, and when he hath found any one, he will ſuddenly ſnatch him into his mouth, biting him about the middle, and ſo holding it in equal poyſe, will fling and ſhake it about his ears very faſt and violently, till he perceive it can ſtir no more, and then ſuddenly again letteth it fall out of his mouth to the earth; but if it begin to ſtir, he ſnatcheth it up again, and ſhaketh it about his ears as before, and ſo never giveth over till it appear dead: but they ſeldom kill them, only they aſtoniſh them, and ſo may a young childe knock out their brains. Howbeit, when they fight in defence of their Maſters, then they kill them, by biting them in pieces And yet is it more ſafe for them, to aſtoniſh them, and leave them for dead, by ſhaking them about their ears, then by biting them in pieces, for that commonly then, while they ſhare them aſunder, they are ſtung or bitten by the Serpent. And this I have ſeen often in mine own experience. But one of the greateſt enemies of Serpents are Harts, a timorous beaſt of all other, and yet greedy to combat with the Serpent, wherefore I will briefly deſcribe this their war and hatred, out of *Solinus*, *Ælianus*, *Plutarch*, and *Oppianus*.

The Hart will greedily follow out the path of the Serpent, and finding it lodged in his den or hole, by the vertue of his noſe draweth it out of the Earth, and thereof ſome have derived *Elaphos*, a Hart, of *Elaunein tous opheis*, that is, driving away of Serpents. And herein I think it not reaſon to follow the opinion of *Ælianus*, who intreating of Harts drawing Serpents out of the earth, ſaith, that the Serpent is inticed and allured out of her hole, by the breath of the Hart, as by a Philtre or Cup of love; for ſeeing that there is ſo great an hoſtility, and antipathy in nature, betwixt their whole diſpoſition, how can it come from any ſecret ſympathy, that the Serpent (which is the ſubtilleſt of of all beaſts) ſhould be bewitched with the love of his enemies breath? But if it be ſaid that Serpents, which are by nature very cold, can eaſily be drawn forth by a warmer breath, as it were by the ſweet beams of the hot Sun; how then falleth it not out, that when any other Beaſt breatheth upon their lodging, and into their dens, they are not removed? But let it be granted that the warmneſs of the Harts breath maketh him forſake his den, yet it cannot be aſcribed to any ſecret in nature, as if there were a fire of love in the Harts throat or bones, but only from the natural concomitant quality of heat, with exſpiration, reſpiration, and inſpiration: and therefore I cannot but conclude, that there is not any poſſibility or probability in nature, that where the ſpirits, which take and make the breath, are at ſuch variance, there the breath proceeding from the one adverſary, ſhould ſo inchant and beguile the other.

But the true cauſe of this extraction of Serpents out of their lodgings, is, as I conjecture, not her warm breath that allureth, nor yet ſcorcheth and burneth her adverſary; but that when the Hart hath found the den of the Serpent, by her violent attraction of the air out from the Serpent, ſhe enforceth it for the ſafegard of life to follow it out of the den. As when a veſſel is broched, or vented, the Wine followeth the flying air; or as a Cupping-glaſs draweth bloud out of a ſcarified place of the body: and ſo is a Serpent againſt her will, drawn to follow the breath of her deſtroyer. *Oribaſius* and *Gunterius* do ſubſcribe unto this opinion, and take it for moſt conſonant to reaſon and truth, and therefore I will not follow it any further: for by the ſelf ſame manner do the Sea-Rams draw the Sea-calfs out of their lodgings among the Rocks under the earth, for when they have found the Calf, they keep it from air, and prevent their refrigeration.

When the Serpent ſeeth himſelf ſo drawn forth by his adverſary, he being above meaſure incenſed to rage, flyeth away, and maketh his poyſon more noiſome, violent and powerful, for which cauſe, there was wont to be a Proverbial caveat or warning: *Cave ne incideris in Serpentem, quum extracta à latebris anhelitu cervi effugerit, tum enim propter iracundiam vehementius ei venenum eſt.* Take heed leſt you meet with a Serpent flying away from the Hart, after ſhe is drawn out of her den by her breath, for then, by reaſon of her rage, her poyſon is more forcible. But I will proceed to the more ſtrange and wonderful combate betwixt Serpents and Harts. For when the Serpent perceiveth the unavoidable danger, and that ſhe muſt needs fight for her life, ſhe hiſſeth ſtrongly, lifting up her head from the earth, even to the throat of the Hart, and thereat catcheth and gnaſheth with her teeth; but on the other ſide, the valiant Hart, (if ſuch a word may be given to a fearful Beaſt) as it were deriding his adverſaries weak endevours to harm, ſuffereth the Serpent to winde about his breaſt and belly, and to embrace both neck and legs with his long and weak body, that ſo he may have the more power upon it, for he teareth it into an hundred pieces.

But the moſt ſtrange combats are betwixt the Harts and Serpents of *Lybia*, where hatred hath his deepeſt footing, for there the Serpents watch the Hart when he lyeth down to ſleep upon the ground, and being a multitude of them ſet upon him all together, faſtning their poyſonfull teeth in every part of his skin, ſome on his neck and breaſts, ſome on his ſides and back, ſome on his legs, and ſome hanging upon his privy parts, biting him with mortall rage, to end and overthrow him. The poor Hart being thus oppreſſed with multitude, and aſſailed without any warning to the battle, in vain attempteth to run away, for their cold earthy bodies, winding tayls, and pinching teeth, hinder his wonted pace, and overcharge his ſtrength: whereat being forced to quit himſelf in the beſt manner he can, enraged, with teeth, feet, and horns aſſaileth his enemies, whoſe ſpears and arrowes of teeth and ſtings, ſtick ſo faſt in his body; tearing them in pieces which he can touch with his teeth, beating others aſunder where he can reach them with his horns, and trampling under his feet thoſe which cleave to his lower parts: and yet ſuch is the rage and dauntleſſe courage, or rather hatred of theſe enemies, not willing to die alone, (but like Champions to end their lives upon and with their adverſary) do ſtill hold faſt, and even when their bodies are beaten in pieces, their heads ſtick cloſe, and hang ſharp upon the Harts skin, as though they would grow with him, and never fall off till he ſhould alſo fall down dead. But the Hart feeling ſome eaſe, and having by the ſlaughter of their bodies delivered his feet from thraldome, by a divine naturall inſtinct, flyeth and runneth faſt to ſome adjoyning fountain, where he ſeeketh for Sea-crabs, whereof he maketh a medicine, that ſhaketh off their heads which cleave ſo faſt unto him, and alſo cureth all their wounds and poyſon. This valiant courage is in Harts againſt Serpents, never yeelding, tyring, or giving over, and yet otherwiſe, are afraid of Hares and Conies by nature.

But what is the cauſe of this hoſtility betwixt Harts and Serpents? Is it for meat, or for medicine and cure? Surely they would abhorre to eat them, if it were not for health and naturall medicine, for ſometimes the pores of their body are dulled and ſhut up, ſometimes the worms of their belly do aſcend up into the roof of their mouths while they chew the cud, and there cleave faſt; for remedy whereof, the Hart thus afflicted, runneth about to ſeek for Serpents, for the eating of a Serpent cureth this malady. *Pliny* ſaith, that when the Hart waxeth old, and perceiveth that his ſtrength decayeth, hair changeth, and his body begins to be feeble, then for the renewing of his ſtrength, he firſt devoureth a Serpent, and afterward runneth to ſome fountain of water. whereof when he hath drunk, he findeth a ſenſible alteration, both in horn, hair, and whole body, And this thing is alſo delivered by the Writer of the Gloſſe upon the 42. Pſalm, which beginneth, *Like as the Hart deſireth the water ſprings, ſo longeth my ſoul after my GOD.* But for the ending of this queſtion, we muſt conſider and remember, that there are two kindes of Harts, one eateth Serpents, and feeling the poyſon to work, ſtraight-way by drinking caſteth up the poyſon again, or elſe cureth himſelf by covering all his body over in water. The other kinde only by nature killeth a Serpent, but after victory forbeareth to eat it, and returneth again to feed in the Mountains. And thus much for the diſcord betwixt Harts and Serpents.

In the next place, great is the variance betwixt Serpents, Dragons, and Elephants, whereof *Pliny* and *Solinus* write as followeth. When the Elephants called Serpent-killers, meet with the Dragons, they eaſily tread them in pieces, and overcome them, wherefore the Dragons and greater Serpents uſe ſubtilty in ſtead of might; for when they have found the path, and common way of an Elephant, they make ſuch deviſes therein to intrap him, as a man would think they had the deviſe of men to help them, for with their tails they ſo enſnare the way, that when the beaſt cometh, they intangle his legs as it were in knots of ropes; now when the beaſt ſtoopeth down with his trunk to looſe and untie them, one of them ſuddenly thruſteth his poyſoned head into his trunk, whereby he is ſtrangled. The other alſo (for there are ever many which lie in ambuſh) ſet upon his face, biting out his eyes, and ſome at his tender belly; ſome winding themſelves about his throat, and all of them together, ſting, bite, tear, vex, and hang upon him, untill the poor beaſt, emptyed of his blood, and ſwollen with poyſon in every part, fall down dead upon his adverſaries, and ſo by his death kill them at his fall and overthrow, whom he could not overcome being alive. And whereas Elephants (for the moſt part) go together in flocks and troops, the ſubtile Serpents do let paſſe the foremoſt of every rank, and ſet only upon the hindermoſt, that ſo one of the Elephants may not help another; and theſe Serpents are ſaid to be thirty yards long.

Ælianus. Likewiſe, foraſmuch as theſe Dragons know, that the Elephants come and feed upon the leaves of trees, their manner is to convey themſelves into the trees, and lie hid among the boughs, covering their foreparts with leaves, and letting their hinder parts hang down, like dead parts and members; and when the Elephant cometh to brouze upon the tree-tops, then ſuddenly they leap into his face, and pull out his eyes, and becauſe that revenge doth not ſatisfie her, thirſting only after death, ſhe twineth her gable-long body about his neck, and ſo ſtrangleth him.

It is reported that the blood of Elephants is the coldeſt bloud in the world, and that the Dragons in the ſcorching heat of Summer, cannot get any thing to cool them except this bloud: for which cauſe they hide themſelves in Rivers and Brooks, whither the Elephants come to drink, and when he putteth down his trunk they take hold thereof, and inſtantly in great numbers leap up into his ears, which only of all his upper parts are moſt naked and unarmed, out of which they ſuck his bloud, never giving over their hold till he fall down dead, and ſo in the fall kill them which were the procurers of his death. So that his and their bloud is mirgled both together, whereof the Ancients made their Cinnabaris, which was the beſt thing in the World to repreſent bloud in painting. Neither can any deviſe or art of man ever come neer it; and beſide, it hath in it a rare vertue againſt poyſon. And thus much for the enmity betwixt Serpents and Elephants.

The Cat alſo by *Albertus* is ſaid to be an enemy to Serpents, for he ſaith ſhe will kill them, but not eat thereof; howbeit, in her killing of them, except ſhe drink incontinently, ſhe dyeth by poyſon. This relation of *Albertus* cannot agree with the Monks of *Meſuen* their relation about their Abby-cat. But it may be that *Albertus* ſpeaketh of wilde-cats in the Woods and Mountains, who may in ravin for their prey kill a Serpent, which followeth with them the ſame common game.

The Roes or Roe-bucks do alſo kill Serpents, and the Hedge-hog is enemy unto them, for ſometimes they meet both together in one hole, and then at the ſight of the Serpent, the Hedge-hog foldeth himſelf up round, ſo as nothing appeareth outwardly, ſave only his prickles and ſharp briſtles: the angry Serpent ſetteth upon him, and biteth him with all her force; the other again, ſtraineth herſelf above meaſure, to annoy the Serpents teeth, face, eyes, and whole body: and thus when they meet, they lie together afflicting one another, till one or both of them fall down dead in the place. For ſometime the Serpent killeth the Hedgehog, and ſometime the Hedge-hog killeth the Serpent, ſo that many times ſhe carrieth away the Serpents fleſh and skin upon her back.

The Weaſels alſo fight with Serpents with the like ſucceſſe; the cauſe is, for that one and other of them live upon juyce, and ſo for their prey or booty, they fall together in mortall warre. Herein the Weaſel is too cunning for the Serpent, becauſe, before ſhe fighteth, ſhe ſeeketh Rue, and by eating thereof quickly diſcomforteth her adverſary. But ſome ſay, that ſhe eateth Rue afterward, to the intent to avoyd all the poyſon ſhe contracted in the combat.

Ariſtotle.
Perottus.
Iſidorus.
Ælianus.

The Lyon alſo and the Serpent are at variance, for his rufling mane is diſcouraged by the extolled head of the Serpent to his breaſt. And therefore as S. *Ambroſe* ſaith, this is an admirable thing, that the Snake ſhould run away from the Hart, the moſt fearfull of all other beaſts, and yet overcome the Lyon, King of all the reſidue.

The *Ichneumon* or *Pharos* Mouſe is an enemy to Serpents and eateth them, and becauſe he is too *feeble to deal* with a Snake alone, therefore when he hath found one, he goeth and calleth as many of his *fellowes* as he can finde, and ſo when they find themſelves ſtrong enough in company, they ſet upon their prey, and eat it together; for which cauſe when the *Egyptians* will ſignifie weakneſſe, they paint an *Ichneumon*. The Peacock is alſo a profeſſed terror and ſcourge to Snakes and Adders, and they will not endure neer thoſe places where they hear their voice. The *Sorex* and Swine, do alſo hate and abhor Serpents, and the little *Sorex* hath moſt advantage againſt them in the Winter-time, when they are at the weakeſt. To conclude, the Horſe is wonderfully afraid of all kindes of Serpents if he ſee them, and will not go over, but rather leap over a dead Snake. And thus I will end the warre betwixt Serpents and Four-footed beaſts and Fowls.

Bellonius.
Crus.

Now leſt their curſe ſhould not be hard enough unto them, God hath alſo ordained one of them to deſtroy another, and therefore now it followeth to ſhew in a word the mutuall diſcord betwixt themſelves. The Spider, (although a venemous creature) yet is it an enemy to the Serpent; for when ſhe ſeeth a Serpent lie under her tree in the ſhadow, ſhe weaveth or twiſteth a thred down from her web upon the head of the Serpent, and ſuddenly biteth into his head a mortal wound, ſo that he can do nothing but only roul to and fro, being ſtricken with a Megrim, whereby he hath not ſo much power as to break the Spiders thred hanging over his head, untill he be dead and overthrown. The Cockatrice is ſuch an enemy to ſome kinde of Serpents, that he killeth them with his breath or hiſſing.

Pliny.
Eraſmus.

The Lizard a kinde of Serpent is moſt friendly to man, and very irefull againſt Serpents, to the uttermoſt of his power, whereof *Eraſmus* (in his book of Friendſhip) telleth this ſtory: I ſaw (ſaith he) on a day, a very great Lizard fighting with a Serpent in the very mouth of a Cave, at the firſt ſight whereof I marvailed at the matter, for the Serpent was not viſible out of the earth: there was with me an *Italian*, who ſaid, that ſurely the Lizard had ſome enemy within the Cave. After a little while the Lizard came unto us, and ſhewed us his ſide all wounded, as it were craving help, for the Serpent had bitten him ſore, for of green he made him appear red, and this Lizard did ſuffer himſelf to be touched of us. Thus ſaith *Eraſmus*.

Again, in the ſame place he ſaith, that when a Lizard ſaw a Serpent lye in wait to ſet upon a man being aſleep, the Lizard ran to the man, and never ceaſed running upon the mans face, ſcratching his neck and face gently with his clawes, untill he had awaked the man, and ſo diſcovered to him his great danger. The Locuſt alſo fighteth with a Serpent, and killeth him when he luſteth, for he getteth hold with his teeth upon his lower chap, and ſo deſtroyeth him; but this is not to be underſtood of every kinde of Locuſt, but only of one kinde, which for this cauſe is called *Ophiomachum genus*.

The Serpent is alſo an enemy to the Chamæleon, for in the extremity of famine, ſhe ſetteth upon them, and except the Chamæleon can cover herſelf from his rage, he hath no defence but death. *Albertus* calleth a certain Worm, *Spoliator colubri*, becauſe (as he ſaith) it will take faſt hold upon a Serpents neck underneath his jawes, and never give over till he hath wearied and deſtroyed his adverſary. The Tortoiſes are enemies to Serpents, and will fight with them, but before they enter combat, they arm themſelves with wilde Marjoram or Penniroyall.

Ælianus.

Thraſillus.
Pliny.
Ælianus.

But there is not any thing in the world that fighteth more earneſtly againſt Serpents then Sea-crabs and Creviſes, for when the Sun is in *Cancer*, Serpents are naturally tormented with pains and feavers, and therefore if Swine be ſtung or bitten with Serpents, they cure themſelves by eating of Sea-crabs. There is a great water neer *Epheſus*, at the one ſide whereof there is a Cave full of many noyſome and irefull Serpents, whoſe bitings by often probation, have been very deadly both to men and beaſts. Theſe Serpents do often times endevour to crawl over the pool; now on the other ſide, there are great ſtore of Crabs, who when they ſee the Serpents come crawling or ſwimming, they inſtantly put out their crooked legs, and as it were with tongs or pinſers, reach at the ſliding Serpent, wherewithall the Serpents are ſo deterred, that through their ſight, and often remembrance of their unhappy ſucceſſe with them, they turn back again, and never dare any more adventure to the other ſide. Where we may ſee the moſt wiſe providence of the Creator, who hath ſet Sea-crabs the enemies of Serpents, to guard both men and Cattell, which are on the oppoſite ſide: for otherwiſe, the inhabitants would all periſh, or elſe be drove away from their dwellings. To conclude, not only living Creatures, but alſo ſome kinde of earth, and Plants are enemies to Serpents: And therefore moſt famous are *Ebuſus* and *Creet*, as ſome ſay, although *Bellonius* ſay, that there are *Scolopendraes* Vipers, and Slow-worms in *Creet*, yet he ſaith they are without venom: and there are very few in *England* and *Scotland*, but none at all in *Ireland*, neither will they live if they be brought in thither from any other Countrey. This antipathy with Serpents, proceedeth from living to dead and vegetable things, as trees, herbs, and plants, as may be ſeen by this diſcourſe following.

Ælianus.
Conſtantinus.
Ælianus.

There is ſuch vertue in the Aſh-tree, that no Serpent will endure to come neer either the morning or evening ſhadow of it, yea though very far diſtant from them, they do ſo deadly hate it. We ſet down nothing but that we have found true by experience: If a great fire be made, and the ſame fire encircled round with Aſhen boughs, and a Serpent put betwixt the fire and the Aſhen boughs, the Serpent will ſooner run into the fire, then come neer the Aſhen boughs: Thus ſaith *Pliny*; *Olaus Magnus* ſaith, that thoſe Northern Countreys which have great ſtore of Aſh-trees, do want venemous beaſts, of which opinion is alſo *Pliny*. *Callimachus* ſaith, there is a Tree growing in the land of *Trachinia*, called *Smilo*, to which if any Serpents do either come neer or touch, they forthwith die. *Democritus* is of opinion, that any Serpent will die if you caſt Oken-leaves upon him. *Pliny* is of opinion, that *Alcibiadum*, which is a kinde of wilde Bugloſſe, is of the ſame uſe and quality; and further, being chewed, if it be ſpit upon any Serpent, that it cannot poſſibly live. In time of thoſe ſolemn Feaſts which the *Athenians* dedicated to the Goddeſſe *Ceres*, their women did uſe to lay and ſtrew their beds, with the leaves of the Plant called *Agnos*, becauſe Serpents could not endure it, and becauſe they imagined it kept them chaſte, whereupon they thought the name was given it. The herb called Roſemary, is terrible to Serpents.

Elecampane in *Engliſh.*

The *Egyptians* do give it out, that *Polydamna*, the wife of *Thorris* their King, taking pity upon *Helen*, cauſed her to be ſet on ſhore in the Iſland of *Pharus*, and beſtowed upon her an hearb (whereof there was plenty) that was a great enemy to Serpents; whereof the Serpents having a feeling ſenſe (as they ſay) and ſo readily known of them, they ſtraightwayes got them to their lurking holes in the earth: and *Helen* planted this herb, who coming to the knowledge thereof, ſhe perceived that in his due time it bore a ſeed that was a great enemy to Serpents, and thereupon was called *Helenium*, as they that are ſkilfull in Plants affirm; and it groweth plentifully in *Pharus*, which is a little Iſle againſt the mouth of *Nilus*, joyned to *Alexandria* with a Bridge. Rue, (called of ſome Herb of grace) eſpecially that which groweth in *Lybia*, is but a back friend to Serpents, for it is moſt dry, and therefore cauſing Serpents ſoon to faint and loſe their courage, becauſe (as *Simocatus* affirmeth) it induceth a kinde of heavineſſe or drunkenneſſe in their head, with a vertiginy or giddineſs, through the exceſs of his drineſs, or immoderate ſiccity. Serpents cannot endure the ſavour of Rue, and therefore a Weaſel when ſhe is to fight with any Serpent, eateth Rue, as a defenſative againſt her enemy, as *Ariſtotle*, and *Pliny* his Interpreter are of opinion.

The Countrey-people leaving their Veſſels of Milk abroad in the open fields, do beſmear them round about with Garlick, for fear leſt ſome venemous Serpents ſhould creep into them, but the ſmell of Garlick, as *Eraſmus* ſaith, driveth them away. No Serpents were ever yet ſeen to touch the herb *Trifolie*, or Three-leaved graſſe, as *Aedonnus* would make us believe. And *Cardan* the Phyſitian hath obſerved as much, that neither Serpents nor any thing that is venemous, will lodge, dwell, nor lurk privily neer unto *Trifolie*, becauſe that it is their bane, as they are to other living Creatures: and therefore it is ſown to very good purpoſe, and planted in very hot Countreys, where there is moſt ſtore of ſuch venemous Creatures. *Arnoldus Villanovanus* ſaith, that the herb called *Dracontea* killeth Serpents. And *Florentinus* affirmeth, that if you plant Wormwood, Mugwort, and Sothernwood about your dwelling, that no venemous Serpents will ever come neer, or dare enterpriſe to invade the ſame. No Serpent is found in Vines when they flouriſh, bearing flowers or bloſſoms, for they abhor the ſmell, as *Ariſtotle* ſaith. *Avicen* an *Arabian* Phyſitian, ſaith, that Capers doe kill Worms in the guts, and likewiſe Serpents. If you make a round circle with the herb Betony, and therein include any Serpents, they will kill themſelves in the place rather than ſtrive to get away. *Galbanum* killeth Serpents only by touching, if Oyl and the herb called Fennel-giant be mixt withall. There is a ſhrub called *Therionarca*, having a flower like a Roſe, which maketh Serpents heavy, dull, and drowſie, and ſo killeth them, as *Pliny* affirmeth.

Albertus and *Kyranides* affirm, that there is a certain Tree in *Aſia*, called *Hyperdiocu*, which ſoundeth as much as *Againſt the right hand*, with whoſe ſweet fruit Doves are delighted; but there are Serpents which are ſore enemies to the Doves: ſo lying in wait for them, and not being able to abide the ſmell & ſhadow of the tree, the Doves notwithſtanding very ſafely do there in the tree ſeek their refuge, and finde food wherewith to ſuſtain themſelves. *Raſis* (who practiſed Phyſick one hundred years) affirmeth, that if any man do melt *Sal Almoniack* in his mouth, and then ſpit it into a Serpents mouth, that he will die of it.

Of the Medicines made and taken ont of SERPENTS.

Remedies to be had and taken from Serpents.

IT is manifeſt, that if any man be wounded of a Serpent, though the wound ſeem incurable, that the bowels or inward parts of the ſame Serpent, being applyed to the wound, will cure the ſame; and thoſe that have eaten the liver of a boyled Viper at any time, ſhall never after be wounded of any Serpent. Neither is a Snake venemous, unleſſe at ſome times of the Moon, when ſhe is throughly moved or angred. And a live Snake or Serpent being caught, if the bitten place be bathed, ſoked, or waſhed with the Snake being bruiſed in any water, it is of notable effect. Beſides, they are thought to be very ſoveraign againſt many infirmities, and therefore (as *Pliny* ſaith) they are dedicated to *Æſculapius*.

Avicen ſaith, that if any be troubled with the Leproſie, he is to be cured by taking a black Serpent, [illegible] being excoriated, he muſt be buryed ſo long till there breed Worms of him, and then he is to be taken forth of the earth and dryed, and ſo to be given to the leprous perſon for three dayes together, the quantity of one dram at every time, with ſyrup of Hony. *Pliny*, and with him agreeth *Cornelius Celſus*, affirmeth, that if any one do eat the middle part of Snakes or Serpents, caſting away the heads and tayls, they cure *Strumes*, which we in Engliſh call the Kings-evil. There is a diſeaſe called *Elephantia*, or *Elephantiaſis*, which is a kinde of Lepry proceeding of melancholy, choler, and flegme, exceedingly aduſt, and maketh the skin rough, of colour like an Elephant, with black wanniſh ſpots, and dry parched ſcales and ſcurf: This diſeaſe (I ſay) ſo grievous, and *Strumes*, are exceedingly holpen by eating often of Vipers and Serpents, as *John Taganet* in his firſt *Book Inſtitut. Chirurg.* hath aſſured us.

Pliny ſaith, that if you take out the right eye of a Serpent, and ſo binde it about any part of you, that it is of great force againſt the watering or dropping of the eyes, by means of a rheum iſſuing out thereat, if the Serpent be again let go alive. And ſo he ſaith, that a Serpents or Snakes heart, if either it be bitten or tyed to any part of you, that it is a preſent remedy for the tooth-ache: and he addeth further, that if any man do taſte of the Snakes heart, that he ſhall never after be hurt of any Serpent.

Paulus Venetus in his ſecond Book, Chap. 40. writeth, how that in the Province of *Caraiam*, there be Serpents of exceeding greatneſſe, which being killed, the inhabitants of the Countrey do pull out their gall, which they uſe to prize at a very high rate when they ſell any of it, for it is very medicinal; ſo that they which are bit of a mad Dog, if they take inwardly in any drink but the quantity of a penny weight of this gall, they are preſently cured. And if a woman be in her travail of childe-birth, if ſhe taſte never ſo little of this gall, the birth will be the more ſpeedy. So if any be troubled either with the Pyles, or Hemorhoids in the fundament, if that the place be anoynted with this gall, after a few dayes he is ſet free from his diſeaſe. *Hippocrates* giveth the ſeed of Serpents as a remedy againſt the ſuffocation of the belly.

Nicholaus Myrepſus preſcribeth this medicine againſt ſtrains and hardneſſes. Take a dead Serpent and put him into a new pot, luting it very well with *Gypſum*, then ſet it in a furnace that it may be burnt, after that, commixe the aſhes of a Serpent with an equall portion of the ſeeds of Fenugreek, ſo being wrought up with *Attick* Hony, and throughly digeſted, anoynt the place affected. And with him agreeth *Pliny*, who expreſly affirmeth, that the aſhes of Snakes and Serpents, being anoynted upon *Strumes*, either with Oyl or Waxe, is a ſingular medicine. And likewiſe to drink the aſhes of a Serpent that is burnt to powder in a new earthen pot, is very good: but it will be the more effectuall, if the Serpents be killed between two tracks or furrowes that are made with Cart-wheels. The aſhes of a Serpent burnt with ſalt in a pot, being put with Oyl of Roſes into the contrary ear, helpeth the tooth-ache.

An unguent againſt the Morphue, preſcribed by *Olaus Magnus*. Take of the aſhes of a Serpent burnt in a new pot, and well covered, two ounces, *Lytharge*, *Galbanum*, *Ammoniacum*, and *Opoponax*, diſſolved in Vinegar, three ounces, boyl them untill the Vinegar be conſumed, then ſtrain them, putting to them of Turpentine three ounces, Frankincenſe, Maſtick, and Sarcocolla three ounces, Saffron two ounces, working them with a Spathuler till they be cold. The powder of a burnt Serpent, is likewiſe good againſt Fiſtulaes. The fat of a Snake or Serpent mixt with Oyl, is good againſt *Strumes*, as *Pliny* ſaith. The fat of Snakes mixt with Verdegreaſe, healeth the parts about the eyes that have any rupture. To which agreeth the Poet, when he ſaith:

> *Anguibus ereptos adipes ærugine miſce,*
> *Hi poterant ruptas oculorum jungere partes.*

Which may be thus Engliſhed;

> *The ſat of Snakes mingled with Iron ruſt,*
> *The parts of eyes doth mend, which erſt were burſt.*

It is certain that barrenneſs cometh by means of that grievous torment and pain in childe-birth; and yet *Olympias* of *Thebes* is of opinion, that this is remedied with a Bulls gall, the fat of Serpents, and Verdigreaſe, with ſome Hony added to them, the place being therewith anointed before the coming together of both parts. When a Woman is not able to conceive by means of weakneſs in the retentive vertue, then there is no doubt, but there muſt needs grow ſome membrane in the bellies entrance, for which it is not amiſs to make a Peſſary of the fat of a Serpent, Verdigreaſe, and the fat of a Bull mixt together, &c. and to be applyed, *Hippocrates in lib. de Sterilibus*.

Geſner had a friend who ſignified to him by his Letters, that the fat of a Serpent was ſent to him from thoſe ſulphureous bathes which were neer unto *Cameriacum*, and was ſold at a very dear rate, namely, twelve pounds for every ounce, and ſometimes deerer. They uſe to mix it with the emplaiſter of *John de Vigo*, (that famous Chirurgeon) for all hardneſſes, and other privy and unſeen (though not unfelt) torments proceeding of the *Spaniſh* pox. They uſe it yet further, againſt leprous ſwellings and pimples, and to ſmooth and thin the skin. *Matthiolus* ſaith, that the fat of a black Serpent, is mixt to good purpoſe with thoſe Ointments that are prepared againſt the *French* or *Spaniſh* pox. And *Pliny* mixeth their fat with other convenient medicines, to cauſe hair to grow again. The ſuffmigation of an old Serpent, helpeth the monthly courſe. *Michael Aloiſius* ſaith, that Oyl of Serpents decocted with the flowers of Cowſlips, (ever remembring to gather and take that which ſwimmeth at the top) is ſingular to anoint podagrical perſons therewith.

Now followeth the preparing of Serpents: Take a Mountain Serpent, that ha[illegible] black back, and a white belly, and cut off his tail, even hard to the place where he ſendeth forth his excrements, and take away his head with the breadth of four fingers; then take the reſidue and ſqueeſe out the bloud into ſome veſſel, keeping it in a glaſs carefully, then fley him as you do an Eele, beginning from the upper and groſſer part, and hang the skin upon a ſtick and dry it, then divide it in the middle, and reſerve all diligently. You muſt waſh the fleſh and put it in a pot, boyling it in two parts of Wine, and being well and throughly boyled, you muſt ſeaſon the broth with good Spices, and Aromatical and Cordial powders, and ſo eat it. But if you have a minde to roſt it, it muſt be ſo roſted, as it may not be burnt, and yet that it may be brought into powder, and the powder thereof muſt be eaten together with other meat, becauſe of the loathing, and dreadful name, and conceit of a Serpent: for being thus burned, it preſerveth a Man from all fear of any future Lepry, and expelleth that which is preſent. It keepeth youth, cauſing a good colour above all other Medicines in the world; it cleareth the eye-ſight, gardeth ſurely from gray hairs, and keepeth from the Falling-ſickneſs. It purgeth the head from all infirmity, and being eaten (as before is ſaid) it expelleth ſcabbineſs, and the like infirmities with a great number of other diſeaſes. But yet ſuch a kinde of Serpent as before we have deſcribed, and not any other, being alſo eaten, freeth one from deafneſs.

You may alſo finely mince the heads and tails of Serpents, and feed therewith Chickens or Geeſe, being mingled with crums of Bread or Oates, and theſe Geeſe or Chickins being eaten, they help all to take away the Leproſie, and other foulneſs in Mans body. If you take the dryed skin, and lay it upon the tooth on the inner ſide, it will mitigate the pain thereof, ſpecially if it proceed from any hot cauſe. In like ſort, the ſame skin waſhed with ſpittle, and with a little piece of the tail laid upon any Impoſtume, or *Noli me tangere*, it will tame and maſter the pain, cauſing it to putrefie more eaſily and gently, and ſcarcely leaving behind any cicatrice or skar. And if a Woman being in extremity of pain in Childe-birth, do but tie or binde a piece of it on her belly, it will cauſe the birth immediately to come away. So the skin being boyled and eaten, performeth the ſame effects that the Serpent doth.

The bloud of a Serpent is more precious then *Balſamum*, and if you anoint your lips with a little of it, they will look paſſing red: and if the face be anointed therewith, it will receive no ſpot or fleck, but cauſeth to have an orient or beautifull hew. It repreſſeth all ſcabbineſs of the body, ſtinking in the teeth and gums, if they be therewith anointed. The fat of a Serpent, ſpeedily helpeth all redneſs, ſpots, and other infirmities of the eyes, and being anointed upon the eye-lids, it cleereth the eyes exceedingly. *Item*, put them into a glaſſed Pot, and fill the ſame with Butter in the Moneth of *May*, then lute it with well with Paſte, (that is, Meal well kneaded) ſo that nothing may evaporate, then ſet the Pot on the fire, and let it boil welnigh half a day; after this is done, ſtrain the butter through a cloth, and the remainder beat in a mortar, and ſtrain it again, and mix them together; then put them into water to cool, and ſo reſerve it in ſilver or golden boxes, that which is not evaporated, for the older, the better it is, and ſo much the better it will be, if you can keep it forty years. Let the ſick Patient, who is tooubled either with the Gowt, or the Palſie, but anoint himſelf often againſt the fire with this unguent, and without doubt he ſhall he freed, eſpecially if it be the Gout. All theſe preſcriptions, were taken from the writings of a certain nameleſs Author.

Hippocrates ſaith, that a Hart or Stag having eaten any Serpents, the worms in their guts are thereby expelled. And *Abſyrtus* hath the ſame words, that Harts by eating of a Serpent, do kill and expell worms from their guts. *Hierocles*, to a certain medicine which he prepared for the Strangulion in a Horſe, mingled the dung of a Lyzard, and *Stear herpetuou*, (that is, as I interpret it) the fat of a Serpent, the bloud of a Dove, &c. *Laurence Ruſius* ſaith, that it is good to give the fleſh and decoction of Serpents to madde, biting, and ſtriking Horſes. And that the fat of a Serpent, &c.

doth cure the puffing or ſwellings that ariſe in Horſes backs, which come by means of any compreſſion, or cloſe fitting and thruſting down.

Item, The unguent that droppeth from a Serpent, whileſt he is roſted on a ſpit, is highly commended for Fiſtulaes that are in Horſes hoofs. *Galen* and *Raſius* do counſell us to cut in pieces a Snake or Serpent, and to lay the fat thereof upon a ſtick, and to anoynt the outward parts of the hoof of any Horſe. Horſeleaches, live Mice, the green Lizard being burned, if they be given to a Hawk in her meat, they do cauſe a ſpeedy mutation of her feathers or wings; and the ſame effect have little River-fiſhes, finely beaten or ſtamped, if they be caſt upon any meat.

Item, the Serpent that is ſpeckled, and of divers and ſundry colours, of all others hath the leaſt poyſon; and in the *German* tongue it is called *Huſ*, (peradventure it is that which we call a Snake) if (I ſay) you take this Serpent, and boyl it with Wheat, and give the ſame Wheat to a Hen to feed upon, being mingled amongſt her meat and drink with the venom of a Serpent; a Hawk being fed with the fleſh of ſuch a Hen, forthwith caſteth her ſick feathers, and is freed from any other diſeaſe, if ſhe have any at all, as *Albertus* ſaith.

The old skin of an Adder or Snake, that he caſts off in the Spring time, if it be rubbed upon the eyes, cleareth the ſight, as *Pliny* ſaith. And *Galen* biddeth us, if any be troubled with bloud-ſhotten eys, to take the old caſt skin of Serpents, & being beaten with Sea water, to anoint them therewithal. And *Cardan* ſaith, that the caſt skin of a Snake, if the eyes be rubbed therewith every morning, that they will never be very dim of ſight, nor yet ever have any pin or web in them. Amongſt compoſitions that are made for the eyes, they uſe to mix the caſt skin of Snakes, as *Diocles* affirmeth; adding further, that the old age, or caſt skin of a Snake being boiled in Wine, is an excellent help for pain in the ears, if a little thereof be dropped into them. Boyl the caſt skin of a Snake with tops of Poppy, and drop a little thereof into the ears, if any be troubled with pain thereof, and this is an excellent remedy, as *Galen* in his third Book, *De Compoſit. medicam. ſ.c. loca*, hath taught us, having himſelf learned the ſame from *Archigenes*. The caſt skin of Serpents being burned in a pot, or on a hot burning tyle-ſhard, if it be mingled with Oyl of Roſes, and ſo dropt into the ears, is proved to be very effectual againſt all ſores, and ſickneſſes of the ears; but eſpecially againſt the *ſtinking ſavour* of them: or if they be purulent or full of matter, then to be mixt with with Vinegar. *Some* uſe to mingle Bulls gall therewith, and the juyce of the fleſh of Tortoiſes being boyled.

Marcellus ſaith, that if you take the gall of a Calf, with a like quantity of Vinegar, and mix them with the caſt skin of a Serpent, if then you dip a little Wooll into this medicine, and put it into the ear, that it helpeth very much, eſpecially if with a ſpunge being ſoked in warm-water, you firſt foment the ear. *Dioſcroides* and *Galen* do affirm, that the caſt skin of a Serpent, if it be boiled in Wine, doth cure the tooth-ach, if the pained place be waſhed therewith. But yet, in intolerable pains of the teeth, this is proved more ſingular. Take the caſt skin of a Serpent and burn it, then temper it with Oyl, till it come to the thickneſs or conſiſtence of hard Honey, and cover the tooth (being firſt ſcoured and cleanſed therewith, anointing all the neer places to the ſame, and put ſome of it into the hollowneſs of the tooth. And as *Archigenes* ſaith, if you lay the caſt skin of a Snake unto the teeth, not being burnt, they will all fall out. It cureth likewiſe the lowſie evill called *Phthiriaſis*. And *Galen* preſcribeth this caſt skin of Snakes or Serpents, for a remedy againſt the Colick, if it be put into a braſs pot with ſome Oyl, and ſo burnt to powder, if then it be diſſolved in Oyl, and the place therewith anointed, it is of great vertue. And if it be boiled in a Tin veſſel with ſome Oyl of Roſes, it remedieth the Bloudy-flix, and ſuch as be troubled with *Teneſmus*, which is, a great deſire in going to ſtool, and yet can do nothing.

Arnoldus de Villa nova, in his Breviary ſaith, that if you take the caſt skin of a Serpent, *Opopanax*, Myrrhe, *Galbanum*, *Caſtoreum*, yellow Sulphur, Madder, Pigeons or Hawkes dung, and incorporate them with the gall of a Cow, they being firſt pulveriſed, and the fume thereof received through a tunnel at the lower parts, it bringeth forth either the dead or living birth. *Cardan lib. de Subtil.* ſaith, that the caſt skin of a Serpent burned in the full of the Moon, and entring into the firſt degree of *Aries*; if the aſhes thereof be ſprinkled on the head, that thereby terrible and fearful dreams will follow. And if the face be anointed or waſhed therewith, being firſt laid in water, that it will cauſe one to look very fearfully and horribly: and if it be held under the tongue, it will make one very wiſe and eloquent: and if it be kept under the ſoals of the feet, it maketh one very gracious among Princes, Magiſtrates and Great men. And another ſaith, that this caſt off skin being pulveriſed when the Moon is in her increaſe, and in the firſt degree of *Aries*, if the powder thereof be ſet on the table, in a wooden or metalline diſh; if any poyſon be therein, it will be diſperſed and do no hurt, and yet the powder will remain ſafe and whole: and if given to a Leprous perſon, his diſeaſe will ſpread no further. And if you put a little of this powder into any wound, it will cure it within three days. I have ſeen (ſaith *Galen*) Goats that have eaten of the boughs and leaves of Tamarisk, and I have found them without a Spleen: alſo I have ſeen other Goats that have lickt up Serpents after they had caſt their skin; and I have proved, that after that, they have grown very white, and to have kept their young years a great while; ſo that it was long before they waxed old.

Of the way to drive away Serpents. Of their poyſon and bitings.

A certain and ſure way to cure thoſe who either have been poyſoned, invenomed, or bitten by them.

Suffumigations to expell Serpents.

TO expell and drive farre away any venomous Creatures, we uſe to make fumigations of the root of Lillies, Harts-horn, and the horns and hoofs of ſuch beaſts as be cloven footed: likewiſe of Bay-leaves and berries, Calamint, Water-creſſes, and the aſhes of the Pine-tree. The leaves of *Vitex*, *Bitumen*, *Caſtoreum*, *Melanthium*, Goats-horns, *Cardamomum*, *Galbanum*, *Propolis*, which may be called Bee-glew, the herb called Horſtrange, *Panax*, *Opopanax*, *Fleabane*, the ſhavings or ſcrapings of the Cypreſſe or Cedar-tree being ſteeped in Oyl, the Jet-ſtone, *Sagapinum*, the herb called *Poley*, Fern, and all other things that have a ſtrong or vehement ill ſavour, being caſt on the coals for a fumigation, do with their vapour chaſe away venomous beaſts. For whereas all venomous Creatures have the paſſages or pores of their bodies very ſtraight and narrow, they are very eaſily filled and ſtuffed, and are quickly ſtopped and ſuffocated by ſuch like ſents and ſmells.

Aetius in his thirteenth Book ſetteth down an excellent fume after this manner. Take of *Galbanum*, of *Sandracha*, Butter, and of Goats-fat, of every one alike much, make them into Pills, and uſe them for a fumigation. *Nicander* in *Theriacis* ſetteth down ſome for the ſame intentions, in theſe Verſes.

Cervinique gravi cornu nidore fugabis:
Et ſic cum accendens Gagatæ quandoque lapillum,
Quem conſumentis non exedit impetus ignis:
Multifidam filicem crepitantibus injice flammis,
Aut imas viridis libanotidos accipe fibras,
Tantundemque acris naſturci: his junge duobus
Æquali capreæ jam jactum pondere cornu,
Aut exiccantem nares cerebrumque nigellam,
Interdum Sulphur, fœdum quandoque Bitumen,
Ut ſumpta æquali pendantur ſingula parte.
Præterea graveolens candentibus indita prunis
Galbana, & ignitum faciens urticæ dolorem,
Dentatiſque cedrum maxillis ſectile lignum,
Omnibus inviſum Serpentibus eflat odorem.

In Engliſh thus;

By Hart-horn fume do Serpents ſlide away
When ſtone Gagates burning's put thereto:
Which heat of fire doth not clean deſtroy:
Then int' thoſe flames caſt many-leaved Fern alſo.
Of green hogs-fennel, take the loweſt branches,
Of Noſewort ſharp, ſo much: then to them joyn
A like proportion of Roes horn in weight and hantches,
Or elſe Nigella, drying noſe and brain,
Or Brimſtone, called filthy Sulphure,
So all be equall in weight and parts to cure.
Beſides, Galbanum rank, laid on burning coals,
Or nettles, which do cauſe a [illegible]ery pain,
And Cedar cut, all burn'd bout Serpents holes,
Them overcome, and make them flie amain.

The breath or vapour that iſſueth from Serpents is ſo peſtilent, that it killeth all young chickins, as *Columella* ſaith; and for preventing of this miſchief, it is good to burn Harts-horn, Womens hair, or *Galbanum*.

Vis & mirificos cautus perdiſcere odores,
Accenſis quibus arcetur teterrima Serpens,
Aut Styracem uras, aut atri vulturis alam,
Vel Nepetam aut frondem rigidæ ſtirpemque myricæ.

In Engliſh thus;

If thou wouldſt learn what odours for thy skill
Were beſt to ſcare the Serpent fierce away,
Burn Styrax, or black Vultures winged quill,
Or Neppe, green leaves, or ſtock of Tamariſk aſſay.

And *Pliny* and *Sextus* agreeing with him, do ſay; that if you burn the feathers of a Vultur, all Serpents will quickly avoid the ſtrong ſent thereof. There is a certain River in the Countreys of *Media* and *Paonia*, (as *Ariſtotle* teſtifieth) wherein there is a ſtone found, with whoſe fume Serpents are chaſed away: whoſe property is ſuch, that if any man caſt water on it, it will burn, and burning, if with any Fan you go about to make it to flame, it is ſtraightway quenched; and thus being extinguiſhed, it ſendeth forth a ſavour ſtronger then any Brimſtone. And to this ſubſcribeth *Nicander* in theſe words.

Vel tu Threicium flamma ſuccende lapillum,
Qui licet irriguis merſus tamen ardet in undis,
Expreſſaque ſtatim reſtinguitur unctus oliva,
Hanc quem fluctiſoni mittant de littore Ponti,
Qui, rude vulgus, ibi veſcentes carne magiſtri
Paſcendi pecoris ſua poſt armenta ſequuntur.

In Engliſh thus;

Or take the Thracian *ſtone, which ſet on fire*
Will burn in water, yet quenched is with Oyl.
This caſt from Pontus *ſhore, Heard-men deſire,*
The better to feed their flocks, and Serpents foyle.

The powder of a Cedar tree, putteth to flight venomous Serpents, as *Virgil* in the third of his *Georgicks* witneſſeth.

Diſce & odoratum ſtabulis accendere Cedrum,
Galbaneoque agitare graves nidore chelydros.

Which may be Engliſhed thus;

Learn how of Cedar, fire in thy folds to make,
And with Galbanums ſavour, put to flight the Snake.

Of ſuch things as are laid under us, that will expel Serpents,

Things that are ſtrewed or laid under us, both in our houſes and in high-wayes or beds, will likewiſe defend and keep us from venomous creatures: as for example; Southernwood, Dittander, Fleabane, Calamint, Gentian, *Haſtula regia*, Sage, Nightſhade, S. Johns wort, called of ſome *Fuga dæmonum*; Marjoram, Origan, wilde Rue, wilde Thyme, Bay-leaves, the ſhavings or tops of the Cypres or Cedar-tree, *Cardamomum*, Penyroyal, Wormwood, Mugwort, *Lyſimachia*, called in *Engliſh* Looſe-ſtriſe, and Roſemary. And if we cannot lie upon ſuch a bed;

Tunc juxta virides ſinuoſi vorticis alveos,
Amicolam nepetam per obeſas collige ripas.
Aut tibi caſta ſalix, pulchro quæ flore renidet,
Præbeat, inſtrata ſecurum fronde grabatum.
Sic quoque montanum polium, cujus grave ſpirans
Horret odor, nomenque ſuum qua debet echidnæ
Herba, & ab Euxina quæ fertur origanus urbe,
Quæcunque illarum decerpitur obvia, prodeſt.
Quin etiam multo per aprica cacumina flore
Ridens abrotonum, pecorique ingrata petitum
Pabula ſerpyllum, molli quod paſcitur horto.
Præſtat item exiguam circumluſtrare conyzam,
Urticeaſque comas, & ſpinoſas anagyros;
Sic & punicea ſectis ex arbore ramis,
Regaliſque amplis licet haſtæ frondibus uti.
Accipe item innocuo medicantem frigore ſtrumum,
Atque inviſa pigris Scyra prima æſtate bubulcis.
Nicander.

In Engliſh thus;

Then by the winding banks of crooked ſtreams
The Water-nep take up, which under-foot is tread,
Or the chaſt Oſier, whoſe fair flower hath beams
And leaves, ſecure from Serpents make thy bed.
The Mountain Poley, whoſe ſtrong ſmelling breath
The ſnakes abhor, & that which doth the hydra name,
The Origan which cometh from Euxinus earth,
Do profit all gainſt Serpent, if you bear the ſame.
The ſmiling Southernwood, which groweth on tops of hills,
Wilde Marjoram, to beaſts abhorred food,
Conyza ſtrewed, the haunt of Serpents ſpills,
The Nettle-crops, thorny Anagres ſtay their mood,
So do Pomegranate branches cut from tree;
And the broad leaves of Kingly Haſta uſe,
Strume, healing ſtrumes in harmleſs cold I ſee,
And Scyra, which in Summer Neatheards do refuſe.

In like ſort, to ſprinckle the place with water, where in *Sal Ammoniacum* is diſſolved, driveth away Serpents, as *Avicen* affirmeth.

Of Unguents and things born about us, from which Serpents will run away,

If any one anoint himſelf either with Dears-ſewet, the fat of Elephants or Lions, Serpents wil ſhun that perſon: and there be ſome, (as *Pliny* ſaith) that for fear of Serpents, do anoint their bodies with the ſeeds of Juniper. The juyce of the black Vine extracted from the root, and anointed on the body, performeth the like. For preſervation from Serpents, *Nicander* compoundeth this ointment. Take two Vipers about the end of Spring time, Deer-ſewet thirty drams, *Unguenti roſati* thirty ſix drams, crude Oyl of Olives as much, commix them with nine ounces of Wax, boil the Serpents till the fleſh fall from the bones, which you muſt caſt away becauſe they are venomous.

They that will yet be more aſſured, let them anoint their bodies with a thin cerate, made of Wax, Oyl of Roſes, a little *Galbanum*, ſome powder of Harts-horn, or elſe Cummin-ſeed of *Æthiopia*, &c, *Aetius*. If a man carry about him the tooth of a Stag, or thoſe ſmall bones which are found in his heart, he ſhall be ſecured from Serpents. If any one do bear about him wilde Bugloſs, or the root of the wilde Carot, he cannot be wounded of any Serpents. *Grevinus* is of the minde, that the Jet-ſtone, beſide other manifeſt qualities, hath yet this as peculiar to it ſelf, that he which carryeth it about with him, need neither to fear Serpents, nor any other poyſons,

Now for venomous beaſts, which are found in any houſes, the beſt way is to pour ſcalding water into their dens and lurking holes. And if any man (conſtrained by neceſſity) can finde no other place to ſleep, but ſuch a one as where Salamanders, the Spiders called *Phalangia*, or the like Serpents do abound, it is good to ſtop the holes and corners with Garlick beaten with water, or ſome of thoſe herbs which before we have ſpoken of. But yet men now adays hold it the ſafeſt courſe, to pour unquenched Lime ſprinkled with water into their dens and ſecret corners.

As they that are bitten by a mad Dog, ſo all ſuch perſons be wounded by venomous creatures, are in exceeding great danger, unleſs at the firſt they receive ſpeedy help and ſuccour; The ſafeſt way therefore to cure the poyſon, is by attractives, which draw from the more inward parts to the ſurface, and not to make too much poſt-haſt in cloſing up the wound. But if any one hath ſwallowed down, and taken inwar[illegible] any poyſon, the beſt way is (as *Dioſcorides* writeth) to vomit often; but if any be wounded by biting, then it is beſt to uſe ſcarification, and to faſten Cupping-glaſſes upon the place affected, to draw out the poyſon. Some uſe to ſuck the venom out, and others to cut off and diſmember the part. And this is to be obſerved, that if any one will undertake to ſuck out the venom, the party that attempteth it muſt not be faſting; and beſides, he muſt waſh his mouth with ſome Wine, and after that, holding a little Oyl in his mouth, to ſuck the parts, and to ſpit it preſently forth. And before Cupping-glaſſes be applyed, the part muſt firſt be fomented with a Spurge, then ſcarified deeply, that the venomous matter may the more ſpeedily be drawn out from the more inward parts; and yet cutting off the fleſh round in a compaſs, doth more good then any ſcarification.

But if the place will admit no ſection or inciſion, then cupping-glaſſes, with deep ſcarification, with much flame, muſt needs be uſed: for by attraction of the bloud, and other humors with windineſs, the poyſon it ſelf muſt of neceſſity follow. And *Aetius* in his 13. Book and tenth Chapter, counſelleth that the ſick perſon be kept from ſleep, and ſo ſit ſtill, until he finde ſome ceaſing or releaſing from his pain. Beſides, the member which is envenomed, ought to be be bound round about, that the poyſon may not too eaſily convey it ſelf, and penetrate into the more noble and principal parts, as the heart, liver, or brain. And in this manner having applyed your Ligature, you muſt by the advice of *Fumanellus*, ſet on your Cupping-glaſſes, and they being removed, apply the herb Calamint upon the place, and to give the patient ſome of the root of Mugwort in powder, or the beſt Treacle, and ſuch Cordials as do corroborate the heart; and for this intent, Bugloſs, Borage, Balm, and any of their flowers are much commended.

A Dove or Pigeon being divided in the midſt, and applyed hot to the place affected, attracteth poyſon to it ſelf, and healeth. And the ſame effect and vertue have other living creatures, as namely, Hens and Chickens, young Kids, Lambs and Pigs, if they be ſet to in the beginning, immediately after the Cupping-glaſſes be removed, for being as yet hot and warm, they draw out the poyſon, and mitigate pain. But if neither any one for love or money can be found, that will or dare ſuck out the venom, and that no Cupping-glaſs can be provided, then it is beſt that the patient do ſup of Mutton, Veal, or Gooſe broth, and to provoke vomiting. Yet they that will more effectually and ſpeedily give help, uſe to kill a Goat, and taking out the entrails, with the warm dung therein found, forthwith binde unto the place.

The learned Phyſitian *Matthiolus*, in his Comment upon *Dioſcorides*, ſaith; that to avoid the danger that cometh by ſucking out the venom, men now adays uſe to apply the fundament of ſome Cock or Hen, or other Birds after the feathers are puld off, to the wounded place, and the firſt dying, to apply another in the ſame order, and ſo another and another, until the whole venomous matter be clean driven away: whereof one may be certainly aſſured, if the laſt Hen or Bird ſo applyed, do not die. *Avicen* the *Arabian* ſaith, that the Phyſitians of *Egypt*, (in which Countrey there be infinite ſtore of venomous Beaſts) do haſten to burn the part with fire, as the ſafeſt and ſureſt remedy, when any one is this way endangered: For fire not only expelleth poyſons, but many other grievances. But the way how they uſed to burn with fire, was divers in theſe caſes: For ſometimes they uſed to ſear the place with a hot Iron, and other whiles with a cord or match being fired, and ſometimes ſcalding Oyl, and many other deviſes they had with burning medicaments, to finiſh this cure, as ſaith *Hieron. Mercurialis* in his firſt book *De Morb. Venenatis* writeth, and *John Tagault*, *Inſtitut. Chirurg. lib.* 2. ſaith, that the wound muſt firſt be ſeared with a hot Iron (if the place can endure it) or elſe ſome cauſtick and vehement corroding medicine muſt be uſed: for all ſuch wounds are for the moſt part deadly, and do bring preſent death, if ſpeedy remedy be not given: and therefore, according to *Hippocrates* counſel, to extream griefs, extream remedies muſt be applyed; ſo that ſometimes the ſafeſt way is to take or cut off that member, which hath either been bitten or wounded.

Neither am I ignorant (ſaith *Dioſcorides*) what the *Egyptians* do in theſe caſes: For when they reap their Corn in Harveſt time, they have ready at hand prepared, a pot with pitch in it, and a ſtring or band hanging at it; for at that time of the year they are moſt afraid of Serpents, which then chiefly do hide themſelves in dark holes, and caves of the earth, and under thick clots and turffs, for *Egypt* aboundeth with ſuch venomous and poyſonful creatures. When as therefore they have wounded either the foot or any other part, they that are preſent, do put the ſtring into the pot of pitch, and binding the place, they fall to cutting it with ſome inſtrument round in compaſs as the ſtring is tyed, after this done, they pour in of the pitch a ſufficient quantity, then untying and looſing the band, they laſtly anoynt it with Garlick and Onions.

A certain Countryman being bitten of a Serpent, perceived by and by his foot to ſwell, and by little and little the force of the poyſon to ſwell up higher, and nearer to the heart, the Caſtle of life: who being taught and inſtructed of an old woman, to bury his foot under the earth, and to cut a Hen into two parts to apply to the wound, and to the Hen ſhe wiſhed him to lay a live Frog, who continually ſucking the bloud from the Hens fleſh, might by this means at length attract and draw all the poyſon into it ſelf. So when he had held his foot a whole night covered and buryed under the earth, and finding no abatement, but rather an increaſe of his tormenting pain; at length by the adviſe and direction of a certain Noble Matron, he drank a good draught of *Theriaca* and Hony tempered in Ale, and ſo after a few hours fell on a great and continual vomiting, by which means he was perfectly freed from the pains of the upper parts of his body, his feet notwithſtanding continuing in their former ſwelling: which was alſo taken clean away, only by drinking the milk of a black Goat, ſo much in quantity at a time as one Egge-ſhell would contain, his foot in the mean ſpace being held or plunged in a ſufficient quantity of the ſame milk. From which there iſſued and ran a foul ſtinking glutinous and ſnivelly matter, and this he was admoniſhed to do by a certain Prieſt. But yet afterwards by chance, waſhing himſelf in a hot ſunny day in a certain River, and ſitting upon the bank, his feet hanging down into the water, and he falling faſt aſleep, (he knew not well how long time he ſo continued) at length awaking, he plainly perceived the water that was neer, on all ſides to be filthy, ſtained and polluted with much ſtinking matter, and as it were dreggy, refuſe and feculency, and from that time forwards, he remained well and luſty, and as ſound as a Bell.

Another time a Maid being bitten of a Serpent, laid preſently upon the wound ſome freſh Cheeſe made of the milk of a white Goat, and pouring or ſprinkling her foot with the milk of the ſame Goat, as a defenſative for that part, was by this means reſtored to her former health, as a certain learned man teſtified in his Letters written to *Geſner*.

Vegetius affirmeth, that if any living creature be bitten and wounded of venomous Beaſts, the place which is hurt, muſt firſt of all be ſuffumigated with Hens Egge-ſhels burnt, which firſt ought to be infuſed in Vinegar, with a little Harts-horn, or *Galbanum*. After fomentation, the place muſt be ſcarified, and the bloud muſt be let out, or elſe the place muſt be ſeared with a hot Iron, ſo far as the venom ſtretcheth. And this care muſt be had, that the Cauter be never applyed and laid either above the joynts, or ſinewy parts at any time, for the ſinews or joints being ſeared and burnt, there muſt of neceſſity a continual weakneſs and debility follow. Therefore great diligence muſt be uſed, that neither a little above, nor a little beneath the nerves and joynts, we lay any Cauterizing medicine; yea, although neceſſity biddeth us. But it is alſo requiſite that every one thus wounded, do gently and eaſily provoke ſweating with warm clothes caſt upon him, and afterwards to walk up and down, and to take Barley-meal in his meat, with ſome leaves of the Aſh-tree, and the white Vine added to it. And to the wound it is good to apply *Attick* Honey, or Cummin heated and parched, and ſo mixed with old Wine. Some uſe to mix new Hogs dung and *Attick* Hony tempered together with Wine, and ſo being warmed, to apply it as a Cataplaſm, adding to it ſome urine of a Man.

I have ſaid before, that young Chickens being diſſected or cut in pieces when they are warm, ought to be laid to the ſtinged part: and ſome there be that yeeld this reaſon why they ſhould be good for this purpoſe, becauſe (ſay they) there is a natural antipathy betwixt them, and venomous creatures. But this reaſon is reaſonleſs, and I think rather, that Hens or young Birds, being of a very hot nature and complexion, do eaſily concoct and digeſt notable poyſon, and their ſtomacks do conſume moſt dry and hard ſeeds, which the ſtrongeſt man living cannot do; which may eaſily alſo be proved by this argument, that many times by their ravening, they ſwallow down ſand and little ſtones, which they do eaſily diſſolve, and their crops very ſoon diſcharge, without any offence to them at all. And therefore the ſpirits of an invenomed perſon, being helped and refreſhed with the lively and ſtrong natural heat of theſe fowls thus applyed, and receiving and acquiring ſtrength from the part wounded, and ſo haſtily leaping out as it were, and quickly ſparkling forth, they do expel, ſhut and draw out the poyſon.

Now, after we have deſcribed the general method of curing this miſchevious evil, we will now deſcend to particular remedies, obſerving ever this rule and order, that firſt I will ſpeak of ſuch means as are topical, or ſuch as are outwardly applyed; and next of ſuch as be taken inwardly, and in both of them I will firſt deſcribe compound, before I ſpeak of ſimple medicaments. This one Leſſon you muſt carry with you, that many remedies are preſcribed and ſet down, which be not only good for the bitings of Serpents, but alſo for the bitings and ſtingings of all other venomous creatures, as namely, of Scorpions, Tarantulaes, Spiders, and the like. But yet, ſith theſe do properly reſpect Serpents, I will in this place ſet them down: beginning firſt (according to my promiſe) with ſuch compounded medicines, as are applyed outwardly for the help againſt the ſtinging of Serpents.

Theriaca Andromachi applyed Plaiſter-wiſe, is natable for this purpoſe. So there be other vehement ſtrong Plaiſters, whoſe vertue is to attract, expel, and diſcuſs venom, of which are thoſe which are made of Salt, Niter, Muſtard-ſeed, and Roſemary-ſeeds, Dittany, or Dittander, and the root of Chamæleon: and this that followeth is of ſingular vertue. Take of the ſcum, froth, or ſpume of Silver one pound, Ceruſe, and of the beſt Turpentine, of either as much as of the former, old Oyl three pounds, Wax ſix ounces, *Ammoniacum Thymiama*, four ounces, and of *Galbanum* as much: boyl the Ceruſe, the ſcum of Silver, and the Oyl ſo long, that they will not cleave unto the hands, then melting the other ingredients, incorporate them all together, and uſe them when need is for any bitings, &c.

There is an Emplaiſter fathered upon one *Epigonus*, and bearing his name: for this *Epigonus* being in cloſe Priſon, and condemned to die, for revealing this Medicine had his Pardon granted him, and was freely diſcharged, becauſe he therewith healed the daughter of the Emperour *Marcus*: for being ſorely wounded by a Serpent in her breaſt, and all other Phyſitians deſpairing of help, yet with this ſhe was recovered. It is alſo good for all new and old Ulcers, and for ſuch as are either bitten by any kinde of venomous creeping Worms and Serpents. Take of *Squamma æris*, (which is the ſcales and offal of Braſs, blown from it in melting) of *Ammoniacum*, *Aloes hepatica*, Verdigreaſe, of *Æs uſtum*, of Frankincenſe, *Sal ammoniacum*, *Ariſtolochia rotunda*, of every one half an ounce, Turnep-ſeeds three ſcruples, of the root of Dragon-wort half an ounce, ſeeds of Mugwort nine ſcruples, pure Wax five pound, of *Colophonia* one pound, old Oyl three ounces, ſharp Vinegar half a ſpoonful, Muſtard-ſeed three ſcruples, *Spodium* nine ſcruples, Stone-allum and *Opopanax*, of either half an ounce: Infuſe the metalline ingredients for three days ſpace in

Vinegar, and beat and powder them together, melting thoſe that are to be melted, then ſprinkle on thoſe that are dry ; and all of them being throughly wrought and made up, according to the form of an Emplaiſter, uſe them where neceſſity requireth.

Antonius Fumanellus, a late Phyſitian, preſcribeth an experimented, and (as he calleth it) a divine Oyl againſt any poyſon taken into the body, or the biting of any venomous Beaſts and Serpents, whether it be received inwardly by drinking it down, or anointed outwardly upon the body, and this is it that followeth. Take of Oyl of Olives one pound, the flowers and the leaves of the herb called S. *Johnſwort* bruiſed, boyl them for the ſpace of three hours, and ſtrain them, then boyl again other freſh flowers and leaves of the ſame herb and ſtrain them hard, and do ſo again the third time, then add to them of the roots of *Gentian* and *Tormentil*, of either one ounce, boyl and ſtrain them as you did before, and reſerve this Oyl for your uſe.

Andreas Matthiolus in his Commentaries upon *Dioſcorides*, doth exceedingly commend Oyl of Scorpions, becauſe being anointed upon the pulſes outwardly, it is (as he affirmeth) a ſingular remedy, not only againſt any poyſon taken inwardly into the body by the mouth, but for the bitings and ſtingings of any venomous creature whatſoever. The way to prepare and make it, he deſcribeth at large, in his Preface upon the ſixt Book of *Dioſcorides*, which I think needleſs here to deſcribe to avoid tediouſneſs ; therefore if any one be deſirous to know the compoſition of it, let him read *Matthiolus* in the place before cited. Unquenched Lime mixed with Hony and Oyl, and applyed to the place the thickneſs of a cerote, is good againſt the wounds that come by any venomous Beaſts biting.

Now I think it meet to ſet down thoſe ſimple medicaments which are outwardly to be applyed, either by laying on, or by anointing, againſt the ſting and venomous biting of Serpents. It is beſt firſt to foment the ſore place with hot Vinegar, wherein Catamint hath been boyled, and in ſtead of Vinegar, one may take Salt-water, or Southernwood, Maidenhair and Garlick, either in drink, meat, or to be uſed as an Ointment. The root of Aram, and Aſtrologe, and the leaves of the true Daffadil, and Oyl of Balm, is moſt effectual : alſo Bdellium, and the root either of the white or black Beet, is good againſt the bitings of Serpents.

Betony, Coleworts, eſpecially the wilde Coleworts, Calamint, the leaves of the wilde Fig-tree, Centory, Onions, Germander, Chamæleon, the herb called Fleabane, wilde Carrets, Rocket, Heath, Fennil, Figs, Winter Cherries, *Enula Campana*, Barly-meal, the Day-lilly, Hyſop, the Flower-deluce-root, Horehound, Balm, Water-creſſes, Baſil, Origan, Plantine, Leeks, Turneps, Madder, Rue, Verven, Muſtard-ſeed, Scabious, and Saint Johnſwort, all theſe plants are greatly praiſed amongſt the Writers of Phyſick, for the miſchiefs aboveſaid.

Pliny is of opinion, that the bowels or entrails of Serpents themſelves, being applyed, will ſurely cure the wounds of all other Serpents, although they ſeem incurable. A live Serpent being caught, if it be bruiſed, beaten and ſtamped in water, and the hurt place fomented therewith, will aſſuredly help and do much eaſe.

Quæ nocuit Serpens, fertur caput illius aptè
Vulneribus jungi, ſanat quæ ſauciat ipſa,
Ut Lariſſea curatus Telephus hoſta. *Qu. Serenus.*

Which may be thus thus Engliſhed ;

What Serpent hurteth, Men ſay by long experience,
His head applyed doth cure: for where the wound,
The help is alſo made, as in Telephus *ſenſe,*
Harm'd by Lariſſus *ſpear, by it was cured found.*

And *Guil. Varignana* ſaith, divide or cut a Serpent, and lay it upon the place, and it will mitigate the anguiſh and pain. The ſeed of *Thraſpi* and of *Titbimal* (which is a kinde of ſpurge) is greatly uſed for this ; *Aut Titbimallus atrox, vulnus quæ tuta perungat.* Some beſides theſe, do put the root of black Hellebore into the wound, becauſe it draweth out the poyſon, as I by mine own experience can teſtifie, ſaith *Matthiolus*.

There be alſo ſundry Antidotes and Preſervatives which are taken inwardly, that are very effectual againſt the bitings of Serpents and venomous beaſts, as namely that, which is called *Theriaca Andromachi*, or Mithridate, and the like compoſitions. *Galen* in his Book *De Theriaca ad Piſonem*, preferreth *Theriaca Andromachi* before all other medicines either ſimple or compound, for virulent wounds ; becauſe it performeth that effect for which it is miniſtred. For it was never as yet heard, that ever any one periſhed of any venomous hurt or biting, who without any delay forthwith drank this medicine : and if any man had taken it before he received any ſuch dangerous hurt, if he were ſet upon and aſſailed by any poyſonous creature, it hath not lightly been heard that he hath dyed of the ſame. There be many Antidotes deſcribed by the Ancients, which they ſet down to be admirable for theſe paſſions : As for example, that which *Avicen* tearmeth *Theriaca mirabilis*, whoſe compoſition is as followeth. Take of *Opium* and of Myrrhe, of either of them a dram, Pepper one dram and a half, the root of *Ariſtolochia longa* and *rotunda*, of each of them three drams, Wine two drams ; make them up with Hony and Rocket water, ſo much as is ſufficient for an Electuary : the quantity to give, is four ſcruples, relented in ſome fit and convenient decoction.

King *Antiochus*, ſurnamed *Magnus*, had a kinde of *Theriaca* which he uſed againſt all poyſons, which is deſcribed of *Pliny* in his 20. Book and laſt chapter in this wiſe. Take of wilde Thyme, *Opopanax*, and the herb called Gromel, of each a like much, two drams, *Trifolie* one dram, of the ſeeds of Dill, Fennil, Smallage, Aniſe, and *Ameos*, of every one alike ſix drams, of the meal of *Orobus* twelve drams: all theſe being powned and finely ſearſed, muſt with Wine a ſufficient quantity, be made into Trochiſces, whereof every one muſt weigh one dram, give thereof one dram at a time in a draught of Wine. There is another Antidote and preſervative againſt any poyſon, deſcribed by *Paulus Aegineta*, much like unto this, which is thus: Take of Bryony, *Opopanax*, of the root of *Iris Illirica*, and of the root of Roſemary, and of Ginger, of each of theſe three drams, of *Ariſtolochia* five drams, of the beſt Turpentine, of wilde Rue, of each three drams, of the meal of *Orobus* two drams; make them into Trochiſces with Wine, every one weighing one ſcruple and a half, or two ſcruples to be given in Wine.

Galen in his ſecond Book *De antidotis*, chapter 49. diſcourſeth of a certain *Theriacal* medicament, called *Zopyria antidotus*, (ſo taking the name of one *Zopyrus*) which was notable againſt all poyſons, and bitings of venomous creeping creatures. This *Zopyrus* in his Letters written unto *Mithridates*, ſollicited him very much, that he would make ſome experiment of his Antidote: which as he put him in minde he might eaſily do, by cauſing any one that was already condemned to die, to drink down ſome poyſon aforehand, and then to take the Antidote: or elſe to receive the Antidote, and after that to drink ſome poyſon. And put him in remembrance, to try it alſo in thoſe that were wounded any manner of way by Serpents, or thoſe that were hurt by Arrows, or Darts, anointed or poyſoned by any deſtroying venom: So all things being diſpatched according to his præmonition, the Man (notwithſtanding the ſtrength of the poyſon) was preſerved ſafe and ſound by this alexipharmatical medicine of *Zopyrus*.

Matthiolus in his Preface upon the ſixth Book of *Dioſcorides*, entreating of Antidotes and preſervatives from poyſon, ſaith; that at length, after long ſtudy and travail he had found out an Antidote whoſe vertue was wonderful and worthy admiration; and it is a certain quinteſſence extracted from many ſimples, which he ſetteth down in the ſame place. He ſaith it is of ſuch force and efficacie, that the quantity of four drams being taken either by it ſelf, or with the like quantity of ſome ſweet ſenting *Wine*, or elſe with ſome diſtilled water, which hath ſome natural property to ſtrengthen the heart; if that any perſon hath either been wounded or ſtrucken of any venomous living thing, and that the patients life be therewith in danger, ſo that he hath loſt the uſe of his tongue, ſeeing, and for the moſt part all his other ſenſes, yet for all that, by taking this his Quinteſſence, it will recover and raiſe him as it were out of a dead ſleep, from ſickneſs to health, to the great aſtoniſhment and admiration of the ſtanders by. They that deſire to know the compoſition of this rare preſervative, let them read it in the Author himſelf, for it is too long and tedious to deſcribe it at this time.

There be beſides theſe compounds, many ſimple medicines, which being taken inwardly, do perform the ſame effect, as namely the Thiſtle, whereupon *Serenus* hath theſe verſes following:

Carduus & nondum doctis fullonibus aptus,
Ex illo radix tepido potatur in amni.

That is to ſay;

The root of Teaſil young, for Fullers yet unfit,
Drunk in warm water, venom out doth ſpit.

That Thiſtle which *Qu. Serenus* here underſtandeth, is properly that plant which of the *Greeks* is called *Scolymos*. Yet it is taken ſometimes for other prickly plants of the ſame kinde, as for both the Chamæleons, *Dipſacos*, or *Labrum Veneris*, *Spina alba*, *Eryngium*, and ſome other. But *Dioſcorides* attributeth the chiefeſt vertue againſt poyſons, to the Thiſtle called *Chamæleon albus*, and to the Sea-thiſtle called *Eryngium marinum*, which ſome call Sea-hul, or Hulver: for in his third book and ninth chapter, entreating of *Chamæleon albus*, he ſaith thus; The root of it taken with Wine inwardly, is as good as Treacle againſt any venom: and in the 21 chapter of the ſame Book, *Eryngium*, is (ſaith he) taken to good purpoſe with ſome Wine, againſt the biting of venomous creatures, or any poyſon inwardly taken. And the ſame *Serenus* adſcribeth to the ſame vertue to the Harts curd or rennet, as followeth.

Cervino ex fœtu commixta coagula vino
Sumantur, quæ res membris agit atra venena.

In Engliſh thus;

Wine mixt with Rennet taken from a Hart,
So drunk, doth venom from the members part.

He meaneth a young Hart, being killed in the Dams belly, as *Pliny* affirmeth alſo the ſame in his 8. Book and 30. chapter in theſe words; The chiefeſt remedy againſt the biting of Serpents, is made of the *Coagulum* of a Fawn, kill'd and cut out of the belly of his Dam. *Coagulum*, is nothing elſe but that part in the belly which is uſed to thicken the Milk.

Proderit & caulem cum vino haurire ſambuci. *Qu. Serenus.*

Which may be Engliſhed thus;
In drink, the powder of an Elder-ſtalk,
Gainſt poiſon profiteth, as ſome men talk.

That vertue which *Serenus* here giveth to the ſtalk of Dwarf Elder, (for that is meant in this place) the ſame effect *Dioſcorides* attributeth to the root in his fourth Book, and *Pliny* to the leaves. The herb called Betony is excellent againſt theſe foreſaid affects, and by good reaſon, for the greateſt part of poyſons do kill through their exceſs of coldneſs, and therefore to overcome and reſiſt them, ſuch means are neceſſary, by which natural and lively heat is ſtirred up and quickned, and ſo the poyſon hindred from growing thick together, and from coagulation.

Again, all men do agree, that thoſe medicines are profitable which do extenuate, as all thoſe do which have a property to provoke urine, and Betony is of this quality; and therefore being taken with Wine, it muſt needs do good in venomous bitings, and that not only in the bitings of Men and Apes, but in Serpents alſo. Radiſh alſo hath the ſame quality, being taken with Vinegar and Water boiled together, or elſe outwardly applyed, as *Serenus* affirmeth.

Sive homo, ſeu ſimilis turpiſſima beſtia nobis
Vulnera dente dedit, virus ſimul intulit atrum,
Vetonicam ex duro prodeſt aſſumere Baccho.
Nec non & raphani cortex decocta medetur,
Si trita admorſis fuerit circumlita membris.

In Engliſh thus;

If Man, or Ape (a filthy beaſt moſt like to us)
By biting wound, and therein poyſon thruſt,
Then Betony in hard Wine ſteeped long,
Or rinde of Radiſh ſod as ſoft as pap,
Do heal, applyed to the members ſtung.

There be certain herbs and ſimples, as wilde Lettice, Vervin, the root called Rhubarb, Agarick, Oyl of Oliander, and the leaves of the ſame, the ſeeds of Peony, with a great number a little before deſcribed, that being taken either inwardly or outwardly in juyce or powder, do cure poyſon, yea though it be received by hurt from envenomed arrows, ſhafts, or other warlike engines and weapons: for the *Arabians*, *Indians*, the *Galls* (now tearmed French-men) and *Scythians*, were wont to poyſon their arrows, as *Paulus Oroſius* in his third Book teſtifieth of the *Indians*, where he writeth, how *Alexander* the Great, in his conquering and winning of a certain City, under the government of King *Ambira*, loſt the greateſt part there of his whole Army with envenomed darts and quarrels. And *Celſus* in his fifth Book ſaith, that the ancient *Galles* were wont to anoint their arrows with the juyce of white Hellebore, with which they they did great miſchief. *Pliny* affirmeth the ſame to be uſed of the *Scythian* Nation. The *Scythians* (ſaith he) do anoint their Arrow-heads with the corrupt, poyſonous, and filthy ſtained dreggy bloud of Vipers, and with Mans bloud mixed together: ſo that the wound ſeemeth to be incurable. And to this alludeth *Quintus Serenus.*

Cuſpide non quiſquam, longa neque cæde ſariſſa,
Fulmine non gladii, volucris nec felle ſagittæ,
Quàm cito Vipereo potis eſt affligier ictu:
Quare aptam dicamus opem, ſuccoſque manentes.

Which may be thus Engliſhed;
There is no Man with Spear or Launces point,
Sharp edge of Sword, or ſwift Arrows might,
To kill ſo ſoon, as Vipers force doth dint:
Then fit is the aid and means that it acquite.

There is a certain kinde of people to whom it is naturally given, either by touching or ſucking, to cure the wounding of venomous Serpents, called *Pſylli*, (a people of *Lybia*) and *Marſi*, people of *Italy*, bordering upon the *Samnites*, and *Æquiculania*, and thoſe that were called by the Ancient Writers *Ophiogenes*, which dwelt about *Helleſpont*, as both *Pliny*, *Ælianus*, and *Æneas Sylvius* do witneſs.

Callias in his tenth Book of the hiſtory which he wrote of *Agathocles* the *Syracuſan* ſaith, that if any man were bitten of a Serpent, if either a *Lybian* by birth, or any *Pſyllus*, whoſe body was accounted venom to Serpents, was either purpoſely ſent for, or came that way by chance, and ſaw the wound but indifferently, and not very ſore tormenting the Patient, that if he did lay but a little of his ſpittle upon the biting or ſtroke, that preſently the aking and pain would be mitigated. But if he found the ſick Patient in great and intolerable anguiſh and pain, he took this courſe in his curation, that firſt he would ſuck and draw up into his mouth a great deal of water, and firſt rinſe and waſh his own mouth therewith, and after this, pouring it all out of his own mouth into a cup, he would give it to the poor wounded perſon to ſup off. Laſtly, if the malignity and ſtrength of the venom had crept and ſpread it ſelf very far and deep into the body, ſo that there was danger of death, then would he ſtrip himſelf ſtark naked, and ſo lie and ſpread his body upon the naked body of the ſick perſon, and ſo by this way of touching, break the malice and quality of the poyſon, and give perfect cure to the man. For more confirmation hereof, *Nicander Colophonius*, is ſufficient aurhority, whoſe verſes I will here deſcribe.

Audivi Libycos Pſyllos, quos aſpera Syrtis
Serpentumque ferax patria alit populos,
Non ictu inflictum diro, morſuve venenum
Lædere: quin læſis ferre & opem reliquis,
Non vi radicum, proprio ſed corpore juncto.

Which is in Engliſh thus;

The people Pſylli *bred in* Lybia *Land*
Neer Syrtes, *where all Serpents do abound,*
Are never ſtung nor bitten by that band
Unto their harm, or any bodies wound:
But ſtraight one naked man anothers hurt doth heal,
No roots, but bodies vertue danger doth repeal.

Some of the *Greeks* have left in writing, that the Idolatrous Prieſts and Prelates of the God *Vulcan*, that dwelt in Iſle *Lemnos*, had a ſpecial vertue given them to cure thoſe who were wounded by Serpents: whereupon it is ſaid, that *Philoctetes* being wounded by a Serpent before the Altar of *Apollo*, went thither to be remedied of his hurt. *Cornelius Celſus* ſaith flatly, that the people called *Pſylli* had no ſuch peculiar gift in healing them that were hurt of Serpents, either by ſucking or touching the place, but being boldly adventurous, had preſumed thereby to attempt and do that, which others of leſs courage had no ſtomach to do: for whoſoever durſt be ſo confident as to follow their example, ſhould be himſelf out of danger, and aſſure the other ſafe and free from fear of further hurt.

Galen in his book *De Theriaca ad Piſonem*, manifeſtly ſheweth, that the *Marſi*, who lived in his days, had no ſuch ſpecial quality againſt the poyſon of Serpents, but that with their crafty dealing, and knaviſh tricks, they beguiled the common people. For ſaith he, thoſe Juglers and Deceivers do never hunt Vipers at any convenient time, but long after the prime of the year and Spring, wherein they caſt their skins, when as they are weak, and have loſt their ſtrength, and are very faint: then do they take them, and ſo by long uſe and continuance, teach them, and inure themſelves one to another, and bring it ſo to paſs, that they wil feed them with ſtrange and unaccuſtomed meats to their nature; yea they will permit them to taſt of fleſh, and conſtrain them to be continually gnawing and biting of the ſame, that by their ſo labouring and ſtriving, their poyſon may by little and little be ſpent, and purged out of their bellies. Beſides all this, they give them a kinde of bread made of milk and flour, that by this means the holes in their teeth may be ſtopped: and ſo by this laborious courſe of dieting them, they bring the matter ſo about, that their bitings are very weak, and do ſmall annoyance to any that they ſtrike at. So that the ſeers and lookers on, account it a thing exceeding common reaſon and nature, and blaze it abroad for a miracle.

Matthiolus alſo, a Phyſitian of late days, agreeth with him in this point, affirming expreſly, that theſe kinde of trumperies and crafty fetches are much put in practiſe in theſe times, by ſuch bold and impudent Quackſalvers, Mountebanks, and couſeners of plain Countrey people, who dare face it out, lie, faign and cog, that they are deſcended from the race and linage of Saint *Paul*, wherein they ſhew themſelves notorious lyers, &c. Thus far *Matthiolus*.

Serpents do ſometimes creep into the mouths of them that are faſt aſleep, whereupon a certain Poet ſaith;

Non mihi tunc libeat dorſo jacuiſſe per herbam.

Which may be Engliſhed thus;

Then would I not upon the graſs,
Lie on my back where Serpents paſs.

For if a man ſleep open mouthed, they ſlily convey themſelves in, and winde and roll them round in compaſs, ſo taking up their lodging in the ſtomach, and then is the poor wretched man miſerably and pitifully tormented; his life is more bitter then death, neither feeleth he any releaſe or mitigation of his pain, unleſs it be by feeding this his unwelcome gueſt in his gueſt-chamber, with good ſtore of milk, and ſuch other meats as Serpents beſt like of. The only remedy againſt this miſchief, is to eat good ſtore of Garlick, as *Eraſmus* in his *Dial. De Amicitia* ſaith. *Cardan* ſaith, how that it was reported for a certain, that a Viper entring into a Mans mouth being aſleep and gaping with his mouth, the venomous Worm was expelled only with burning of Leather, and ſo receiving the ſtinking fume at his mouth, the Viper not enduring it, he eſcaped with life. But of this more in our diſcourſe of the Viper.

A certain man called *Ciſſus*, being very devout in the ſervice, and much addicted to the worſhip of the God called *Serapis*, being treacherouſly wound in and intrapped, by the crafty wilineſs of a certain woman, which firſt he loved and afterward marryed, when by her means he had eaten ſome Serpents egges, he was miſerably vexed, and torn and rent with diſquiet and torment through all his body, ſo that he ſeemed to be in great hazard of preſent death. Whereupon, forthwith repairing and praying heartily to this his God, for his help and deliverance, he received anſwer, that he muſt go and buy a live Lamprey, and thruſt his hand into the veſſel or place where it was kept and preſerved; which he forthwith did, and the Lamprey caught faſt hold on his hand, biting hardly, and holding faſt by the teeth: and at length, when ſhe was pulled from her faſt hold, the ſickneſs and grievous torment of his body was plucked away, and he freely delivered from that threatning danger. Thus far *Ælianus*.

All this medicinal deſcription of Serpents was written by *Tho. Bonham* Doctor in Phyſick.

The Concluſion of this General Diſcourſe of SERPENTS.

HAving thus diſcourſed of the medicinal qualities in Serpents,and the remedies which Almighty GOD in nature hath provided againſt their venom,now for a concluſion,I will add ſome other natural uſes of them, and ſhut up all in Moralities, and in ſundry ways to take them.

Herodotus.
Mela.
Pliny.
Solinus.
Scaliger.
Boemus.
Æneas Syl.
Nicander.
Venetus.
P. Martyr.

There were certain *Amazons*, as *Pierius* noteth, that in their warlike preparations and Arms, did uſe the skins of Serpents. And to the intent that this may not ſeem ſtrange, the *Troglodytes* did eat Serpents and Lyzards, for they lived in Caves in ſtead of Houſes, and their voyce was not a ſignificant voyce, but a kinde of ſcrietching, like gnaſhing. And for theſe cauſes, Serpents are very much afraid of any one of this Nation. Likewiſe certain of the *Candeans* were called *Ophiophagi*, that is, Eaters of Serpents; and one part of the people of *Arabia* eat Snakes. But in *India*, *Ethiopia*, and an Iſland in the Ocean, found out by *Jambolus*,there are Serpents which are harmleſs, and their fleſh very ſweet and pleaſant to be eaten: So are there in *Macinum*, a Province of *Aſia*. In *Manzi* in the upper *India*, and *Caraia*, they ſell the fleſh of Serpents in open Markets. Theſe Serpents are called *Juanæ*, and the common people are forbidden to eat them, becauſe they are very delicate, even as Pheaſants, Partridges and Peacocks are in *France*. Yet is there but one way to dreſs them, which is, to roul them in Lard, and ſo to ſeethe them. For firſt they bowel them, then waſh them and fold them up together round, putting them into a pot no bigger then to receive their quantity; upon them they caſt Pepper with water,and ſo ſeethe them upon wood and coals that will not ſmoak. With this Lard there is made a broth ſweeter then any Nectar, which they uſe in many banquets of great account.

Florentinus.

But for the taking of Serpents, I will yet add one or two more experiments, wherein the Ancients revenged themſelves upon theſe irreconcileable enemies of Mankinde. They did uſe to ſet into the earth a deep pot, whereinto all venomous creatures would gather and hide themſelves, then came they ſuddenly and ſtopped the mouth of that veſſel, whereby they incloſed all that were taken, and ſo making a great fire, caſt the ſaid pot of venomous Serpents into the ſame, which conſumed them all. Otherwiſe they took a living Serpent,and digged in the earth a deep Well or pit ſo ſteep,as nothing at the bottom could climbe up to the top thereof, into this pit they would caſt this Serpent, and with her a brand of fire, by means whereof the encloſed Serpent would fall a hiſſing for her life,at the hearing whereof, her fellows of the ſame kinde, were thereby eaſily invited to come at her call to give her relief, (as we have ſhewed elſewhere) who finding the noiſe in the bottom of the pit, do ſlide down of their own accord, whereby they likewiſe intrap themſelves in the ſame pit of deſtruction.

Cælius Rho.
Ælianus.
Conſtantinus.
Pliny.
Textor.

But the Juglers or Quack-ſalvers take them by another courſe, for they have a ſtaffe ſlit at one end like a pair of tongs, thoſe ſtand open by a pin, now when they ſee a Serpent, Viper, Adder or Snake, they ſet them upon the neck neer the head, and pulling forth the pin, the Serpent is inevitably taken, and by them looſed into a prepared veſſel, in which they keep her, and give her meat. It is reported, that if a Serpent be ſtrucken with a Reed, ſhe ſtandeth ſtill at the firſt blow, as if ſhe were aſtoniſhed,and ſo gathereth herſelf together; but if ſhe be ſo ſtrucken the ſecond or third time, as one delivered from her aſtoniſhment and fear, ſhe recollecteth her wits and ſtrength, and ſlideth away. The like obſervation unto this, is that of the Ancients, that a Serpent cannot be drawn out of her den by the right hand, but by the left; for they ſay, if one lay hold on her tail by the right hand, ſhe will either ſlide farther into the earth from him, or elſe ſuffer herſelf to be pulled in pieces, never turning again, and therefore ſaith mine Author, *Non cedit trahenti, ſed elabitur fugiens, aut certe abrumpitur*, ſhe yeeldeth not to him that draweth her, but ſlideth away, flying from him, or elſe ſuffereth herſelf to be pulled in pieces in the combate.

Plutarch.
Pierius.

The ſundry Hieroglyphicks, ſtatues, figures,Images,and other moral obſervations about Serpents, are next here to be expreſſed,which the Ancients in their Temples, Shields, Banners, Theatres, and publique places had erected for their honours and dignity. And firſt of all, in the Temple of *Delphos*, near the Oracle, there was placed the Serpent which provoked *Apollo* to fight with him, wherein it was by him ſlain. And the *Hermopolitans*, did reſerve the Image of *Typhon*, in a Sea-horſe, whereupon ſat fighting a Hawk and a Serpent: by the Sea-horſe they ſignified the Monſter *Typhon*, by the other beaſts, as namely the Hawk and the Serpent, how by this principality and government, which he had gotten by violence, he troubled both himſelf and others.

Hercules had in his ſhield certain Serpents heads, pictured with theſe verſes.

Bis ſena hic videas, ſtridentibus effera flammis,
Colla venenato vultu maculoſa draconum.
Tum magis offenſo ſpirantia gutture virus,
Quam magis Alcides *effuſo ſanguine pugnat.*

Which may be Engliſhed thus;

Of Dragons heads twiſe ſix here maiſt thou ſee,
Raging amongſt the flames with poyſoned ſpotted face:
Caſting moſt venom forth when they enraged be,
As when Alcides *ſaw his bloud diſtil apace.*

And ſo *Virgil* ſaith of *Aventinus*.

———Clypeoque inſigne parentum
Centum angues, cinctamque gerit Serpentibus Hydram,

That is to ſay,

His ſhield an hundred Snakes, his Fathers creſt,
An Hydra in their compaſs is enteſt.

Oſcus which raigned among the *Tyrrhenians*, gave in his Standard and Coat of Arms a Serpent. Now the people *Oſci* (from whom it may be he was ſprung and derived) lived in *Campania* in *Italy*, as we have ſhewed already. Pierius.

In ancient time we read, that when hoſtility began to be compounded, they had Heralds and Embaſſadours of Peace, which they called *Caduceatores*, which carryed upright a certain Rod or Staffe called *Caduceus*; this Rod was very ſtraight, and at the either ſide were artificially joyned two Serpents figures, winding and crooking into each other as the manner of Serpents is. This Rod was ſo ſacred, that it was a great offence to violate or offer any injury unto it: for by the ſtraight Rod, was ſignified Perfect and Upright Reaſon or Underſtanding; by the two crooked Serpents at either ſide thereof, was figured the two Armies invading and aſſailing the Upright underſtanding, yet not prevailing: For this paſſed through and betwixt them without harm, by truce and entreaties of Peace. This Rod was therefore conſecrated to *Mercury*, the tails of the Serpents reaching down to the handle or half of the Rod, where they were adorned with with wings. *Alciatus* made theſe Emblematical verſes upon the *Caduceus*. Suidas.

Anguibus implicitis, geminus Caduceus alis,
Inter Amaltheæ cornua rectus adeſt.
Pollentes ſic mente viros, ſandique peritos
Judicat, ut rarum copia multa beet.

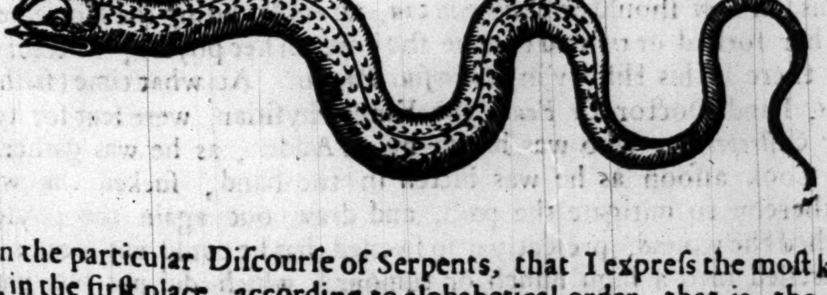
In Engliſh thus;

Twixt Ceres horns the Rod of Peace doth ſtand
Upright with winding Snakes, and double-winged tails,
To ſhew that mindes and tongues with Learnings brand,
Are bleſt with plenty in all wordly vails.

But having thus entred into the Hieroglyphical Emblems, if I ſhould ſay ſo much as I finde made ready, and ſquared for the architecture of this diſcourſe, I might loſe my ſelf in a voluminous world of matter, therefore I will but give the Reader a taſte hereof. By the Serpent in holy Writ, are many obſervative ſignifications; and firſt, that the Devil himſelf, which is *Malus Deus mali Mundi*, an evil God of an evil World, ſhould be tearmed and expreſſed by a Serpent. The cauſe ſaith *Pierius*, is *linguæ motatio*, the continual and never ceaſing motion of a Serpents tongue: and ſo the continual and ever-working perſwaſions of Diabolical tentations, and a true mixture and limb of this old Serpent, ſpeaketh otherwiſe with his tongue, then he thinketh with his heart. Therefore it is alſo ſaid, that a natural Serpent hath a cloven or twiſted tongue.

Clemens ſaith truly, that Serpents do alſo ſignifie Men given over to ſins, and fraudulent impoſtures or malices, *Onos hybriſtes ho akotactos, lukos agrios ho pleonecticos, kai ophis ho apatroon*, that is, There is an inſolent and an intemperate Aſs, there is a raging Wolf which is covetous, and there is a Serpent which is an Impoſtor and fraudulent. The ſame learned man ſaith, that Riches are like to a Serpent: For as when an ignorant Man thinketh to take a Serpent without harm by the tail, ſhe turneth back again and biteth him; but if he take her by the neck, ſhe cannot execute any part of her malice: even ſo when a wiſe Man hath the managing of riches, by vertue of his diſcretion he ſo charmeth them, that there is not in them any harm at all: but the fooliſh Man is mortally ſtung by his imprudent poſſeſſion and diſpenſation of them.

Of the ADDER.



IT falleth out in the particular Diſcourſe of Serpents, that I expreſs the moſt known Serpent to us in *England*, in the firſt place, according to alphabetical order, that is, the Adder. For although I am not ignorant, that there be which write it *Nadere*, of *Natrix*, which ſignifieth a water Snake, yet I cannot conſent unto them ſo readily, as to depart from the more vulgar received word of a whole Nation, becauſe of ſome likelyhood in the derivation from the *Latine*: For whereas *Nadere* may ſeem not improperly to be derived of *Natrix*, and *Natrix* of *Natando*, that is, ſwimming in the water, the firſt conjectural derivation is deſtroyed by the latter, becauſe this Serpent whereof we now intreat, haunteth not the waters, except for drink in her time of thirſt, and therefore I miſlike the writing of *Nadere* for *Adder*: and rather take that word to ſignifie a Land Snake. And yet if there be any good argument of derivation of *Engliſh* from *Latine*, I would not have the Reader think, but that the Adder may as well be derived *à terra*, from the earth which it uſeth, or of *ater*, black, which is the colour that it beareth, or from *atrox*, fierce, (for there is no Serpent of that quantity, more fierce, angry, or hurtful,) as well as *Nadere* from *Natrix*.

Iſidorus. The *Latines* do expreſs this kinde of Serpent by the word *Coluber*, whereof ſome give ſundry reaſons, either becauſe *colit umbras*, it hanteth and liveth in hedges and ſhadowy places, or elſe *à lubricis tractibus*, of his winding pace or path. *Gelenius* deriveth it of the *Greek* word *Koloboures*, which ſignifieth wanting a tail, becauſe the Snakes which are about houſes, are ſometimes found without tails, which have been ſtrook off by men: but this opinion hath no reaſon for the Adder, which is not domeſtical. Indeed I confeſs that *Pliny* uſeth *Coluber* for a general word for Serpents, when he ſaith *Coluber in aqua vivens*, which deceived *Theophraſtus* and *Gaza*, applying it to the water Serpent. And ſo *Eraſmus* and others, tranſlate *Ophis coluber*, that is, the general *Greek* word for a Serpent, an Adder. There is alſo *Colubra*, as in *Lucilius*, *Varro*, & *Nonius Marcellinus* appeareth; whereunto agree *Horace*, *Virgil*, and *Cornelius Celſus*. The *Italians* call this Serpent *Lo Scorzone*, *Scorſoni*, *Colubra*, *la Scorzonara*, *la Scorſona*. The *French*, *Colenure*; the *Spaniards*, *Culebra*, and at this day the *Grecians*, *Nerophis*. And thus much for the name; except I may adde theſe verſes of *Virgil* in his *Georgicks*.

Aut tectò aſſuetus Coluber ſuccedere & umbræ
Peſtis acerba boum, pecorique aſpergere virus
Fovit humum. Cape ſaxa manu, cape robora paſtor.
Tollentemque minas, & ſibila colla tumentem
Dejice, jamque fuga tumidum caput abdidit altè
Cum medii nexus, extremæque agmina caudæ
Solvuntur, turdoſque trahit ſinus ultimus orbes.

In Engliſh thus;

Or when the Adder uſing houſe or ſhade
Bred in the earth, the bane of Sheep and Neat,
Then ſhepheard take both ſtone in hand and blade,
To quaſh his ſwelling neck and hiſſing threat.
Or when his fearful head he puts full deep in earth
To fly thy wrath, him ſunder in the midſt,
Or cut his tail, if no part elſe appeareth,
For that will ſtay his pace, while on't thou treadeſt.

This is uſual to call a Water-adder, a Houſe-adder, a Land-ſnake, and ſuch other, but catachreſtically confounding one kinde with another. And thus much for the name of this Serpent. The parts differ not from the general deſcription before recited, it is long like an Eele, and hath many Epithets, as *virides colubri*, green Adders, long, rough, venomous, divers coloured, ſwelling, ſliding, winding, blew, terrible, ſecret, hurtful, *Meduſean*, *Cyniphian*, *Gorgonean Lybiſſine*, biting, ſpotted, wreathing, black, bending, heavy, ſcaly, and divers ſuch other, as the Grammarians have obſerved. But concerning the colour hereof, it is moſt commonly black on the back, ſometimes greeniſh and yellowiſh. The ſcales of it are more ſharp then of the Snake, and therefore the *Egyptians* were wont to ſay of the *Thebane* Adders, that they had a certain appearance of horns upon them, as we ſhall ſhew more at large in the ſtory of *Ceraſtes*, or the horned Serpent.

Victorius ſpeaking of the great worms which are bred in Mens bellies, doth call them *Cæcas Colubras*, blinde Adders; but otherwiſe, the Adder which is proper to the earth, is not blinde, but ſeeth as ſharply as any other Serpent either by day or by night. They are hotter then the Snakes, and therefore live more in the ſhadows, and lye for the moſt part round, folded up together like a rope, as the Poet noteth ſaying;

Hirtus & ut coluber, nodoſo gramine tectus
Ventre cubat flexo, ſemper collectus in orbem.

In Engliſh thus;

As the rough Adder in knotty graſs is covered,
Lyeth on her belly, and round in circle gathered.

They are a crafty and ſubtil venomous Beaſt, biting ſuddenly them that paſs by them, whereupon *Jacob* ſaid that his ſon *Dan* ſhould be *Coluber in via*, an Adder biting the Horſe-heels. When ſhe hath bitten, with her forked or twiſted tongue ſhe infuſeth her poyſon, whereof and the remedy ſerving thereunto, there is this Hiſtory in *Ambroſius Pareus*. At what time (ſaith he) *Charles* the ninth lay at *Melines*, I and Doctor *Le Feure* the Kings Phyſitian, were ſent for to cure a certain Cook of the Lady *Caſtroperſees*, who was bitten by an Adder, as he was gathering wilde Hops in a hedge. The Cook aſſoon as he was bitten in the hand, ſucked the wound with his mouth, thinking thereby to mitigate the pain, and draw out again the poyſon; but aſſoon as his tongue touched the wound, preſently it ſo ſwelled that he could not ſpeak: and beſides his arm or ſhoulder ſwelled into a high bunch or tumour, which did put him unto painful torments, inſomuch that he ſwounded twice in our preſence; his face and colour changed as though he would preſently die: Whereat we all deſpaired to cure him, yet did not forſake him, nor left to try ſome means to eaſe his torments. Then we waſhed his tongue with Triacle, mixed with an equal proportion of white Wine and *Aqua vitæ*; then alſo I cauſed the arm to be ſcarified all over, and launced the place where the Adder had bitten him, out of which flowed abundance of corrupt mattery bloud. Then we waſhed the wound with Triacle and Mithridate, in *Aqua vitæ*; ſo we cauſed him to be laid into warm bed, there to ſweat, and commanded to keep him awake, which was done accordingly; and ſo the next day the ſwelling was abated, and the malignant ſymptomes were all evacuated: ſo we gave order to keep the wound or launced place open, and afterward the Cook began to be well again. This one example in ſtead of many, I thought good to inſert into this place, that hereby the general cure may be learned and followed.

It agreeth with all other Serpents in the changing or putting off the skin; for after that by faſting it hath made his fleſh low and abated, then by ſliding through a narrow paſſage, whereof *Virgil* thus writeth.

Qualis ubi in lucem coluber, mala gramina paſtus,
Lubrica convolvit ſublato pectore terga
Frigida ſub terra, tumidum quem bruma tegebat:
Arduus ad ſolem & linguis micat orat triſulcis,
Nunc poſitis novus exuviis, nitiduſque juventa.

Which may be Engliſhed thus;

Even as the Adder in the Spring ill fed and lean
Moveth her winding limbs, holding up her breaſt,
Whom Winters cold whiles hid earth made ſwell,
In Sun ſhine with her treble tongue expreſt
Doth lick, and make to ſhine her skin, neat youth
Renueth, and caſts old coat, for heat enſueth.

S. *Jerom* ſaith, that when the Adder is thirſty and goeth to drink, ſhe firſt of all at the water ſide caſteth up her venom, leſt that by drinking it deſcend into her bowels, and ſo deſtroy herſelf, but after that ſhe hath drunk, ſhe licketh it up again; even as a Souldier re-armed after he was diſarmed. *Herodotus.* The voyce of this Serpent is hiſſing, although it be very ſeldom heard. And it is ſaid, that when *Cræſus* undertook to wage war with *Cyrus*, the Suburbs of *Sardis* were all filled with Adders, which were devoured afterward by Horſes in the paſtures. Whereat the King and people were not a little moved: But the Prieſts, after conſultation with the Oracle, told them that it ſignified, how ſtrangers ſhould devour the people of that City; becauſe that Adders were bred in thoſe coaſts, therefore they took them to ſignifie natural Inhabitants, and becauſe Horſes came from other Countries, therefore ſtrangers, (as *Cyrus* and his Souldiers) ſhould be thereby ſignified. And this is to be noted, that the enemies of this Serpent, are the ſame that are common to other, and the Hart above all other beaſts of the earth. Yet this Serpent (ſaith S. *Ambroſe*) will kill a Lion and run away from a Hart.

¶ The Medicines ariſing out of this Beaſt, are briefly theſe; The water wherein an Adder is *Pliny.* preſerved alive, is a remedy againſt the poyſon of a Toad: Alſo Adders or Vipers included in a pot *Silvius.* with the ſcrapings of Vines, and therein burnt to aſhes, do help the Wens or Kings-evill. And *Pliny* alſo affirmeth, that if a Man which hunteth Crocodils, bear about him any part of the fat of an Adder, or the gall mixed with the herb *Potamigiton*, he cannot be hurt by that Beaſt.

Serpents and Adders, eſpecially deaf Adders, ſignifie unrepentant wicked men, and alſo diſcord, as *Virgil.* the Poet deſcribeth it, when *Alecto* ſent a Serpent, Snake or Adder, to move contention in the family of *Amata. Libro 7. Æneid.* And thus much for the Adder.

Of the AMMODYTE.

THis Serpent I call after the *Greek* name, *Ammodytes*, an *Ammodyte*. It is alſo found to be called *Ammodyta*, and *Conchrias*, or rather *Centrias*, or *Centrites*, becauſe of the hardneſs of their tails, which are alſo cloven on the upper ſide. The *Italians* call it *Aſpido del corno*, becauſe it hath upon the upper chap a hard Wart like a horn. The head of this Serpent is longer and greater then a Vipers head, and her chaps wider; beſides the late expreſſed difference upon the upper lip: and yet it may well be tearmed a kinde of Viper. It is *Immanis fera*, a fierce wilde Beaſt, in length not above a cubit, having divers black ſpots upon the skin, and certain appearances of ſtrakes or ſmall lines upon the back. The colour of the other parts is ever like the ſand wherein it keepeth and *Olaus Mag.* maketh abode, according to theſe verſes of *Lucan*. *Avicenna.*

Concolor exuſtis, atque indiſcretus arenis
Ammodytes.———

In Engliſh thus;

The Ammodyte, indiſcreet on the Land,
Doth hold the colour of the burning ſand.

The Countries moſt of all annoyed with theſe Serpents, are *Lybia*, *Italy*, and *Illyria*, eſpecially about *Gortinium*, and the Mountains of *Lampidia*. Their harms are not inferiour to the ſtinging and poyſon of Aſps, for *Matthiolus* writeth, that he hath known ſome to die thereof within three hours after the wound received. And if they do not die within ſhort time, then doth the bloud iſſue forth in abundant manner out of the hurt, and the wound ſwelleth. Afterward, all is turned into matter, and then followeth dulneſs in the head, and diſtraction in the minde; they live long which endure it three days, and it was never known that any lived above ſeven days: this alſo being obſerved, that thoſe that be hurt by a female do die ſooneſt. For together with their biting, they infuſe a vehement pain, which cauſeth ſwelling, and the ſore to run.

I finde the cure hereof in *Aetius* to be thus, firſt of all Triacle muſt be given to the ſick perſon to drink, and alſo laid upon the wound, alſo drawing or attractive Plaiſters, and ſuch Poulteſſes which are fit for running Ulcers. But firſt before the Plaiſters, ſcarifie all the places about the hurt, and binde the upper parts hard, then launce the ſore a little with a Pen-knife, and let him drink ſweet water with Rungwort, Gourds, *Caſtoreum*, and *Caſſia*. *Avicen* preſcribeth in the cure of theſe Serpents venom *Caſtoreum*, Cinamon, the root of Centory, of each two ounces with Wine, and the root of long Hartwort, of *Aſſoaſier*, the juyce of the root *Gentian*. And for emplaiſter, Hony ſod and dryed, and ſo pounded, the roots of Pomgranates, and Centory, the ſeed of Flax, and Lettuce, and wilde Rue: And ſo I conclude with Doctor *Geſner*, *Percuſſus ab Ammodyte feſtinet ad remedium, ſine quo nemo affugere*, He which is hurt by an *Ammodyte*, let him make haſt for a remedy, without which never Man eſcaped death.

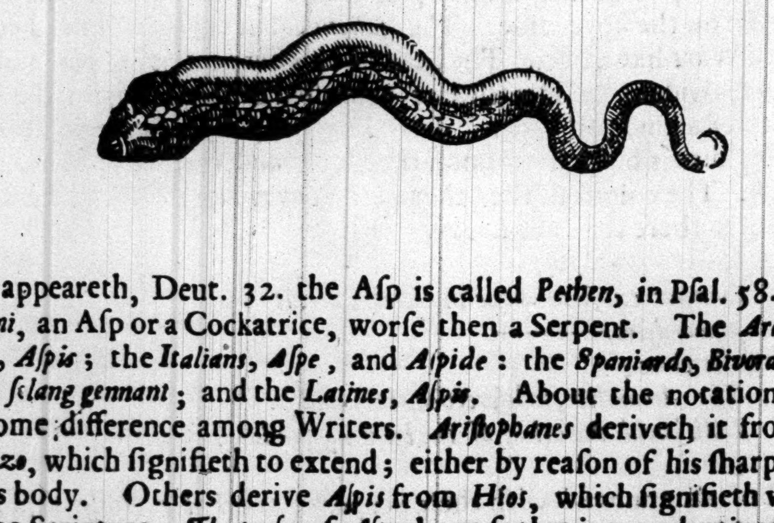
Of the ARGES *and* ARGOLÆ.

Galen.
Hippocrates.

THere is mention made in *Galen* and *Hippocrates*, of a Serpent called *Arges*: Now *Arges* ſignifieth in *Greek* white, ſwift, idle, ill mannered: of this Serpent *Hippocrates* telleth this ſtory. There was (ſaith he) a young man drunk, which lay aſleep upon his back in a certain houſe, gaping: Into this Mans mouth entered a Serpent called *Argoes*, the young Man perceiving it in his mouth, ſtrived to ſpeak and cry, but could not, and ſo ſuddenly gnaſhing his teeth, devoured and ſwallowed down the Serpent: After which he was put to intolerable pains, his hands ſtretching and quivering like as a Mans that is hanged or ſtrangled, and in this ſort he caſt himſelf up and down and dyed. It ſeemeth therefore that this Serpent hath his name from the ſudden deſtructiou he bringeth to the creatures it ſmiteth, and therefore in ancient time we read that *Mercury* was called *Argiphon*, for killing of Serpents.

The *Argole* are only mentioned by *Suidas*, for he ſaith, that *Alexander* brought them to *Alexdria* from *Argos*, and caſt them into the River to expel and devour the Aſpes: where they continued a long time, till the bones of the Prophet *Jeremy* were brought out of *Egypt* unto *Alexandria*, which ſlew them, (as the ſame Author writeth:) And thus much of theſe two kindes of Serpents.

Of ASPES.



IN *Hebrew* as appeareth, Deut. 32. the Aſp is called *Pethen*, in Pſal. 58. *Akſchub*, in Iſa. 59. & Jer. 8. *Zipheoni*, an Aſp or a Cockatrice, worſe then a Serpent. The *Arabians*, *Haſſos*, and *Haſcos*; the *Greeks*, *Aſpis*; the *Italians*, *Aſpe*, and *Aſpide*: the *Spaniards*, *Bivora*; the *French*, *Un aſpic*; the *Germans*, *Ein ſclang gennant*; and the *Latines*, *Aſpis*. About the notation or derivation of this word, there is ſome difference among Writers. *Ariſtophanes* deriveth it from *Alpha*, an intenſive Particle, and *Spizo*, which ſignifieth to extend; either by reaſon of his ſharp ſhrill hiſſing, or for the length of his body. Others derive *Aſpis* from *Hios*, which ſignifieth venom or poyſon, and therefore ſaith the Scripture; *The poyſon of Aſps*, becauſe that is a predominant poyſon. The *Latines* call it *Aſpis*, *quòd venenum aſpergit morſu*, becauſe it ſprinkleth abroad his poyſon when it biteth. Beſides we read of *Aſpis* a Buckler, an Iſland in the *Lycian* Sea, a Mountain in *Africk*, and there is a faſhion of camping Souldiers in the field called *Aſpides*.

The Epithets declaring the nature of this peſtiferous Serpent, are *Iocheeira*, rejoycing in poyſon, *Elikoeſſa*, winding, *Lichmeres*, putting out the tongue, *Smerdalee*, fearfull, *Phoineſſa* cruelly killing. Likewiſe in *Latine*, dry, ſleeping, drouſie, deadly, ſwelling, and *Aſpis Pharia*, a *Pharian* Aſp, ſo called of the Iſland *Pharus*, where they abound. It is ſaid that the Kings of *Egypt* did wear the Pictures of Aſps in their Crowns; whereby they ſignified the invincible power of principality in this Creature, whoſe wounds cannot eaſily be cured: And the Prieſts of *Egypt* and *Æthiopia* did likewiſe wear very long Caps, having toward their top a thing like a Navel, about which are the forms of winding Aſps, to ſignifie to the people, that thoſe which reſiſt GOD and Kings, ſhall periſh by unreſiſtible violence. Likewiſe by an Aſp ſtopping his ear, was figured and underſtood a Rebel, obeying no lawes or degrees of the Higher power: But let us leave this diſcourſe of moralities, and come neerer to the naturall deſcription of Aſps. There are many kindes of Aſps after the *Egyptian* diviſion, for one kinde is called *Aſpis ſicca*, a dry Aſp. This is the longeſt of all other kindes, and it hath eyes flaming like fire, or burning coals; another kinde is called *Aſilus*, which doth not only kill by biting, but alſo with ſpitting, which it ſendeth forth while it ſetteth his teeth hard together, and lifteth up the head. Another kinde is called *Irundo*, becauſe of the ſimilitude it keepeth with Swallowes, for on the back it is black, and on the belly white, like as is a Swallow. We read alſo in *Albertus* of *Aſpis Hipnalis*, and *Hippupex*, but it may be that both theſe names ſignifie but one kinde. This *Hypnale* killeth by ſleeping, for after that the wound is given, the Patient falleth into a deep and ſweet ſleep, wherein it dyeth: and therefore *Leonicenus* ſaith; *Illam fuiſſe, ex cujus veneno ſibi Cleopatram ſuavem mortem conſcivit*, that it was the ſame which *Cleopatra* bought to bring upon her ſelf a ſweet and eaſie death. There is alſo an Aſp called *Athaes*, which is of divers colours: But I do conſider that all the kindes may well be reduced to three, that is, *Ptyas*, *Cherſea*, and *Chelidonia*; *Ptyas* hurteth by poyſoning mens eyes, by ſpitting forth venom, *Cherſea* liveth on the land, and *Chelidonia* in the waters.

Cal. Rhod.
Diodorus.
Pierius.
Ælianus.
Aetius.
Ægineta.
Pliny.

The Aſp is a ſmall Serpent, like to a land Snake, but yet of a broader back, and except in this differeth not much from the Snake, their necks ſwell above meaſure, and if they hurt in that paſſion, there can be no remedy, for the ſtroak of their eyes are exceeding red and flaming, and there are two pieces of fleſh like a hard skin which grow out of their foreheads, according to theſe Verſes of *Nicander*;

> *Præterea geminæ calli inſtar fronte carunclæ*
> *Hærent, ſanguineis ſcintillant lumina flammis.*

That is to ſay;

> *As hard as Brawn two bunches in their face*
> *Do grow, and flaming bloudy eyes their grace.*

And the dry Aſp, ſo called becauſe it liveth in mid-lands, farre from any water, hath a vehement ſtrong ſight, and theſe eyes both in one and other are placed in the Temples of their head. Their teeth are exceeding long, and grow out of their mouth like a Boars, and through two of the longeſt are little hollowes, out of which he expreſſeth his poyſon: They are alſo covered with thin and tender skins, which ſlide up when the Serpent biteth, and ſo ſuffer the poyſon to come out of the holes, afterward they return to their place again. Of all which thus writeth *Nicander*;

> *Quatuor huic intra Maxillæ concava dentes,*
> *Radices fixere ſuas, quas juncta quibuſdam*
> *Pelliculis tunica obducit, triſte unde venenum*
> *Effundit, ſi forte ſuo ſe approximet hoſti.*

In Engliſh thus;

> *Within the hollow of their cheeks fiery teeth are ſeen*
> *Faſt rooted, which a coat of skin doth joyn and over-hide,*
> *From whence ſad venum iſſueth forth when ſhe is keen,*
> *If that her ſo ſhe chance to touch as ſhe doth glide.*

The ſcales of the Aſp are hard and dry, and red, above all other venomous Beaſts, and by reaſon of her exceeding drought, ſhe is alſo accounted deaf. About their quantity here is ſome difference among Writers: For *Ælianus* ſaith, that they have been found of two cubits length, and their other parts anſwerable: Again, the *Egyptians* affirm them to be four cubits long: but both theſe may ſtand together, for if *Ælianus* ſay true, then the *Egyptians* are not deceived, becauſe the greater number containeth the leſſer. The Aſp *Ptyas* is about two cubits long: the *Cherſean* Aſps of the earth, grow to the length of five cubits; but the *Chelidonian* not above one, and this is noted, that the ſhorter Aſp killeth ſooneſt, and the long more ſlowly: one being a pace, and another a fathom in length. *Nicander* writeth thus;

Ætius.
Avicenna.
Arnoldus.
Srabo.

> *Tam proceram extenſa quærunt quom brachia duci,*
> *Tantaque craſſities eſt, quantum miſſile telum,*
> *Quod faciens haſtas docta faber expolit arte.*

Which may be thus Engliſhed;

As wide as arms in force out-ſtretched,
So is the Aſp in length,
And broad even as a caſting Dart,
Made by a wiſe Smiths ſtrength.

Aetius.
Olaus.

The colour of Aſps is alſo various and divers, for the *Irundo* Aſp, that is, the *Chelidonian*, reſembleth the Swallow; the *Ptyas* or ſpitting Aſp reſembleth an Aſh colour, flaming like Gold, and ſomewhat greeniſh: the *Cherſean* Aſp of an Aſh-colour or green, but this later is more rare, and *Pierius* ſaith, that he ſaw a yellow Aſp neer *Bellun*: Of theſe colours writeth *Nicander*;

Squalidus interdum color albet, ſæpe virenti,
Cum maculis ſæpe eſt cineres imitante figura,
Nonnunquam ardenti veluti ſuccenditur igne,
Idque nigra Aethiopum ſub terra, quale refuſus
Nilus ſæpe lutum, vicinum in Nerea volvit.

Thus overtherwiſe;

Their colour whitiſh pale, and ſometime lively green,
And ſpots which do the Aſh reſemble,
Some fiery red: in Æthiop black Aſps are ſeen,
And ſome again like to Nerean mud,
Caſt up by flowing of the Nilus flud,

Am. Pareus.
Bellonius.

The Countreys which breed Aſps, are not only the Regions of *Africk*, and the Confines of *Nilus*, but alſo in the Northern parts of the World (as writeth *Olaus Magnus*) are many Aſps found: like as there are many other Serpents found, although their venom or poyſon be much more weak then in *Africa*; yet he ſaith, that their poyſon will kill a man within three or four hours without remedy. In *Spain* alſo there are Aſps, but none in *France*, although the common people do ſtyle a certain creeping thing by that name. *Lucan* thinketh that the Originall of all came from *Africa*, and therefore concludeth, that Merchants for gain have tranſported them into *Europe*, ſaying;

Ipſa coloris egens, gelidum non tranſit in orbem
Sponte ſua, Niloque tenus metitur arenas.
Sed quis erit nobis lucri pudor? Inde petuntur,
Huc Lybicæ mortes & fecimus Aſpida merces.

In Engliſh thus;

The Aſp into cold Regions not willingly doth go,
But neer the banks of Nilus warm, doth play upon the ſands.
Oh what a ſhame, of wicked gain muſt we then undergo,
Which Lybian deaths and Aſpiſh wares have brought into our lands?

Ælianus.
Gillius.

Their abode is for the moſt part in dryeſt ſoyls, except the *Chelidonian* or Water Aſp, which live in the banks of *Nilus* all the year long, as in a houſe and ſafe Caſtle, but when they perceive that the water will overflow, they forſake the banks ſides, and for ſafeguard of their lives, betake them to the Mountains. Sometimes alſo they will aſcend and climbe trees: as appeareth by an Epigram of *Anthologius*. It is a horrible, fearfull, and terrible Serpent, going ſlowly, having a weak ſight, alwayes ſleepy and drowſie, but a ſhrill and quick ſenſe of hearing, whereby ſhe is warned and advertiſed of all noyſe, which when ſhe heareth, preſently ſhe gathereth her ſelf round into a circle and in the middeſt lifteth up her terrible head: Wherein a man may note the gracious providence of Almighty GOD, which hath given as many remedies againſt evil, as there are evils in the World. For the dulneſſe of this Serpents ſight, and ſlowneſſe of her pace, doth keep her from many miſchiefs. Theſe properties are thus expreſſed by *Nicander*;

Formidabile cui corpus, tardumque volumen,
Quandoquidem tranſverſa via eſt prolixaque ventris
Spira, veternoſique nivere videntur ocelli.
At ſimul ac facili forte abſervaverit aure
Vel minimum ſtrepitum, ſegnes è corpore ſomnos
Excutit, & teretem ſinuat mox aſpera tractum,
Horrendumque caput, porrectaque pectora tollit.

In Engliſh thus;

This feared Aſp hath ſlow and winding pace,
When as her way on belly ſhe doth traverſe,
Her eyes ſhrunk in her head winking, appear in face,
Till that ſome noiſe her watchfull ear doth raviſh,
Then ſleep ſhak'd off, round is her body gathered,
With dreadfull head, on mounted neck up lifted.

The voice of the Aſp is hiſſing, like all other Serpents, and ſeldome is it heard to utter any voyce or ſound at all, except when ſhe is endangered, or ready to ſet upon her enemy. Whereupon ſaith *Nicander*;

——————Grave ſibilat ipſa
Beſtia, dum certam vomit ira concita mortem.

In Engliſh thus;

This beaſt doth hiſſe, with great and lowdeſt breath,
When in her mood ſhe threatneth certain death.

That place of *David*, Pſalm. 58. which is vulgarly read a death Adder, is more truly tranſlated *A deaf Aſp*, which when ſhe is enchanted, to avoid the voyce of the Charmer, ſhe ſtoppeth one of her ears with her tail, and the other ſhe holdeth hard to the earth: And of this incantation thus writeth *Vincentius Belluacenſis*. *Virtute quorundam verborum incantatur Aſpis, ne veneno interimat, vel ut quidam dicunt ut quieta capi poſſit, & gemma de fronte ejus auferri, quæ natur aliter in eo naſcitur*, that is to ſay, The Aſp is enchanted by vertue of certain words, ſo as ſhe cannot kill with her poyſon, or as ſome ſay, be taken quietly without reſiſtance, and ſo the Gem or pretious Stone be taken out of her fore-head, which naturally groweth therein. And from the words of the Pſalm aforeſaid, not only the certain and effectual uſe of charming is gathered by *Pierius*, but alſo by many juſtified in the caſe of Serpents. Whereof I have already given mine opinion in the former general Treatiſe, unto the which I will only adde thus much in concluſion, which I have found in a certain unnamed Author; *Dæmones diſcurrunt cum verbis ad Serpentes, & infectione interiori hoc faciunt, ut Serpentes ad nutum eorum moveantur, ac ſine læſione tractabiles exhibeantur*: Which is thus much in effect; Devils run up and down with words of enchantment to Serpents, and by an inward or ſecret infection, they bring to paſs that the Serpents diſpoſe themſelves after their pleaſure, and ſo are handled without all harm. And indeed, that it may appear to be manifeſt, that this incantation of Serpents is from the Devil, and not from God, this only may ſuffice any reaſonable man: becauſe the Pſalmiſt plainly expreſſeth, that the Serpent ſhifteth it off, and avoideth *Peritiſſimas muſſitantium incantationes*, the moſt skilful Charmers. Now if it came from the unreſiſtable power of Almighty God, it ſhould paſs the reſiſtance of them or Devils; but being a fallacy of the Devil, the Serpent (wiſer in this point then Men that believe it) eaſily turneth tail againſt it: and in this thing we may learn to be wiſe as Serpents, againſt the inchanting temptation of the Devil or Men, which would beguile us with ſhadows of words and promiſes of no valuable pleaſures.

If we may believe Pliny, *Ælianus*, and *Philarchus*, the *Egyptians* lived familiarly with Aſps, and with continued kindeneſs wan them to be tame. For indeed among other parts of their ſavage beaſtlineſs, they worſhipped Aſps even as houſhold Gods, by means whereof the ſubtil Serpent grew to a ſenſible conceit of his own honour and freedom, and therefore would walk up and down and play with their children, doing no harm, except they were wronged, and would come and lick meat from the table, when they were called by a certain ſignificant noiſe, made by knacking of the fingers. For the gueſts after their dinner, would mix together Hony, Wine, and Meal, and then give the ſign, at the hearing whereof they would all of them come forth of their holes; and creeping up, or lifting their heads to the table, leaving their lower parts on the ground, there licked they the ſaid prepared meat, in great temperance by little and little without any ravening, and then afterward departed when they were filled. And ſo great is the reverence they bear to Aſps, that if any in the houſe have need to riſe in the night time out of their beds, they firſt of all give out the ſign or token, leſt they ſhould harm the Aſp, and ſo provoke it againſt them: at the hearing whereof, all the Aſps get them to their holes and lodgings, till the perſon ſtirring be laid again in his bed.

The holy kinde of Aſps they call *Thermuſis*, and this is uſed and fed in all their Temples of *Iſis* with the fat of Oxen or Kine. Once in the year they crown with them the Image of *Iſis*, and they ſay that this kinde is not an enemy to Men, except to ſuch as are very evill, whereupon it is death to kill one of them willingly.

It is reported of a certain Gardiner making a ditch or trench in his Vineyard, by chance and ignorantly, he ſet his ſpade upon one of theſe *Thermuſis* Aſps, and ſo cut it aſunder, and when he turned up the earth, he found the hinder part dead, and the fore-part bleeding and ſtirring: at which ſight his ſuperſtitious heart overcome with a vain fear, became ſo paſſionately diſtreſſed, that he fell into a vehement and lamentable frenzy. So that all the day time he was not his own man, and in the night, in his mad fits he leapt out of his bed, crying out with pitiful and eager complaint, that the Aſp did bite him, the Aſp did wound him, and that he ſaw the picture of the ſaid Aſp (by him formerly ſlain) following him, and tearing his fleſh, and therefore moſt inſtantly craved help againſt it, ſaying ſtill he periſhed by it, he was mortally wounded. And when he had now (ſaith *Ælianus*) continued a while in this ſuperſtitious fury and diſeaſe of the minde, his kindred and acquaintance brought him into the houſe of *Serapis*, making requeſt unto that fained God to remove out of his ſight that ſpectre and apparition; and ſo he was releaſed, cured and reſtored to his right minde.

This kinde of Aſp they alſo ſay is immortal and never dyeth, and beſides it is a revenger of ſacriledge, as may appear by ſuch another Hiſtory in the ſame place. There was a certain *Indian* Peacock ſent to the King of *Egypt*, which for the goodly proportion and feature thereof, the King out of his devotion conſecrated to *Jupiter*, and was kept in the Temple. Now there was (ſaith he) a certain young Man which ſet more by his belly, then by his God, which fell into a great longing for to eat of the ſaid Peacock: and therefore to attain his appetite, he bribed one of the Officers of the Temple with a good ſum of Money to ſteal the ſaid Peacock, and bring it to him alive or dead. The covetous wretch enraged with the deſire of the Money, ſought his opportunity to ſteal away the Peacock, and one day came to the place where he thought and knew it was kept, but when he came, he ſaw nothing but an Aſp in the place thereof, and ſo in great fear leaped back to ſave his life, and afterward diſcloſed the whole matter. Thus far *Ælianus*.

The domeſtical Aſps underſtand right and wrong, and therefore *Philarchus* telleth a ſtory of ſuch an Aſp, which was a female, and had young ones: in her abſence one of her young ones killed a childe in the Houſe: When the old one came again according to her cuſtom to ſeek her meat, the killed childe was laid forth, and ſo ſhe underſtood the harm: Then went ſhe and killed that young Ælianus. one, and never more appeared in that houſe. It is alſo reported, that there was an Aſp that fell in love with a little Boy that kept Geeſe in the Province of *Egypt*, called *Herculia*, whoſe love to the ſaid Boy was ſo fervent, that the Male of the ſaid Aſp grew jealous thereof. Whereupon one day as he lay aſleep, ſet upon him to kill him, but the other ſeeing the danger of her love, awaked and delivered him.

There is much and often mention made of Aſps in holy Scripture, beſide the forenamed place, Pſal. 58. as in Eſa. 59. the *Jews* are compared to Aſps, and their labours to Spiders webs. And Eſa. 11. *The ſucking childe ſhall play upon the hole of the Aſp.* Whereupon a learned man thus writeth; *Quicunq; ex hominibus occulto veneno ad nocendum referti ſunt, ſub regno Chriſti mutato ingenio fore vel pueris innoxios*; that is, whoſoever by ſecret poyſon of nature are apt to do harm to other, in the Kingdom of Chriſt their nature ſhall be ſo changed, that they ſhall not harm ſucklings, not able to diſcover them. Great is the ſubtilty and fore-knowledge of Aſps, as may appear by that in Pſal. 58. againſt the Charmers voyce. As alſo it is ſtrange, that all the Aſps of *Nilus* do thirty days before the flood remove themſelves and their young ones into the Mountains, and this is done yearly, once at the leaſt, if not more often.

They ſort themſelves by couples, and do live as it were in marriage, Male and Female, ſo that their ſenſe, affection, and compaſſion, is one and the ſame: for if it happen that one of them be killed, they follow the perſon eagerly, and will finde him out, even in the midſt of many of his fellows: that is, if the killer be a beaſt, they will know him among beaſts of the ſame kinde: and if he be a man, they will alſo finde him out among men: and if he be let alone, he will not among thouſands harm any but he: breaking through all difficulties (except water,) and is hindred by nothing elſe, Pliny. except by ſwift flying away. We have ſhewed already, how the *Pſyllians* in *Aſia* caſt their children newly born to Serpents, becauſe if they be of the right ſeed and kindred to their Father, no Serpent will hurt them, but if they be Baſtards of another race, the Serpents devour them: theſe Suidas. Serpents are to be underſtood to be Aſps. Aſps alſo we have ſhewed were deſtroyed by the *Argole*, which *Alexander* brought from *Argos* to *Alexandria*, and therefore thoſe are to be reckoned their enemies. Shadows do alſo ſcare away & terrifie Aſps, as *Seneca* writeth. But there is not more mortal hatred or deadly war betwixt any, then betwixt the Ichneumon and the Aſp. When the Ichneumon hath eſpyed an Aſp, ſhe firſt goeth and calleth her fellows to help her, then they all before they enter fight do wallow their bodies in ſlime, or wet themſelves, and then wallow in the ſand, ſo harneſſing, and as it were arming their skins againſt the teeth of their enemy: and ſo when they finde themſelves ſtrong enough, they ſet upon her, briſtling up their tails firſt of all, and turning to the Serpent till the Aſp bite at them, and then ſodainly ere the Aſp can recover, with ſingular celerity they flie to her chaps and tear her in pieces, but the victory of this combate reſteth in anticipation, for if the Aſp firſt bite the Ichneumon, then is he overcome, but if the Ichneumon firſt lay hold on the Aſp, then is the Aſp overcome. This hatred and contention is thus deſcribed by *Nicander*;

Solus eam potis eſt Ichneumon vincere peſtem,
Cum grave cautus ei bellum parat, editaq; ova,
Quæ fovet in multorum hominum inſuperabile lethum,
Omnia fracta terit, mordaceq; dente laceſſit.

That is to ſay;

Ichneumon only is of ſtrength, that peſt to overquell,
Gainſt whom in wary wiſe his war he doth prepare,
Her egges, a deadly death to many men, in ſand he doth out ſmell,
To break them all within his teeth, this nimble beaſt doth dare.

Pliny, *Cardan*, and *Conſtantine* affirm, that the herb *Arum*, and the root of Winterberry, do ſo aſtoniſh Aſps, that their preſence layeth them in a deadly ſleep: and thus much of their concord with other creatures.

Galen writeth, that the *Marſians* do eat Aſps without all harm, although as *Mercurial* ſaith, their whole fleſh and body is ſo venomous, and ſo repleat with poyſon, that it never entereth into medicine, or is applyed to ſick or ſound upon any Phyſical qualification: the reaſon of this is given by himſelf and *Fracaſtorius*, to be either, becauſe Aſps under their Climate or Region are not venomous at all, as in other Countries, neither Vipers nor Serpents are venomous: or elſe becauſe thoſe people have a kinde of ſympathy in nature with them, by reaſon whereof they can receive no poyſon from them.

The poyſon of Aſps ſaith *Moſes*, Deut. 32. is *crudele venenum*, a cruel poyſon, and Job, 20. cap. expreſſing the wicked mans delight in evil, ſaith; *That he ſhall ſuck the poyſon of Aſps.* For which cauſe, Textor. as we have ſhewed already, the harm of this is not eaſily cured. We read that *Canopus*, the Maſter of *Menelaus* ſhip, to be bittten to death by an Aſp at *Canopus* in *Egypt*. So alſo was *Demetrius Phalerus*, a Scholar of *Theophraſtus*, and the Keeper of the famous Library of *Ptolemæus Soter*. *Cleopatra* likewiſe to avoid the triumph that *Auguſtus* would have made of her, ſuffered her ſelf willingly to be bitten to death by an Aſp. Wheeupon *Propertius* writeth thus:

Brachia ſpectavi ſacris admorſa colubris,
Et trahere occultum membra ſoporis iter.

In Engliſh thus;

Thus I have ſeen thoſe wounded arms,
With ſacred Snakes bitten deep,
And members draw their poyſoned harms,
Treading the way of deaths ſound ſleep.

We read alſo of certain Mountebanks, and cunning Juglers in *Italy*, called *Circulatores*, to periſh by their own deviſes through the eating of Serpents, and Aſps which they carryed about in Boxes as tame, uſing them for oſtentation to get Money, or to ſell away their Antidotes. When *Pompeius Rufus* was the great Maſter of the Temple-works at *Rome*, there was a certain Circulator or Quackſalver, to ſhew his great cunning in the preſence of many other of his own trade, which ſet to his arm an Aſp, preſently he ſucked out the poyſon out of the wound with his mouth: but when he came to look for his preſervative water, or antidote, he could not finde it; by means whereof the poyſon fell down into his body, his mouth and gums rotted preſently, by little and little, and ſo within two days he was found dead. The like ſtory unto this is related by *Amb. Paræus*, of another, which at *Florence* would fain ſell much of his medicine againſt poyſon, and for that purpoſe ſuffered an Aſp to bite his fleſh or finger, but within four hours after he periſhed, notwithſtanding all his antidotical preſervatives. *Ælianus.*

Now therefore it remaineth, that we add in the concluſion of this Hiſtory, a particular diſcourſe of the bitings and venom of this Serpent, and alſo of ſuch remedies as are appointed for the ſame. Therefore we are to conſider, that they bite and do not ſting, the females bite with four teeth, the males but with two, and when they have opened the fleſh by biting, then they infuſe their poyſon into the wound. Only the Aſp *Ptyás*, killeth by ſpitting venom through her teeth, and (as *Avicen* ſaith) the ſavour or ſmell thereof will kill, but at the leaſt the touching infecteth mortally. When an Aſp hath bitten, it is a very difficult thing to eſpy the place bitten or wounded, even with moſt excellent eyes, as was apparent upon *Cleopatra* aforeſaid; and the reaſon hereof is given to be this, becauſe the poyſon of Aſps is very ſharp, and penetrateth ſuddenly and forcibly under the skin, even to the inmoſt parts, not ſtaying outwardly, or making any great viſible external appearance. Yet *Galen* writing to *Piſo*, affirmeth otherwiſe of the wound of *Cleopatra*; but becauſe drowſineſs and ſleep followeth that poyſon, I rather believe the former opinion: and therefore *Lucan* calleth the Aſp, *Somnifera*, that is, a ſleep-bringing Serpent. And *Pictorius* alſo ſubſcribeth hereunto. *Mercurial.* *Aetius.*

Aſpidis & morſu læſum dormire ſatentur
In mortem, antidotum nec valuiſſe ſerunt.

Which may be Engliſhed thus;

He that by rage of Aſps tooth is bitten or is wounded,
They ſay doth ſleep until his death cureleſs, he is confounded.

The pricks of the Aſps teeth, are in appearance not much greater then the prickings of a needle, without all ſwelling, and very little bloud iſſueth forth, and that is black in colour; ſtraightway the eyes grow dark and heavy, and a manifold pain ariſeth all over the body, yet ſuch as is mixed with ſome ſenſe of pleaſure, which cauſed *Nicander* to cry out, *Perimitque virum abſque dolore*, it kills a man without pain. His colour is all changed, and appeareth greeniſh like graſs. His face or forehead is bent continually frowning, and his eyes or eye-lids moving up and down in drowſineſs without ſenſe, according to theſe verſes following.

Nec tamen ulla vides impreſſi vulnera morſus,
Nec dignus fatu tumor ictum corpus adurit.
Sed qui læſus homo eſt, citra omnem fata dolorem
Claudit, & ignavo moriens torpore fatiſcit.

Which I tranſlate thus;

Wounds of impreſſed teeth, none canſt thou ſee,
Nor tumour worth the naming, ſmitten body burning,
But yet the hurt man painleſs taketh deſtiny,
And ſleeping dyeth, ſluggiſhly him turning.

The true ſignes then of an Aſps biting, is ſtupour or aſtoniſhment, heavineſs of the head, and ſlothfulneſs, wrinking the fore-head, often gaping and gnawing, and nodding, bending the neck, and Convulſion: but thoſe which are hurt by the *Ptyas*, have blindeneſs, pain at the heart, deafneſs, and ſwelling of the face. And the ſignes of ſuch as are hurt by the *Chalidonian* or *Cherſæan* Aſp, and the *Terreſtrian* are all one, or of very little difference, except that I may adde the Cramp, and the often beating of the pulſe, and frigidity of the members or parts, or pain in the ſtomach, but all of them in in general, deep ſleep, and ſometimes vomiting. But by this, that the bloud of the place by them bitten turneth black; it is apparent and manifeſt, that the poyſon of the Aſp mortifieth or killeth the natural heat, which is overcome by the heat of the poyſon outwardly, and the darkneſſe or blindneſſe of the eyes proceedeth of certain vapours which are infected, and aſcend up to the diſturbance of the brain: and when the humors are troubled in the ſtomach, then followeth vomiting or elſe the cramp, and ſometimes a looſeneſs when the knuckles are drawn in by the venomous biting, or the infected humors falling down into the intrails. *Ponzettus.* To conclude, ſo great is the tabifical effect of this poyſon of Aſps, that it is worthily accounted the greateſt venom, and moſt dangerous of all other; for *Ælianus* ſaith, *Serpentum venenum cum peſtiferum ſit, tum multò aſpidu peſtilentius*, the poyſon of all Serpents is peſtiferous, but the venom of the Aſp moſt of all. For if it *Galen.* touch a green wound, it killeth ſpeedily, but an old wound receiveth harm thereby more hardly. In *Alexandria*, when they would put a Man to a ſudden death, they would ſet an Aſp to his boſom or breaſt, and then after the wound or biting, bid the party walk up and down, and ſo immediately within two or three turns he would fall down dead. Yet it is reported by *Pliny*, that the poyſon of Aſps drunk into the body doth no harm at all, and yet if a Man eat of the fleſh of any beaſt ſlain by an Aſp, he dyeth immediately.

But concerning the cure of ſuch as have been, or may be hurt by Aſps, I will now entreat, not ſpending any time to confute thoſe, who have wrote that it is incurable: on the contrary it ſhall be manifeſt, that both by Chirurgery and Medicines, compound and ſimple, this both hath been and *Dioſcorid.* may happily be effected. First it is neceſſary when a Man is ſtung or bitten by a Serpent, that the *Actuarius.* wounded part be cut off by the hand of ſome skilful Chirurgeon, or elſe the fleſh round about the *Ægineta.* wound, with the wound it ſelf to be circumciſed and cut with a ſharp Raſor; then let the hotteſt burning things be applyed, even the ſearing Iron to the very bone. For ſo the occaſion being taken away from the poyſon to ſpread any further, it muſt needs die without any further damage. Then alſo the holes in the mean time before the ejection muſt be drawn, either with Cupping-glaſſe or with a Reed, or with the naked rump of a Ringdove or Cock; I mean the very hole ſet upon the bitten place. And becauſe the hole is very narrow and ſmall, it muſt be opened and made wider, the bloud be drawn forth by ſcarifications, and then muſt ſuch medicinal herbs be applyed as are moſt oppoſite *Mercurialis.* to poyſon, as Rue, and ſuch like. And becauſe the poyſon of Aſps doth congeal the bloud in the veins, therefore againſt the ſame muſt all hot things made thin be applyed, as *Mithridatum* and Triacle diſſolved in *Aqua vitæ*, and the ſame alſo diſſolved into the wound; then muſt the Patient be uſed to bathings, fricaſing or rubbing, and walking, with ſuch like exerciſes. But when once the wound beginneth to be purple, green, or black, it is a ſign both of the extinguiſhment of the venom, and alſo of the ſuffocating of natural heat, then is nothing more ſafe then to cut off the mem- *Paræus.* ber, if the party be able to bear it. After Cupping-glaſſes, and Scarifications, there is nothing that can be more profitably applyed then Centory, Myrrh, and *Opium*, or Sorrel after the manner *Aetius.* of a Plaiſter. But the body muſt be kept in daily motion and agitation, the wounds themſelves often ſearched and preſſed, and Sea-water uſed for fomentation. Butter likewiſe, and the leaves of Yew, are very good to be applyed to the bitings of Aſps. And in the Northern Regions (as witneſſeth *Olaus Magnus*,) they uſe nothing but Bran like a Plaiſter, and their Cattle they anoint with Triacle and Salt all over the bunch or ſwelling. And thus much for the Chirurgical cure of the biting of Aſps. In the next place, we may alſo relate the medicinal cure, eſpecially of ſuch things as are compound, and received inwardly.

Firſt, after the wound, it is good to make the party vomit, and then afterward make him drink juyce of Yew and Triacle, or in the default thereof, Wine, as much of the juyce as a groat weight, or rather more. But for the tryal of the parties recovery, give him the powder of Centory in Wine to drink, and if he keep the medicine, he will live, but if he vomit or caſt it up, he will dye *Mercurialis.* thereof. But for the better avoidance and purging out the digeſted venom, diſtributed into every part of his body, give the party Garlick beaten with *Zythum*, until he vomit, or elſe *Opoponax* in Wine allayed with water: alſo *Origan* dry and green. After the vomit, the former antidotical me- *Andreas.* dicines may be uſed. And the Northern people uſe no other Triacle then Venetian. Whereas there are aboundance of all manner of Serpents in the *Spaniſh* Iſlands, yet never are any found there to uſe Triacle, neither do they account of it as of a thing any whit vertuous, but inſtead thereof they uſe the bearded *Thapſia*, Gilly-flowers, and red Violets, and the herb *Avance*, boyled in Wine Vinegar, the ſharpeſt that may be gotten, and a ſound mans Urine, wherewithall they bathe the wounded part, although much time after the hurt received. But ſaith *Amb. Paræus*, it is much better for the Patient to drink thereof faſting, and before meat two hours, three ounces at a time. And by the help of this notable experiment, the Inhabitants of thoſe Iſlands are nothing afraid to offer their bodies to be bitten by the moſt angry Aſps. And thus much for compound medicines in general.

Aetius. It is ſaid, that the firſt and chiefeſt eaſie remedy for ſuch as are bitten by Aſps, is to drink ſo much of the ſharpeſt Vinegar, as he can ſenſibly perceive and feel the ſame upon the right ſide of his midriffe, becauſe that poyſon firſt of all depriveth the liver of ſenſe. For *Pliny* ſaith, that he knew a man carrying a bottle of Vinegar to be bitten by an Aſp, whiles by chance he trode thereupon, but as long as he bore the Vinegar and did not ſet it down, he felt no pain thereby, but as often as to eaſe himſelf he ſet the bottle out of his hand, he felt torment by the poyſon, which being related to the Phyſitians, they knew thereby that Vinegar drunk into the ſtomach was a ſoveraign antidote againſt poyſon. Yet ſome ſay, that the firſt knowledge of this vertue in Vinegar, grew from the neceſſity which a little boy bitten by an Aſp had of drinking, and finding no other liquor but a bottle of Vinegar, drank thereof a full draught, and ſo was eaſed of his pain. For the reaſon is, that it hath both a refrigerative, and alſo a diſſipating vertue, as may appear when it is poured on the earth, becauſe it yeeldeth a froth, and therefore when it cometh into the ſtomach, it diſperſeth all the infected humors.

Cor. Celſus.

Olaus Mag.

The Northern Shepheards do drink Garlick and ſtale Ale againſt the bitings of Aſps. And ſome hold an opinion that Aniſeed is an antidote for this ſore. Others uſe Hart-wort, *Apium* ſeed, and Wine. *Aron* being burned, hath the vertue to drive away Serpents, and therefore being drunk with Oyl of bays in black Wine, it is accounted very ſoveraign againſt the bitings of Aſps. The fruit of Balſam, with a little powder of Gentian in Wine, or the juyce of Mints, keepeth the ſtomach from the Cramp after a Man is bitten by an Aſp. Others give *Caſtoreum*, with *Lignum Caſſiæ*, and ſome the skin of a Storks ſtomach or maw. There be certain little filthy and corrupt Worms bred in rotten wood or paper, called *Cimices*, theſe are very profitable againſt poyſon of Aſps, or any other venomous biting beaſt, and therefore it is ſaid that Hens and other Pullein do earneſtly ſeek after theſe worms, and that the fleſh of ſuch fowl as have eaten thereof, is alſo profitable for the ſame purpoſe.

Athenæus alſo writeth, how certain Theeves were condemned to be caſt to Serpents to be deſtroyed, now the morning before they came forth, they had given them to eat Citrons; when they were brought to the place of execution, there were Aſps put forth unto them, who bit them, and yet did not harm them. The next day, it being ſuſpected, the Prince commanded to give one of them a Citron, and the other none, ſo when they were brought forth again the Aſps fell on them, and ſlew them that had not eaten Citron, but the other had no harm at all. The *Egyptian Clematis* or *Periwink* drunk in Vinegar, is very good againſt the poyſon of Aſps; ſo likewiſe is Corral in Wine, or the leaves of Yew. Henbane bruiſed with the leaves thereof, and alſo bitter Hops have the ſame operation. The urine of a Tortoiſe drunk, is a medicine againſt all bitings of wilde beaſts, and the urine of a Man hurt by an Aſp, as *Marcus Varro* affirmed in the eighty ninth year of his age, according to the obſervation of *Serenus* ſaying;

Pliny.
Orpheus.

Si vero horrendum vulnus fera fecerit Aſpis,
Urinam credunt propriam conducere potu:
Varronis fuit iſta ſenis ſententia, nec non
Plinius ut memorat, ſumpti juvat imber aceti.

Which may be Engliſhed thus;

If that an Aſp a mortal wound do bite,
It's thought his urine well doth cure again,
Such was the ſaying of old Varro hight,
And Pliny too, drink Vinegar like drops of rain.

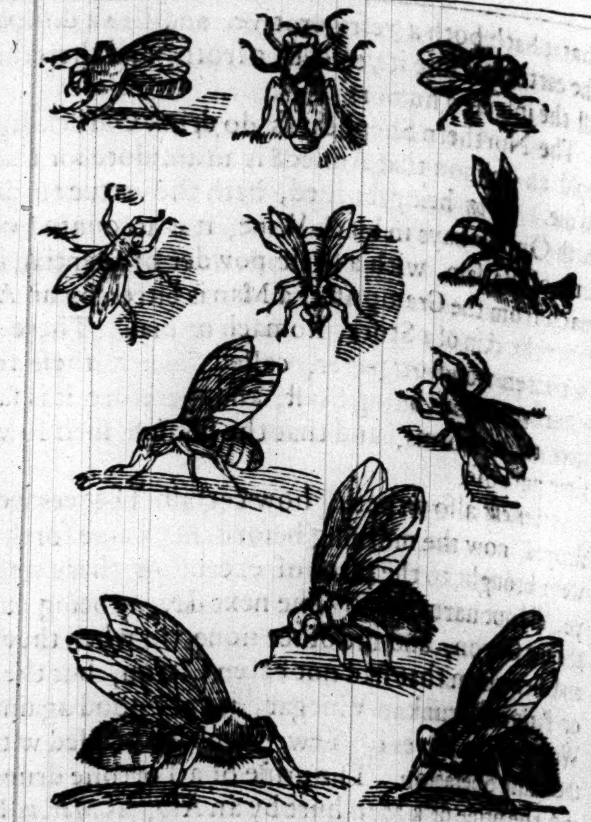
But it is more ſafe to agree with *Pliny* in the preſcription of Mans urine, to reſtrain it to them that never had any beards. And more particularly againſt the Aſp called *Ptyas*, and *Matthiolus* out of *Dioſcorides* ſaith, that the quinteſſence of *Aqua vitæ*, and the uſual antidote, both mixed together and drunk, is moſt powerful againſt the venoms of the deaf Aſp. And thus much for the antipathy and cure of Aſps biting venomous nature, whereunto I will add for a concluſion, that proverbial ſpeech, of one Aſp borrowing poyſon of another, out of *Tertullian* againſt the Heretick *Marcion*, who gathered many of his abſurd impieties from the unbelieving *Jews*. *Deſinat nunc hæreticus à Judæo aſpis quod aiunt á Vipera mutuari venenum*, that is, let the heretick now ceaſe to borrow his venom of a *Jew*, as the Aſps do borrow their poyſon from Vipers. And true it is, that this proverb hath eſpecial uſe, when one bad man is holp or counſelled by another; and therefore when *Diogenes* ſaw a company of women talking together, he ſaid merrily unto them, *Aſpis par' echidnes pharmacon daneizetai*; that is, the Aſp borroweth venom of the Viper. Thus much of the Aſp.

Of the Deſcription and differences of BEES.

Dr. Bonham his diſcourſe of Bees, Waſps and Drones.

AMongſt all the ſorts of venomous Inſects, (or cut-waſted creatures) the ſoveraignty and preheminence is due to the Bees, who only of all others of this kinde, are made for the nouriſhment of mankinde, all other (cut-waſted) ſerving only for medicinal uſe, the delight of the eyes, delectation of the ears, and the ornament, trimming, and ſetting forth of the body, which they perform at the full. They are called of the *Hebrews*, *Deborah*; the *Arabians* term them, *Albara*, *Nabahalea*, and *Zebar*; the *Illyrians* and *Sclavonians*, *Wezilla*; the *Italians*, *Ape*, *Api*, *Vna ſticha*, *Moſcatella*, *Ape* or *Scoppa*, *Pecchi*; the *Spaniards*, *Abeia*; *Frenchmen*, *Mouſches au miel*; the *Germans*, *Een ymbe*, *apen*. The *Flemings*, *Bie*; the *Polonians*, *Pszczota*; the *Iriſh* men, *Camilii*. In *Wales* a Bee is called *Gwenin*. Amongſt the *Grecians* they have purchaſed ſundry names, according to the diverſity of Nations, Countries and places, but the moſt vulgar name is *Meliſſa*, and in *Heſiodus*, *Melie*. Otherſome call a Bee *Plaſtis*, *à fingendo*, of framing. Some again *Anthedon*: and of their colour, *Xanthai*. Of their Offices and charge, *Egemones*, *ab imperando*, from governing. *Sirenes*, *à ſuavi cantu*, from their ſweet voyce. The *Latines* call them by one general name, *Apis* and *Apes*. *Varro* ſometimes terms them *Aves*, but very improperly, for they might better be named *Volucres*, not *Aves*. So much for their names, now to the definition.

Names.



Apum definitio.

Deſcription of their parts.

No reſpiration in Bees.

A Bee is a cut-waſted living creature, that can flye, having four wings, and bloudleſſe, the only Crafts-maſter of Hony-making. Their eyes are ſomewhat of a horny ſubſtance; hid deep in their bodies, as is alſo their ſting: they want neither tongue nor teeth, they have four wings, being of a bright and clear colour, growing to their ſhoulder-blades, whereof the two hinder-moſt are the leſſer, becauſe they might not hinder their flying: and out of their ſhort feet or ſtumps there grow forth as it were two fingers, wherein they carry a little ſtone, for the poiſing and making weighty their ſmall bodies in ſtormy, tempeſtuous, bluſtering or troubleſome weather, for fear leſt they might be driven from their houſe and home, by the contrary rage and violence of the windes. They do not breath (by *Plinies* good leave) but either pant, move, or ſtir (as the heart or brain doth) and by tranſpiration they are comforted, refreſhed, and made lively. Their ſtomach is contexed and framed of the thinneſt part of all their members, wherein they not only retain, and ſafely keep their Honey dew which they have gathered, but alſo digeſt, purifie, and clenſe it, which is the true and only reaſon, why the Honey of Bees is longer kept pure and fine, then any Manna or Meldew, or rather it is not at all ſubject to corruption.

Differences of Bees from nature.

Deſcription of the King.

Differences in regard of ſex.

Bees even by nature are much different: for ſome are more domeſtical and tame, and other again are altogether wilde, uplandiſh, and agreſtial. Thoſe former are much delighted with the familiar friendſhip, cuſtom and company of men, but theſe can in no wiſe brook or endure them, but rather keep their trade of Honey-making in old trees, caves, holes, and in the ruders, and rubbiſh of old walls and houſes. Of tame Bees again, ſome of them live in pleaſant and delightful Gardens, and abounding with all ſweet ſenting and odoriferous plants and herbs; and theſe are great, ſoft, fat, and big bellyed. Others again, there be of them that live in Towns and Villages, whoſe ſtudy and labour is to gather Honey from ſuch plants as come next to hand, and which grow farther off, and theſe are leſſer in proportion of body rough and more unpleaſant in handling; but in labour, induſtry, wit and cunning, far ſurpaſſing the former. Of both ſorts of theſe, ſome have ſtings (as all true Bees have:) others again are without a ſting, as counterfeit and baſtardly Bees, which (even like the idle, ſluggiſh, lither, and ravenous cloyſtered Monks, thrice worſe then theeves) you ſhall ſee to be more gorbellied, have larger throats, and bigger bodies, yet neither excellent or markable, either for any good behaviour and conditions, or gifts of the minde. Men call theſe unprofitable cattle, and good for nothing, *Fuci*, that is Drones; either becauſe they would ſeem to be labourers, when indeed they are not: or becauſe that under the colour and pretence of labour (for you ſhall ſometime have them to carry wax, and to be very buſie in forming and making Honey-combes,) they may eat up all the Honey. Theſe Drones are of a more blackiſh colour, ſomewhat ſhining, and are eaſily known by the greatneſſe of their bodies. Beſides ſome Bees are deſcended of the Kingly race, and born of the bloud Royal: whereof *Ariſtotle* maketh two ſorts; a yellow kinde, which is the more noble, and the black, garniſhed with divers colours. Some make three Kings, differing in colour, as black, red, and divers coloured. *Menecrates* ſaith, that thoſe who are of ſundry colours are the worſer, but in caſe they have diverſity of colour with ſome blackneſſe, they are eſteemed the better. He that is elected Monarch *Cæſar*, and Captain General of the whole ſwarm, is ever of a tall, perſonable, and heroical ſtature, being twice ſo high as the reſt, his wings ſhorter, his legs ſtraight, brawny, and ſtrong, his gate, pace, and manner of walking is more lofty, ſtately, and upright, of a venerable countenance; and in his fore-head there is a certain red ſpot or mark with a Diadem; for he far differeth from the popular and inferiour ſort in his comelineſſe, beauty, and honour. The Prince of Philoſophers confoundeth the ſex of Bees, but the greateſt company of learned Writers do diſtinguiſh them: whereof they make the feminine ſort to be the greater. Others again will have them the leſſer, with a ſting: but the ſounder ſort (in my judgement) will neither know nor acknowledge any other males, beſides their Dukes and Princes, who are more able and handſome, greater and ſtronger then any of the reſt, who ſtay ever at home, and very ſeldom (unleſſe with the whole Swarm) they ſtir out of doors, as thoſe whom nature hath pointed out to be the fitteſt to be ſtander-bearers; and to carry ancients in the camp of *Venus*, and ever to be ready at the elbows of their loves to do them right: Experience teaching us, that theſe do ſit on Egges, and after the manner of birds, do carefully cheriſh and make much of their young, after the thin membrane or skin wherein they are encloſed is broken.

The difference of their age is known by the form, ſtate, and habit of their bodies. For the young Bees have very thin and trembling wings, but they that are a year old, as they that are two or three

year

years of age are very trim, gay, bright-ſhining and in very good plight and liking, of the colour of Oyl.

But thoſe that have reached to ſeaven years, have layed away all their flatneſs and ſmoothneſs, neither can any man afterwards either by their figure and quality of their bodies or skins, judge or diſcern certainly their age (as we ſay by experience in Horſes:) For the elder ſort of them are rough, hard, thin and lean ſcrags, ſtarvelings, loathſome to touch and to look upon, ſomewhat long, nothing but skin and bone, yet very notorious and goodly to ſee to, in regard of their gravity, hoarineſs and anciency. But as they be in form and ſhape, nothing ſo excellent, ſo yet in experience and induſtry they far out-ſtrip the younger ſort, as thoſe whom time hath made more learned, and length of days joyned with uſe, hath ſufficiently inſtructed and brought up in the Art or trade of Honey-making.

The difference of the form of Bees according to the place.

The place likewiſe altereth one whiles their form, and ſometimes again their nature, (as their ſex and age do both.) For in the Iſlands of *Molucca*, there be Bees very like to winged Piſmires, but ſomewhat leſſer then the greater Bees, as *Maximilian Tranſilvonus*, in an Epiſtle of his written to the Biſhop of *Salſpurge*, at large relateth it. *Andrew Thevet* in his book that he wrote of the New-found World, Chap.51. amongſt other matters reporteth that he did ſee a company of flies or Honey-bees about a tree named *Vbebebaſon*, which then was green, with the which theſe Honey-bees do live and nouriſh themſelves: of the which trees there were a great number in a hole that was in a tree, wherein they made Honey and Wax. There is two kindes of the Honey-bees, one kinde are as great as ours, the which cometh not only but of good ſmelling flowers, alſo their Honey is very good, but their Wax not ſo yellow as ours. There is another kinde half ſo great as the other: their Honey is better then the other, and the wilde men name them *Hira*. They live not with the others food, which to my judgement maketh their Wax to be as black as coals, and they make great plenty, ſpecially near to the River *Vaſſes*, and of *Plate*. The Bees called *Chalcoides*, which are of the colour of braſs, and ſomewhat long, which are ſaid to live in the Iſland of *Creta*, are implacable, great fighters and quarrellers, excelling all others in their ſtings, and more cruel then any others, ſo that with their ſtings they have chaſed the Inhabitants out of their Cities; the remainder of which Bees do remain and make their Honey-combes (as *Ælianus* ſaith) in the Mountain *Ida*. Thus much of the differences of Bees; now it remaineth to diſcourſe of the Politick, Ethical, and Oeconomick vertues and properties of them.

Bees of *America*.

The government of Bees.

Bees are governed and do live under a Monarchy, and not under a tyrannical State, admitting and receiving their King, not by ſucceſſion or caſting of lots, but by reſpective advice, conſiderate judgement, and prudent election; and although they willingly ſubmit their necks under a Kingly government, yet notwithſtanding they ſtill keep their ancient liberties and priviledges, becauſe of a certain Prerogative they maintain in giving their voices and opinions, and their King being deeply bound to them by an oath, they exceedingly honour and love.

The King as he is of a more eminent ſtature, and goodly corporature (as before we have touched) then the reſt: ſo likewiſe (which is ſingular in a King) he excelleth in mildneſs and temperateneſs of behaviour. For he hath a ſting, but maketh it not an inſtrument of revenge, which is the cauſe that many have thought their King never to have had any. For theſe are the laws of nature, not written with Letters, but even imprinted and engraven in their conditions and manners: and they are very ſlow to puniſh offenders, becauſe they have the greateſt and Soveraign power in their hands. And although they ſeem to be ſlack in revenging and puniſhing private injuries, yet for all that they never ſuffer rebellious perſons, refractorious, obſtinate, and ſuch as will not be ruled, to eſcape without puniſhment, but with their pricking ſtings they grievouſly wound and torment, ſo diſpatching them quickly. They are ſo ſtudious of peace, that neither willingly nor unwillingly they will give any cauſe of offence or diſpleaſure. Who therefore would not greatly be diſpleaſed with, and hate extreamly thoſe *Dionyſian* Tyrants in *Sicilia*, *Clearchus* in *Heraclea*, and *Apollodorus* the Theef, Pieler and ſpoiler of the *Caſſandrines?* And who would not deteſt the ungratiouſneſs of thoſe lewd claw-backs, and Trencher-paraſites, and flatterers of Kings, which dare impudently maintain, that a Monarchy is nothing elſe but a certain way and rule for the accompliſhing of the will, in uſing their authority as they liſt, and a ſcience or skilful trade, to have wherewith to live pleaſantly in all ſenſual and worldly pleaſure: which ought to be far from a good Prince, who whileſt he would ſeem to be a Man, he ſhew himſelf to be far worſer then theſe little poor winged creatures. And as their order and courſe of life is far different from the vulgar ſort, ſo alſo is their birth; for they of the Kingly race are not born after the manner of a little Worm, as all the Commialty are, but is forthwith winged, and amongſt all his younglings; if he finde any of his ſons to be either a fool, unhandſome, that none can take pleaſure in, rugged, rough, ſoon angry, fumiſh or too teaſty, ill ſhaped, not beautiful or Gentleman-like, him by a common conſent, and by a Parliamentary authority they deſtroy, for fear leſt the whole Swarm ſhould be divided and diſtracted into many mindes, and ſo at length the Subjects undone by factions, and banding into parts.

The King preſcribeth laws and orders to all the reſt, and appointeth them their rules and meaſures: for ſome he ſtraightly chargeth and commandeth, (as they tender his favour, and will avoid his diſpleaſure) to fetch and provide water for the whole Camp. He enjoyneth others to make the Honey-combes, to build, to garniſh, and trim up the houſe well and cleanly, to finiſh perfectly the work, to finde and allow, to promote and ſhew others what to do. Some he ſendeth forth to ſeek their living, but being worn with years, they are maintained at the common ſtock at home. The younger and ſtronger being appointed to labour, and take their turns as they fall: And although (being a King) he be diſcharged and exempt from any mechanical buſineſs, yet for all that, in caſe of neceſſity he will buckle himſelf to his task, never at any time taking the field or air abroad, but either for his healths ſake, or when he cannot otherwiſe chuſe, by means of ſome urgent buſineſs. If in reſpect of his years he be luſty and ſtrong, then like a Noble Captain he marcheth before his whole winged-army, expoſing himſelf firſt to all perils, neither with his good will will he be carryed of his Souldiers, unleſs he be wearied and weakened by means of crooked age, or maſtered and clean put out of heart, by any violent ſickneſs, ſo that he can neither ſtand on his legs, nor flie. When night approacheth, the ſign and token being given by his Honey-pipe, or Cornet, (if you will ſo call it) a general Proclamation is made through the whole Hive, that every one ſhall betake himſelf to reſt, ſo the watch being appointed, and all things ſet in order, they all make themſelves ready and go to bed. So long as the King liveth, ſo long the whole ſwarm enjoy the benefit of peace, leading their lives without any diſquieting, diſturbance, vexation, or fear of future wars. For the Drones do willingly contain themſelves in their own cells, the elder living contented with their own homes, and the younger not daring for their ears to break into their fathers Lands, or to make any inrodes or invaſion into the houſes of their predeceſſors. The King keepeth his Court by himſelf, in the higheſt and largeſt part of the whole Palace, his lodging being workmanlike and very cunningly made of a fine round or encloſure of Wax, being thus as it were fenced and paled about as with a defenſible wall. A little from him dwell all the Kings children, being very obedient to their parents beck: Their King being dead, all his ſubjects in an uprore, Drones bring forth their young in the cells of the true Bees, all are in a hurly burly, all being out of ſeaſon and order. *Ariſtotle* ſaith, that Bees have many Kings, which I would rather tearm Viceroys or Deputies, ſithence it is certain (as *Antigonus* affirmeth) that as well the ſwarms do die and come to nought, by having of many Kings, as none at all. And thus to have ſpoken of good Kings let this ſuffice. Evill Kings are more rough, rugged, browner, blacker, and of more ſundry colours: whoſe natures and diſpoſitions you will condemn, in reſpect of their habit and manner of body and minde, the one and other are thus Phyſiognomically deſcribed by the Poet;

Namq; duæ regum facies, duo corpora gentis.
Alter erit maculis auro ſquallentibus ardens,
Et rutilis clarus ſquamis, inſignis & ore.
Fædior eſt alter multo, quàm pulvere abacto
Quum venit & ſicco terram ſpuit ore venator:
Deſidia latamque trahens inglorius aluum——*Hunc*
Dede neci, melior vacua ſine regnet in aula.

In Engliſh thus;

The two aſpects of Kingly Bees, two Nations do diſcloſe,
One of them, Golden ſpotted red, burning with pale hew,
And having ſcales both red and clear, and great about the noſe,
The other filthy to behold like duſt, for it is true,
Which hunters ſpit upon dry land, when all is cruſht and preſt,
In ſloth belly broad, doth travail worſer then the leaſt,
Him kill, let the other raign
Alone, in empty Court, do not diſdain.

And thus hitherto have we ſpoken of their Kings and Dukes: now will we bend our diſcourſe to the common ſort of Bees.

Bees are neither to be accounted wilde, nor altogether calm and quiet creatures, but of a nature betwixt both: and of all other they are eſteemed moſt ſerviceable and profitable. Their ſting giveth both life and death to them, for being deprived of it, they ſurely die: but having it, they repell all hoſtility from their ſwarms. Of theſe there are none idle, although they be not all Honey-makers, neither are the moſt ſluggiſh of them all, like unto the Drones in their inclination and manners: For they do not corrupt and mar the Honey-combes, neither do they lie in wait by treachery and deceit to filch Honey, but are nouriſhed by flowers, and flying forth with their fellows, do get their living with them; although ſome of them want the skill to make and lay up the Honey finely and ſafely, yet notwithſtanding every one hath his proper charge and buſineſs to uſe and practiſe; for theſe bring water to the King, and to the older Bees that cannot travail.

The elder ſort if they be of a ſtrong and robuſtious conſtitution, are choſen for the guard of the Kings perſon, as the fitteſt perſons to be about him, in reſpect of their approved worth, faithful dealing, and uprightneſs of conſcience, for the ordering and diſpoſing of all matters. Some give Phyſick to thoſe that are ſick, by making and giving to them a medicinal aliment of Honey, that is drawn from Aniſe, Saffron and *Hyacinthes* But if any through age or ſickneſs chance to die, then they whoſe office it is to carry forth the dead bodies to burying do forthwith flock together, carrying the dead body of their brother on their ſhoulders, as it were on a Beere, leſt the pure Honey-combs might be tainted with any uncleanlineſs, ſtink, or naſtineſs.

Bees have alſo their Ambaſſadours and Orators, ſent with commiſſion or authority, and put in truſt to deal in their Princes affairs, their old beaten Souldiers, their Pipers, Trumpetters, Horn-winders, Watchmen, Scout-watches, and Sentinels Likewiſe Souldiers ever in a readineſſe to defend, and look to their Hony-wealth and goods, as if it were a City committed to their truſt and valiancy, and theſe do puniſh, torment, and throw to the ground all flying Theeves and Worms, that dare invade ſecretly by any cunning paſſage, or mine into their manſions. And that they might bear the world in hand, that they are no privy or ſecret Theeves in their flying, they make a noyſe and humming, which together with their flight, is heard both to begin and end: Which ſound, whether it proceedeth from the mouth, or from the motion of their wings, *Ariſtotle* and *Heſychius* do much vary and contend.

Their Pipers and horn-blowers do *edere Ziggon*, as *Heſychius* ſaith (the Engliſhmen term it *Sing*) and that they make to be the watch-word and privy token, for their watch and ward, ſleep, and daily labour. They love their King ſo entirely, that they never ſuffer him to goe abroad alone, but their Army being divided into two parts, and by heaps winding themſelves round, they do as it were encloſe and fence him on all ſides. If in any journey the King hap to wander from his company, and cannot be found, being driven away by the force of ſome ſtormy windes or weather, they all forthwith make a privy ſearch, and with their quick-ſenting, perſue and follow the chaſe ſo long, untill he be certainly found; and then becauſe he is tyred with flying, and the tediouſneſs of tempeſts, the common ſort lift him upon their wings, and ſo triumphantly convey him home as it were in a Chariot. But if he die by the way, then they all mournfully depart, every one to his own place ſeparating themſelves, or peradventure for a while, they work up their Honey-combes not yet finiſhed, but never make any more Honey; So that at length, growing to be lazy, ſickly, waſted, conſumed and diſtained with their own filth and corruption, they all miſerably periſh. For they cannot poſſible live without a King, againſt whom, none is ſo hardy as to lift up his finger to offer him any violence, much leſs to conſpire his deſtruction, unleſs he (after the faſhion of *Tyrants*) do overthrow and turn all things upſide down, after his own will and luſt, or neglecting careleſly the Weal publique, ſetteth all upon ſix and ſeaven. Yea, if he accuſtom himſelf to go often abroad, (which he cannot do without the great hurt and prejudice of his Citizens) they do not by and by kill him; but they take from him his wings, and if he then amend his life and look better to his office, they ſingularly affect and honour him.

When the King by flying away hath left his Bees, they fetch him again, and being a fugitive from his Kingdom, they follow him amain by his ſmell, as it were with hue and cry, (for amongſt them all the King ſmelleth beſt) and ſo bring him back to his Kingly houſe. None dare venture out of his own lodging firſt, nor ſeek his living in any place, except the King himſelf firſt going forth, do direct them the way of their flight. For I am hardly of *Ariſtotles* minde, who affirmeth that the King never cometh abroad, but when the whole ſwarm doth, which is ſeldom ſeen. But if by reaſon of his tyranny, cruelty, and violent rule, they be forced to ſeek ſome other dwelling places, then a few days before the time appointed, there will be heard a ſolitary, mournful, and peculiar kinde of voice, as it were of ſome trumpet, and two or three days before they flie about the mouth of the Hive; ſo when all things are in a readineſs for their flight, being all aſſembled, they flie all ſpeedily away, and kill the Tyrant (whom they left behinde) if he attempt to follow them But a good King they never forſake; and if at any time he pine and fall away by reaſon of ſickneſs, any plague, or murrain, or through old age, all the meaner ſort do make mone, the whole rout and multitude of Senators and Aldermen do greatly bewail him, not conveying any meat into their Hives, nor yet looking out of doors for meer grief, filling the whole houſe with ſorrowful hummings and laments, and gathering themſelves by heaps about the carkaſs of the dead King, they do with great noiſe tragically mourn for him. Neither doth continuance of time mitigate or take away their grief, but at length all of theſe faithful friends, partly through grief, and partly through famine, they are clean conſumed and brought to death.

Whileſt they have a King, the whole ſwarm and company is kept in awful order, but he being gone, they go under the protection of other Kings. They have not many Kings at once, neither can they endure uſurpers, overthrowing their houſes, and rooting out their ſtock and family. And if in one ſwarm there be two Kings, (as ſometimes it falleth out) then one part adhereth to the one King, and the other ſide cleaveth to the other, ſo that ſometimes in one hive you ſhall finde Honey-combes of ſundry forms and faſhions: where they behave themſelves ſo honeſtly and neighbourly, that the one meddleth not with the others charge and buſineſs, having no minde to enlarge their Empire, to entice, draw, or win by fair means the ſubjects of the other ſide, but every one being obedient to his own King without contradiction. They honour him ſo highly, that being loſt they complain; being decrepit, they preſerve and keep him; being weary, they carry him round about with them; being dead, they bewail him with all funeral pomp and heavineſs, yeelding up at length even their very lives for an aſſurance of their loves and faithful dealings. Oftentimes they arrear deadly war againſt ſtrangers born, for the Honey that they have ſtoln from them, as for the catching and ſnatching up afore-hand thoſe flowers whereon they purpoſed to ſit on; ſo that ſometimes the quarrel is determined by dint of ſword in a juſt battail. Oftentimes again they wrangle about their Honey-combes and dwelling houſes, but then the deadly and unappeaſeable war is, when the contention is about the life, crown, and dignity of their King, for then they beſtir themſelves moſt eagerly, defending him moſt valiantly, and receiving the darts or ſtings that are bended againſt him, with an undanted courage, by the voluntary and thick interpoſing of their own bodies, betwixt the darts and the perſon of their King.

Neither are Bees only examples to men of Political prudence and fidelity, but alſo preſidents for them to imitate in many other vertues. For whereas Nature hath made them *Zooa agelaia*, that is, creatures living in companies and ſwarms, yet do they all things for the common good of their own rout and multitude, excepting ever the Drones and Theeves, whom if they take tripping in the manner, they reward with condign puniſhment. Their houſes are common, their children common, their laws and ſtatutes common, and their countrey common. They couple together without queſtion as Camels do, privily and apart by themſelves, which whether it proceed of modeſty, or be done through the admirable inſtinct of Nature, I leave it to the diſpute and quaint reſolution of thoſe grave Doctors, who being laden with the badges and cognizances of learning, do not ſtick to affirm that they can render a true reaſon even by their own wits, of all the cauſes in nature, though never ſo obſcure, hid and difficult.

Flies and Dogs do far otherwiſe, whoſe impudency is ſuch, that having no regard of times, perſons, or places, they will not give place, or be disjoyned. Yea the *Maſſagets* (as *Herodotus* writeth) having their quiver of arrows on their carts, they dealt with their wives very unſeaſonably, and though all men beheld it, yet they moſt impudently contemned it. And that which is worſer, this beaſtly faſhion is crept amongſt the uſurpers, or at leaſt profeſſors of the Chriſtian name, who ſhame not openly to kiſs and embrace, yea even to play and meddle with filthy whores and brothelly queans. Bees ſurely will condemn theſe kinde of people of beaſtial impudency and wanton ſhameleſneſs; or cauſing them to bluſh if they have any grace, will teach them repentance. Neither are they altogether ſuch creatures as cannot endure or away with muſick, (which is the Princeſs of delights, and the delight of Princes) as many unlearned people cannot, but are exceedingly delighted with tune in any harmony wherein is no jarring, ſo the ſame be ſimple and unaffected.

And although they have not the skill to daunce according to due time, order and proportion in Muſick, as they ſay Elephants can, yet do they make ſwifter or ſlower their flight, according to the Trumpetors minde, who with his ſharp and ſhrill ſound cauſeth them to beſtir themſelves more ſpeedily; but beating ſlowly and not ſo loud upon his braſen inſtrument, maketh them more ſlow, and to take more leiſure. Neither hath Nature made them only the moſt ingenious of all living creatures, but by diſcipline hath made them tame and tractable. For they do not only know the hand and voice of the Honey-man, or him that hath the charge and ordering of the ſame, but they alſo ſuffer him to do what liketh him beſt: which every man muſt needs confeſs to be an argument of a generous and noble diſpoſition, thus to undergo the rule of their Over-ſeers and Surveyors, but the hand and diſcipline of a ſtranger they will by no means endure.

As for œconomical vertues they excel alſo, and namely for moderate frugality and temperance, not profuſely and prodigally waſting and devouring the great ſtore of Honey which they gathered in the Summer ſeaſon, but they ſuſtain themſelves therewith in Winter, and that very ſparingly: And ſo whileſt they feed upon few meats, and thoſe of the pureſt ſort, they purchaſe long life, (the reward of ſobriety.) Neither are they ſo niggardly and ſordidous minded, but when as they have gathered more Honey then their number can well ſpend, they communicate and impart ſome very liberally amongſt the Drones. As for their cleanlineſs theſe may be certain arguments, that they never exonerate nature within their hives, (except conſtrained thereto by ſome ſickneſs, foul weather, and for ſome urgent neceſſity) that they convey away the dead carkaſſes, that they touch no rotten nor ſtinking fleſh, or any other thing, no herb that is withered, nor no ill ſenting or decayed flowers.

They kill not their enemies within their hives, they drink none but running water, and that which is throughly defecated: they will not dwell in houſes impure and foul, ſluttiſh, black, or full of any feculent or dreggy refuſe, and the excrements of the labourers and ſickly, they gather on a heap without their pavilions, and aſſoon as their leiſure ſerveth it is carryed clean away. Concerning their temperance and chaſtity, (although it hath been partly touched before,) yet this I will add, that it is wonderful what ſome men have obſerved. For whereas all other creatures do couple in the open ſight of men, the Elephant only excepted, and Waſps likewiſe not much differing in kinde, do the ſame: yet Bees were never yet ſeen ſo to joyn together, but either within their hives very modeſtly they apply themſelves to that buſineſs, or elſe abroad do it without any witneſſes. And they are no leſs valiant then modeſt and temperate, *Dum corpora bello objectant, pulchramque petunt per vulnera mortem.* Their war is either civil or forain. Of the former there be divers cauſes, that is to ſay; the multitudes of their Dukes or Captains lying in wait to betray both King and Kingdom: ſcarſity of victual, ſtraightneſs of place and room, corruption of manners and idleneſs. For if they have no Dukes, then it is expedient (as other whiles it happeneth) they ſtay the overplus, leſt the number of them growing too great, either violence might be offered to the King, or the Common drawn to ſome ſedition.

They kill them moſt of all, when as they have no great ſtore of young Bees to plant any new Colonies, overthrowing and ſpoiling withall their Honey-combs (if they have any.) They execute alſo Theeves and Drones, ſo often as they have not room enough to do their buſineſs in, (for they hold the more inward part of the Hive,) ſo taking from them at one time, both their Honey-combs and meat. The ſcarſity and lack of Honey, cauſeth them alſo to be at deadly feud, ſo that the ſhort Bees do encounter the long with might and main. In the which bickering, if the ſhort be Conquerors, it will be an excellent Swarm, but if fortune ſmile on the long Bees ſide, they live idlely, making never any good Honey. Whoſoever getteth the day, they are ſo given to rapine and revenge, as they take no priſoners, nor leave any place to mercy, but commit all to the ſword.

Now concerning their forain wars, I muſt ſay they give place to no other living creature, either in fortitude, or hardy venturing: and if either men, four-footed beaſts, birds, or Waſps, do either hinder, diſquiet, or kill any of them, ſo that they be not well contented, againſt all theſe they oppoſe themſelves very ſtoutly, according to their power wounding them. They hate extreamly adulterous perſons, and ſuch men as be ſmeared with any Ointment, thoſe that have curled or criſped hair (as alſo all unfaithful and baſe raskally people) and all thoſe that wear any red clothes of the colour of bloud: as contrariwiſe they love and reverence exceedingly their Maſters, Keepers, Tutors, Defenders, and Maintainers: ſo that ſitting upon their hands, they do rather tickle and lick them in ſporting wiſe, then either wound or hurt them, though never ſo little with their ſting. Yea theſe men may ſafely without any touch of hurt, and without any covering to their hands, gather together the ſwarms in a very hot Summer; yea, handle, place them in order, heap up together, ſit or ſtand before their Hives, and with a ſtick take clean away Drones, Theeves, Waſps, and Hornets.

If any Souldier loſeth his ſting in fight, like one that had his Sword or Spear taken from him, he preſently is diſcouraged and deſpaireth, not living long, through extremity of grief. Going forth into the field to fight, they ſtay till the watchword be given, which being done, they flock in great heaps about their King (if he be a good one) ending all their quarrell in one ſet battel. In their order of fighting, how great vertue, courage, ſtrength, and nobleneſs theſe poor creatures ſhew, as well we our ſelves can teſtifie, and they better who have aſſured us by their writings, that whole Armies of armed men have been tamed by the ſtings of Bees, and that Lions, Bears, and Horſes, have been ſlain by means of them. And yet (how fierce and warlike ſoever they ſeem to be,) they are appeaſed and made gentle with continual or daily company, and unleſs they be too much netled and angred, they live peaceably enough without any great trouble, never hurting any one maliciouſly or deceitfully, that ſtandeth before their Hives. If I ſhould go about to declare at large their ingeny, natural inclination, cunning workmanſhip and memory; I ſhould not only give unto them with *Virgil*: *Particulam auræ divinæ*, but alſo *hauſtus mentis æthereæ*, and (*liceat Pythagoricè errare*,) the *Metempſachooſis* of that ingenious Philoſopher. For after that they are incloſed in a clean and a ſweet hive, they gather out of gummy and moiſt liquor yeelding trees a kinde of glutinous ſubſtance, thick, clammy and tough, (called of the *Latines*, *Camoſis*, and of the *Greeks*, *Mitys*,) eſpecially from Elms, Willows, Canes or Reeds, yea even from ſtones; and this they lay for the firſt foundation of their work, ſo covering it all over as with a hard cruſt at firſt, bringing to it afterwards another layer of *Piſſocera*, which is a kinde of juyce of Wax and Pitch, made with Gum and Roſin, and over that again they lay *Propolis*, which we call Bee-glew.

In this ſame three-fold tilie, and ſure ground-work thus artificially begun, they do not only laugh to ſcorn, jeſt at, and mock the eyes of the over-curious ſpectators of their Common-wealth and works, but that which no man conſiders, they do hereby defend both themſelves and theirs, againſt rain, cold, ſmall vermin and beaſts, and all their enemies. Then after this they build their Combes, with ſuch an Architectonical prudence, that *Archimedes* in reſpect of them ſeems to be no body. For firſt of all they ſet up the cells of their Kings and Princes in the higher place of the Honey-combes, being large, fair, ſumptuous, ſtately and lofty, being cunningly wrought, of the moſt tried, pureſt and refined Wax, trenching them round for the greater defence of the Regal Majeſty, with a mound and encloſure as it were with a ſtrong Wall, Bulwark, or Rampire.

And as Bees in regard of their age and condition, are of three ſorts, ſo likewiſe do they divide their Cells: for to the moſt ancient they appoint houſes next to the Court, (as thoſe that are the fitteſt to be of his privy Councel, and guarders of his Perſon) next to theſe are placed the young Bees, and thoſe that be but one year old. And they of middle years and ſtronger bodies, are lodged in the uttermoſt rooms, as thoſe that are fitteſt and beſt able to fight for their King and Countrey. Yet *Ariſtotle* ſaith, that Bees in the making of their Tents or Cells, do firſt of all provide for themſelves, and next for their King and his Nephews, and laſtly for the Drones. And as in the fabricature of their Honey-combes, they make the faſhion according to the magnitude and figure of the place, faſhioning it either orbicular, long, ſquare, ſword-like, or foot-like, *&c.* according to their own liking, running out ſometimes in length eight foot: ſo their little Cells contrariwiſe, are framed after a certain form in a Geometrical proportion and meaſure; for by rule they are juſtly Sexangular, and capable enough to hold the tenant.

The whole Combe containeth four orders of Cells; the firſt the Bees occupy; the next the Drones poſſeſs; the third, thoſe that are called of the *Greeks*, *Chadoones*; of the *Latines*, *Apum ſoboles*, (call them if you pleaſe *Schadones*.) The laſt is appointed for the room of Honey-making. There be ſome who conſtantly aver, that the Drones do make combes in the ſame hive the labouring Bees do, but that they lack the skill and power of mellification, it being uncertain whether this comes to paſs either through their groſſeneſs and big-bellied fatneſs, or through their ſetled and natural lazineſs. And if through the weightineſs of the Honey the combes begin to ſhake and wag, and to lean and bend as though they were ready to fall, then do they rear them up, and under-prop them with pillars made Arch-wiſe, that they may the more readily diſpatch their buſineſs, and execute their charges, (for it is neceſſary that to every combe there be a ready way.)

In ſome places, as in *Pontus*, and in the City of *Amiſus*, Bees make white Honey, without any combes at all, but this is ſeldom ſeen. And if a man would conſider the rare and admirable contexture and fabrick of their Honey-combes, far excelling all humane Art and conceit, who would not ſubſcribe with the Poet, *Eſſe Apibus partem divinæ mentis, & hauſtus æthereos?* who will deny them (I ſay) either imagination, fantaſie, judgement, memory, and ſome certain glimpſe of reaſon? But I will not diſpute of this, neither am I of *Pythagoras* minde, who conceited that the ſouls of wiſe men, and of other ingenious creatures, departed into Bees. But whoſoever will diligently examine how they divide their labours, as ſome to make up the combes, ſome to gather Honey, to heap together their meat, to trim and dreſs up the houſes, to cleanſe the common draught, to under-ſhore the ruinous walls, to cover thoſe places wherein any thing is to be kept, to draw out the very ſtrength of the Honey, to digeſt it, to carry it to their cells; to bring water to the thirſty labourers, to give food at ſet and appointed hours to the old Bees that ſit to defend their King with ſuch over-ſight and painful regard, to drive away Spiders, and all other enemies; to carry forth the dead, (that no ſtink or ill ſavour hurt,) every one to know and go to his own proper cell, and generally, all of them not to ſtray far from home to ſeek their living; and when the flowers are ſpent neer their lodgings, to ſend out their eſpials to look for more in places further diſtant, to lie with their faces upward under the leaves when they have ſet forth any voyage by night, leſt their wings being much moiſtened by the dew, they ſhould come tardy home the next day; to ballance and poyſe their light bodies with carrying a ſtone in ſtormy weather, and when there is any whirl-winde, to flie on the further ſide of the hedge, for fear leſt either they might be diſturbed, or beaten down by the boyſterous violence thereof. Whoſoever (I ſay) will duly conſider all this, muſt needs confeſs, that they obſerve a wonderful order and form in their Common-wealth and government, and that they are of a very ſtrange nature and ſpirit.

I had almoſt omitted to ſpeak of that natural love which they bear to their young, a great vertue, and ſeldom ſeen in the parents of this age. For Bees do ſit upon their combes (when they have laid their increaſe) almoſt like unto birds; neither will they ſtir from thence but in caſe of pinching hunger, returning out of hand to their breeding place again, as though they were afraid leſt that by any long ſtay and abſence, the work of their little cell might be covered over by ſome Spiders web (which often happeneth) or the young by taking cold might be endangered. Their young ones be not very nice or tender, nor cockeringly brought up, for being but bare three days old, as ſoon as ever they begin to have wings, they enjoyn them their task, and have an eye to them that they be not idle, though never ſo little. They are ſo excellent in divination, that they even feel aforehand, and have a ſenſe of rain and cold that is to come, for then (even by Natures inſtinct) they flie not far from home: and when they take their journey to ſeek for their repaſt, (which is never done at any ſet and ordinary time, but only in fair weather) they take pains continually and diligently without any ſtay, being laden with ſuch plenty of Honey, that oftentimes being over-wearied, they faint in their return to their own private cottages, not being able to attain them. And becauſe ſome of them in regard of their roughneſs are unfit to labour, by rubbing their bodies againſt ſtones and other hard matter they are ſmoothed, afterwards addreſſing themſelves moſt ſtoutly to their buſineſs. The younger ſort beſtir them right doubteſy without dores bringing to the hive all that is needful. The elder look to the family, placing in due order that Honey which is gathered and wrought by the middle aged Bees. In the morning they be all very ſilent, till one of them awaken all the reſt with his thrice humming noiſe, every one buſtling himſelf about his own proper office and charge. Returning at night, they are as it were in an uproar at the firſt, and after that they make a little muttering or murmuring among themſelves, until the principal Officer appointed for the ſetting of the watch, by his flying round about, and his ſoft and gentle noiſe, doth as it were covertly and privily charge them in their Kings name to prepare themſelves to reſt; and ſo this token being given, they are as ſilent as fiſhes, ſo that laying ones ear to the mouth of the hive, you ſhall hardly perceive any the leaſt noiſe at all: ſo dutiful they are to their King, Officers, and Rulers, repoſing themſelves wholly in his books, favour, and pleaſure. And now I will intreat of their excellency and uſe.

The uſe of Bees,

Whereas the Almighty hath created all things for the uſe and ſervice of Man, ſo eſpecially among the reſt hath he made Bees, not only that they ſhould be unto us patterns and preſidents of political and œconomical vertues, (of the which before I have diſcourſed) but even Teachers and Schoolmaſters inſtructing us in certain divine knowledge, and like extraordinary Prophets, premonſtrating the ſucceſs and event of things to come. For in the years 90. 98. 113. 208. before the birth of our bleſſed Saviour, when as great ſwarms of Bees, lighted in the publique and Ox-market, upon the houſes of private Citizens, and the Chappel of *Mars*, many conſpiracies and treaſons were intended againſt the State at *Rome*, with which the Common-wealth was welnigh deceived, inſnared, yea and overthrown. In the days of *Severus* the Emperour, Bees made their combes in the Enſignes, banners and ſtandards of the Souldiers, and moſt of all in the camp of *Niger*, after which enſued divers conflicts betwixt the Armies of *Severus* and *Niger*, Fortune for a time imparting her favours equally to them both, but at length *Severus* ſide carryed away the bucklers. Swarms of Bees alſo filled the Statuaes which were ſet up in all *Hetruria*, repreſenting *Antonius Pius*, and after that they fell in the camp of *Caſſius*, and what hurly burlies after that followed, *Julius Capitolinus* will reſolve you. At which time alſo a great number of *Romans* were intrapped and ſlain by an ambuſh of *Germans* in *Germany*, *P. Fabius* and *Q. Elius*, being Conſuls. It is written that a ſwarm lighted in the tent of *Hoſtilius Rutilus*, who was in the Army of *Druſus*, ard did there hang after ſuch a manner, as they did encloſe round his Spear which was faſtened to his Pavilion, as if it had been a rope hanging down, *M. Lepidus* and *Munatius Plancus* being Conſuls. Alſo in the Conſulſhip of *L. Paulus* and *Caius Metellus*, a ſwarm of Bees flying up and down, preſignified the enemy at hand, as the Soothſayers well divined. *Pompey* likewiſe warring againſt *Cæſar*, when for the pleaſuring of his friends he had ſet his Army in aray, going out of *Dyrrhachium*, Bees met with him, and darkened even the very Ancients with their great multitude. We read in the Hiſtories of the *Helvetians*, how that in the year of our Lord God 1385. when *Leopold* of *Auſtrich* prepared to go againſt *Sempach* with an Hoſt of men, being yet in his journey, a ſwarm of Bees fled to the Town, and there reſted upon a certain great Tree called *Tilia*; whereupon the vulgar ſort rightly foretold the coming of ſome ſtrange people to them. So likewiſe *Virgil* in the ſeventh Book of his *Æneids*, ſeemeth to deſcribe the coming of *Æneas* into *Italy* after this manner.

——————Lauri
Hujus Apes ſummum denſæ (mirabile dictu)
Stridore ingenti liquidum trans æthera vectæ
Obſedere apicem, et pedibus per mutua nexis
Examen ſubitò ramo frondente pependit.
Continuò vates: examen cernimus (inquit)
Adventare virum.——————

That is,

A tale of wonder to be told, there came a ſwarm of Bees,
Which with great noyſe within the air a Bay-tree did attain,
Where leg in leg they cleaped faſt, and top of all degrees
O're-ſpread, and ſuddenly a hive of them remaind
There hanging down: whereat the Prophet ſaid,
Some ſtranger here ſhall come to make us all afraid.

Which thing alſo *Herodotus*, *Pauſanias*, and divers other Hiſtoriographers, have with greater obſervation then reaſon confirmed. *Laon Acræphnienſis*, when he could not finde the Oracle of *Trophonius*, by a ſwarm flying thither he found the place. In like ſort, the Nurſes being abſent, *Jupiter Melitæus*, *Hiero* the *Syracuſan*, *Plato*, *Pindarus*, and *Ambroſius*, were nouriſhed by Honey, which Bees by little and little put in their mouths, as *Plutarch*, *Pauſanias*, and *Textor* are Authors. *Xenophon* likewiſe in his *Oeconomicks*, termeth Honey-making the Shop of vertues, and to it ſendeth mothers of Houſholds to be inſtructed. Poets gladly compare themſelves with Bees, who following Nature only as a School-miſtreſſe, uſeth no Art. So *Plato* ſaith, that Poets ruled by Art, can never perform any notable matter. And for the ſame reaſon *Pindarus* maketh his brags, that he was ſuperior to *Bacchilides*, and *Simonides*, having only Nature, not Art to his friend. Bees unleſſe they be incenſed to anger, do no hurt at all, but being provoked and ſtirred up they ſting moſt ſharply: and ſuch is the diſpoſition and naturall inclination of Poets; and therefore in his *Mino* ſtrictly enjoyneth, that thoſe who love their own quiet, muſt take great heed that they make no wars either with Poets or Bees. Finally, they have ſo many vertues which we may imitate, that the *Egyptians*, *Chaldeans*, and *Grecians*, have taken divers Hieroglyphicks from them. And he that will read over *Pierius*, ſhall there finde ſtore of Emblems of them.

The Countrey people in like manner have learned of them *Aeromantie*, that is, Divination of things by the air, for they have a fore-feeling and underſtanding of rain and windes aforehand, and do rightly prognoſticate of ſtorms and foul weather; So that then they flye not far from their own homes, but ſuſtain themſelves with their own Honey-ſuck already provided. Which being true, we muſt then think it no ſtrange matter, that *Ariſteus*, *Philiſtius*, *Ariſtomachus Solenſis*, *Menus* the *Samnite*, and ſix hundred others that have writ of the Nature of Bees, bidding adiew to all thoſe pleaſures and delicacies that are found in Cities, for fifty and eight yeers ſpace together, inhabited the Woods and Fields, that they might more exactly come to the knowledge of their order of living, and naturall diſpoſitions, leaving it as a monument for poſterity to imitate. But what their bodies do work in ours, I judge worth the labour and pains taking to let you underſtand, that we may be aſſured there is nothing in Bees, but maketh to the furtherance of our health and good.

Medicinal uſes.

Firſt therefore, their bodies being taken newly from the hives and bruiſed, and drunk with ſome diuretical wine, cureth mightily the Dropſie, breaketh the ſtone, openeth the obſtructed paſſages of the Urine, and helpeth the ſuppreſſion thereof. Being bruiſed, they cure the wringings and gripings of the belly, if they be laid upon the place affected: and if any have drunk any poyſonous Honey, Bees being likewiſe drunk do expell the ſame. They mollifie hard ulcers in the lips, and being bound to the part, they cure a Carbuncle and the Bloody-flixe, amending alſo the crudity of the ſtomack, and all ſpots and flecks in the face, being tempered with their own made Honey; as both *Hollerius*, *Alexander*, *Benedictus*, and *Pliny* have written.

Galen affirmeth, that if you take live Bees out of their Combes, and mix them with Honey wherein Bees have been found dead, you ſhall make an excellent Oyntment to be uſed againſt the ſhedding and falling of the hair in any place of the head, cauſing it to grow again, and come afreſh. *Pliny* again willeth us to burn many Bees, commixing the aſhes with Oyl, and therewith to anoynt the bald places; but we muſt (ſaith he) take great heed that we touch no other place neer adjoyning. Yea, he affirmeth, that Honey wherein is found dead Bees, is a very wholſome medicine, ſerving for all diſeaſes. *Erotis*, cap. 61. *De morb. muliebrib.* commendeth highly the aſhes of Bees beaten and tempered with Oyl, for the dealbation of the hair.

Bees alſo are very profitable, becauſe divers living creatures are nouriſhed by, and do feed full ſavorly on their Honey, as the Bear, the Badger or Brock, Lizards, Frogs, Serpents, the Woodpecker or Eat-bee, Swallows, Lapwings, the little Titmouſe, which of ſome is called a Nunne, becauſe his head is filletted as it were Nun-like, the Robin-red-breaſt, Spiders, and Waſps, as *Bellonius* hath well obſerved.

But to what end (you will ſay) ſerveth their ſting, againſt whoſe poyſon *Pliny* knew no remedy? I muſt needs confeſſe truely that which cannot be denyed, that the ſtings of Bees are ſometimes venemous, but that is when either they are mad and raging, and be exceedingly diſquieted by means of anger, or ſome vehement Feaver, for otherwiſe they do not ſting. but prick but a little: and therefore *Dioſcorides* never made mention of the ſtinging of Bees, ſuppoſing it very unmeet for a man to complain of ſo ſmall a matter as the ſting of a ſilly Bee. But yet they that have ſucceeded him, have obſerved pain, redneſſe, and ſwellings, as companions and effects of their malice, eſpecially if the ſting do ſtick in the fleſh, which if it do very deep, then death hath ſometimes followed, as *Nicander* writeth in his *Theriacis*. In like manner the people of the old World (that we may prove the ſting of Bees to be converted to ſome good uſe) did (as *Suidas* writeth) puniſh thoſe perſons who were found guilty of couſenage, and deceitfull counterfeiting of merchandize, after this ſort: Firſt, they ſtripped the offender ſtark naked, anoynting his body all over with Honey, then ſetting him in the open Sun with his hands and feet faſt bound, that by this means being tormented with Flies, Bees, and ſcorching beams of the Sun, he might endure puniſhment, pain, and death, due to his lewd and wicked life. With which kinde of puniſhment and torture, the *Spaniards* do grievouſly vex the poor naked Iſlanders of *America* at this day, (now called the *Weſt-Indies*) who are under their rule and government, not for juſtice ſake, (as thoſe Ancients did) but for ſatisfaction and fulfilling of their barbarous wills, and beaſtly tyranny, that they might ſeem to be more cruell, then cruelty it ſelf.

Nonius ſaith, that if the herb Balm (called *Apiaſtrum*) be beaten, and anoynted with Oyl upon the ſtinged place, that there will enſue no hurt thereby. *Florentius* counſelleth the gatherer of Honey, to anoynt himſelf with the juice of Marſh-mallowes, for by that means he may ſafely and without fear take away the Combes. But the juice of any Mallow will do as much, and eſpecially if it be mixed with Oyl; for it both preſerveth from ſtinging, and beſides it remedieth the ſtinged. But admit that Bees by their ſtinging do vexe and diſeaſe us, yet notwithſtanding the dead Bees ſo found in the Honey do ſpeedily bring cure to that hurt, if they be duly applyed, abating and taking away all the pain and poyſon. What ſhould I ſay? No Creature is ſo profitable, none leſſe ſumptuous. GOD hath created them, and a little money and coſt will maintain them, and ſmall proviſion will content them. They live almoſt in all places, yea, even in Forreſts, Woods, and Mountains; both rich and poor by their good husbandry do gather good cuſtoms and penſions by them, they paying (as all men know) very large rents for their dwelling houſes; and yet for all their tribute they pay, a man need neither keep one ſervant the more for the gathering of it, nor ſet on pot the oftner. *Merula* ſaith, that *Varro* gathered yeerly five thouſand pound weight of Honey: and that in a ſmall Village of *Spain*, not exceeding one acre of ground, he was wont to gain by Honey there gathered, ten thouſand Seſterties, which is of our *Engliſh* Coyn about fifty pounds. We are furniſhed alſo out of their work-houſes or Shops, with Waxe, *Sandracha*, Bee-glew, Combs, and dregs of Wax, which no Common-wealth can well ſpare. To ſpeak nothing of the examples of their vertues and noble properties, being no leſſe wholſome for the ſoul, then theſe others are for the good proviſion and maintenance of our life, and for nouriſhment of our bodies neceſſary and commodious.

Now for the conſervation of Bees, it is very meet (as *Pliny* writeth) that we come by them lawfully, and by honeſt means, that is, either by gift, or by buying of them; for being taken away by theft, they will not proſper with us: even as the hearb called Rue being ſtolne, will very hardly or never grow. Furthermore, to keep theſe good pay-maſters, and to make them in love with you, you muſt remove from their Hives mouthes, unlucky, miſchievous, and deceitfull people, and idle perſons that have nothing to do, cauſing them to ſtand further off: As alſo all thoſe that are diſtayned with whoredome, or infected with the diſeaſe called Gonorrhœa, or the fluxe of menſtrues, bathes, or any thing that ſmelleth of ſmoak, mud, dung, or ordure of Cattell, men or beaſts, houſes of Office, ſinks, or kitchens. Mundifie and correct the air oftentimes, infected with the breath and vapour of Toads and Serpents. by burning of Balm, Thyme, or Fennel; having great care to keep them neat, clean and quiet. Deſtroy all Vermine, and ſeekers to prey upon their Honey, robbers, pillers and pollers, and if at any time they be ſick, give them phyſick.

Now the ſigns of their unhealthineſſe, as of all other living creatures, are known by three things; that is, from the action offended, the outward affect of the body, and excrements. For their cheerfulneſſe being gone, ſluggiſh dulneſſe, a giddy and vertiginous pace, often and idle ſtanding before the mouth of the Hive, lack of ſtrength, wearineſſe, litherneſſe, languiſhing, and want of ſpirit to do any buſineſſe, deteſtation of Flowers and Honey, long watchings, and continuall ſleepings, unaccuſtomed noyſes and hummings, are ſure arguments, that Bees are not in good health. As alſo if they be ſomewhat rough, not fine and trim, dry and unpleaſant in handling, not ſoft, harſh, and rugged, not delicate and tender, if their Combes be infected with any manner of filthy, corrupt, and noyſome ſavour, and that their excrements melt, ſtink, and be full of worms, carrying dead carkaſes daily out of their houſes, that they have no regard to their Bees and Bee-hives, it is a certain token that they are ſick, and that ſome epidemicall, generall Peſtilence or plague rageth amongſt them, whereof that famous Poet *Virgil* hath very elegantly, but confuſedly touched ſome part, in the fourth Book of his *Georgicks*, in theſe following Verſes.

Si verò (quoniam lapſus Apibus, quoque noſtris
Vita tulit) triſti languebunt corpora morbo,
Illud non dubiis poteris cognoſcere ſignis.
Continuò eſt ægris alius color, horrida vultum
Deformat macies, tum corpora luce carentum
Exportant tectis, & triſtia funera ducunt.
Aut illæ pedibus connexæ ad limina pendent,
Aut intus clauſis cunctantur in ædibus omnes,
Ignaveque fame, & contracto frigore pigræ.
Tum ſonus auditur gravior, tractimque ſuſurrant.
Frigidus ut quando ſilvis immurmurat auſter,
Ut mare ſolicitum ſtridet refluentibus undis,
Æſtuat aut clauſis, rapidus fornacibus ignis.

In Engliſh thus;

The life of Bees is ſubject unto fall,
Their bodies languiſh with diſeaſes ſad:
This by undoubted ſigns diſcern you ſhall,
Their bodies then with other colour is clad.
A leanneſſe rough doth then deform their face,
Then doth the living bring dead bodies out,
And for their fellowes make a funerall place,
Mourning ſad exequies their dwellings all about,
Or elſe with feet in feet they hang upon
The threſhold of their Hive, or elſe abide
Cloſe within doors, not looking on the Sun,
Till ſloth by cold and famine their life up dry'd:
Then alſo is their ſound and voice more great,
Drawing ſoft, like a Southern winde in woods,
Or fire encloſed in burning furnace heat,
Or as int' Sea falls back the ſliding flouds.

And ſo the ſickneſſes of Bees being evidently known, plainly perceived, and cured, they will live many yeers, although *Ariſtotle*, *Theophraſtus*, *Pliny*, *Virgil*, *Varro*, *Columella*, *Cardan*, and finally all Authors, would make us beleeve, that they ſeldome attain to nine years, but never to ten. Although we know by good experience, knowledge of place, and the credible atteſtation of men worthy belief, that they have lived thirty years. Which only reaſon hath induced me to believe, that Bees (even by Natures appointment) are long lived, and that only with *Albertus* I only doubt, whether they die by means of old age.

I am not ignorant, how they are made away with the rage and violence of diſeaſes, and other enemies, but if they have all things furniſhed fit for the preſervation of their life, and prolongation of health, and the contrary far from them, I know no reaſon but that I ſhould conclude them long lived, yea, more durable then any other living Creature, and never to die, but that I may not deny their time and turn to be mortall. For they only do feed upon Honey, that immortall Nectar, ſent from heaven, and gathered from a divine dew (the very life and ſoul of all herbs, fruits, trees and plants.) Of whoſe nature, uſe and excellency, if you would know more, I muſt referre you to the learned writings of Phyſitians.

Of BEES, *called* DRONES *and* THEEVES.

The Names,

A Drone or a Dran in *Engliſh*, is of the *Latines* called *Fucus*, of the *Greeks Kephen*, and *Thronax*, of the *Illyrians Czeno*, of the *Germans Traen*, of the *Belgici Beſonder ſtrael*, of the *Spaniards Zangane*, of the *Italians*, *Ape che non fa mele*, of the *French Baradon*, and *Fullon*, of the *Pannonians* (now called *Hungarians*) *Here*, of the *Polonians Czezew*. This kinde of Bee is called *Fucus*, as ſome think, *quaſi Fur*, becauſe he doth *furtim mella devorare*, devour Honey by ſtealth: although it be more agreeable to truth that it is termed *Fucus*, becauſe he doth *Apibus fucum fraudemque facere*: And through the colour and pretence of keeping warm the Hives, he ſpendeth their ſtock and undoes all their Honey-making. And therefore for ſome to derive *Fucus* the *Latin* word from *Phagomai* the *Greek*, ſeemeth to be farre fetched: Some again will draw *Fucus*, *à fovendo*, *quia incubando apum juvant fœturas*, and this in my minde is as harſh as the former.

The Deſcription.

Many men make the Drone to be one of the four ſorts of Bees, which is very unadviſedly done, as ſome would make us beleeve: Becauſe they beſtow no pains in gathering the Honey, nor labour it throughly to have it perfectly wrought. He is twice ſo great as the common Bee, and greater then the Thief, ſo that in bigneſſe he eveneth, yea, ſurpaſſeth the King himſelf: and yet he attaineth unto this greatneſſe, not by the gift of Nature, but by his cuſtom and trade of life. For whereas Bees do prepare and make their Cells for the breeding of Drones: they make them leſſer then the Drones, and not here and there through the Hive, but only in the uttermoſt, and as it were in the baniſhed or moſt out-caſt place of all in the whole Camp and lodged Army. Beſides, the ſmall Worms of the Drones are far ſmaller at their firſt bringing forth, then thoſe that are of the Kingly race, and linage of their Dukes: Who yet at length grow greater then any of them all, in regard that by labour and travail, they waſte and diminiſh nothing of ſuperfluous matter, and thoſe groſſe humours, wherewith they abound, as alſo that both day and night (like Oxen lying at Rack and Manger) they gluttonouſly raven and ſtuffe themſelves with the Honey-liquor, which they again pay for full dearly, in time of any general dearth and ſcarſity of victuall and proviſion.

Further this is to be added, that the Drone is of a more ſhining black colour then the true labouring Bee, he is alſo greater then the greateſt, without ſting ſluggiſh, idle, ſlothfull, without heart or courage, cowardous, and unapt to war, not daring to venture life and limb in manly Martial trade, as the true legitimate Bees will.

Ariſtotle ſaith, that they breed and live amongſt the true Bees, and when they fly abroad, they are carryed ſcatteringly, here and there aloft in the air as it were, with ſome violence or tempeſt; ſo exerciſing themſelves for a time, they return from whence they came, there greedily feeding upon the Honey. Now why the Drones may be compared with the Dukes and Princes, in reſpect of their corporature, and Bees like unto them in their ſting, let us hear *Ariſtotles* reaſon. Nature would (ſaith he) there ſhould be ſome difference, leſt alwayes the ſame ſtock ſhould encreaſe one of another confuſedly, without order or conſideration, which is impoſſible: For ſo the whole ſtock would either be Dukes or Drones. And therefore the true Bees in ſtrength and power of engendring, and breeding, are comparable to their Dukes, and the Drones onely in greatneſſe of body reſemble them: to whom if you allow a ſting, you ſhall make him a Duke. Theſe Drones further of the *Grecians* are called *Cothouroi*, becauſe he putteth not forth any ſting: whereof *Heſiodus* hath theſe Verſes thus interpreted;

Ariſt. l. 3. de gener. Anim. c. 10.

Huic vero Dii ſuccenſent & homines quicunque otioſus
Vivat, fucis ac aculeo carentibus ſimilis ſtudio,
Qui apum laborem abſumant otioſi
Vorantes.——

In Engliſh thus;

Both God and men diſdain that man
Which Drone like in the hive,
Nor good, nor ill, endeavour can
Upon himſelf to live,
But idle is, and without ſting,
And grieves the labouring Bee
Devouring that which he home brings,
Not yeelding help or ſee.

So that either he hath no ſting at all, or elſe maketh no uſe of it for revengement. *Pliny* ſaith flatly, that they are ſtingleſſe, and would have them called imperfect Bees, and the famous Poet *Virgil* ſtyleth them, *Ignavum pecus*: that is, idle, and unprofitable, good for nothing. *Columella* maketh them a race or ſtock of a larger ſize, very like unto Bees, and accounteth them very aptly to be placed in the rank of ordinary ſorts of Creatures, of the ſame kinde and company with Bees. They ſuffer puniſhment and are ſcourged many times in the whole Bee-common-wealth, not only for pretence of idleneſſe, gluttony, extortion, and ravenous greedineſſe, to which they are too much addicted; but becauſe lacking their ſting, and by that defect, being as it were emaſculated, they dare not ſhew themſelves in publick.

Pliny doth not expreſſe their nature and quality. The Drones are ſtingleſſe and ſo to be reckoned imperfect Bees, and of the baſeſt ſort, taking their Originall from tired and worn out Bees, and ſuch as be paſt labour and ſervice, living only upon a bare penſion: we may call them the very ſlaves and bond-men of the true Bees, to whom they owe all due homage and ſubjection, wherefore they exerciſe their authority over them, thruſting them firſt out of doors by head and ſhoulders, like a company of drudges to their work; and if they be any thing negligent, not beſtirring themſelves quickly and lively, they give them correction, and puniſh them without all pity and mercy. For in the moneth of *June*, two or three Bees (eſpecially of the younger ſort) will hale out of the Hive one Drone, there beating of him with their wings, pricking and tormenting him with their ſtings, and if he offer any reſiſtance to their Lordly rule, then they violently caſt him down from the ſhelf or ſtep whereon he holdeth, down to the earth as though they would break his neck. Thus when they have glutted their wills, and puniſhed him at the full, they at length put him to a ſhamefull death, all which we have often beheld, not without great admiration and pleaſure.

Sometimes the Drones remain like baniſhed perſons, before the entrance of the Hive, and dare not venture to preſſe in. For three cauſes ſpecially the Bees do drive and caſt out the Drones: either when they multiply above meaſure, or when they have not place enough left for their labourers, or that they be pinched with hunger and famine, for lack of Honey. And as they carry a deadly hatred againſt the Drones, ſo to make it more apparent they will not hurt ſuch perſons as offer either to take away with their bare hands any of the Drones, and to caſt them away, yea, though they be in the greateſt heat of their fight. *Ariſtotle* in his ninth Book, *De hiſt. Animal.* Cap. 40 affirmeth, that Bees are engendred apart one from another, if their Captain liveth: but in caſe their King and Captain dies, ſome ſay they breed in the Bees Cells, and that of all others of this kinde, they are the moſt noble and couragious.

Their generation.

The young Drones are bred without any King, but the true younger Bees never: for they derive their Originall and petigree from the Kingly ſtock. Some will ſay that the young Drones do fetch their Originall from the flowers of the herb *Cerinthe* (deſcribed by *Pliny*, which is a kinde of Honeyſuckle, having the taſte of the Honey and Wax together) from the Olive tree and Reed; but this opinion is weakly grounded, and ſtandeth upon ſmall reaſon.

Ariſtotle affirmeth, that they proceed from the longer and bigger Bees, yea, and thoſe that are termed Thieves: which without queſtion he received either from the ancient Philoſophers, or ſome others that had the charge and were skilful of ordering Honey, that lived in his time. Some will have them to breed and come from putrefaction, as *Iſidore* from ſtinking and putrefied Mules: *Cardan* from Aſſes, *Plutarch* and *Servius* from Horſes. Otherſome are of opinion, that they firſt proceed of Bees, and that afterwards they degenerate baſtardlike from them, after they have loſt their ſtings, for then they become Drones: neither are they afterwards known to gather any Honey, but being as it were deprived of their ſtrength, they grow effeminate, ceaſing either to hurt, or to do any good at all.

Some again hold the contrary ſide, aſſuring us upon their knowledge, that the true labouring Bee fetcheth his beginning from the Drone, becauſe long experience (the Miſtreſs of Wiſdome) hath taught us, that there is yearly known to be the greater ſwarm, when there is the greater multitude of Drones. But this to me ſeemeth rather the deviſe and invention of ſome curious brain, then any true grounded reaſon. For becauſe that many Drones breed (as it cometh always to paſſe in good and plentiful years) therefore there ſhould be greater ſwarms, is no good conſequent: but contrariwiſe, becauſe the multitude of Bees do greatly increaſe through the moderateneſſe of the pure air, and the plenty of the Honey-dropping dew, and through the abundance of this mellifluous moiſture, there muſt needs follow a greater foiſon and ſtore of Drones: as the Philoſopher hath well obſerved. But admit that this be true, that whereas there is the greater encreaſe of Drones, there ſhould yearly enſue the more ſwarmings: yet muſt we not thereupon conclude, that Bees do owe, and ought to aſcribe their firſt original from Drones, but rather that they are indebted and bound in honeſty to the Drones, becauſe in time of breeding, they give much warmth and comfort to their young, (as *Pliny lib.* 11. *c.* 11. ſaith) conferring upon them a lively heat, fit for their encreaſe and proſpering. Some divide them into male and female, and that by coupling together they make a propagation of their kinde, although (as *Athenæus* writeth) neither Drones nor Bees were ever yet ſeen of any one to couple together.

But whereas Waſps, Hornets, and other Cut-waſted creatures that make any combes, and breed in the ſame, have been ſometimes (though ſeldom) ſeen, both by us and *Ariſtotle*, to joyn together, I can ſurely ſee no cauſe why we ſhould utterly take from them the uſe of *Venus*, though in that reſpect they be very modeſt and moderate.

I have before in the diſcourſe of their generation, ſaid, that the Bees do make the male kinde, and the Drones to be but the female; but ſith that in the of Honey-making, they puniſh them ſo ſharply after they have ejected them from poſſeſſion firſt, ſo that afterwards they put them to death, I can hardly be induced to believe that the Drones are but the female kinde, conſidering that one thing would eclipſe and overcaſt all thoſe reſplendent vertues which all men know to be in Bees, to deal thus cruelly with their Parents. To what uſe therefore ſerve they in Hives? Seeing *Virgil* in the fourth book of his Georgicks thus deſcribeth them;

Immuniſque ſedens aliena ad pabula fucus.

That is to ſay;

The Drones as free and bold doth ſit,
And waſt of others food commit.

Where *Feſtus* taketh *Immunis*, for lazy, idle, unſerviceable, unprofitable, and ſuch as are nothing worth, except perchance after the guiſe of wicked men, they ſo ſerve their own turns, as to live by the ſweat of other mens labours, and to bring out of order, or utterly ſeek to overthrow the whole frame of the Common-wealth.

Their uſes.

But the moſt approved Authors ſet down divers good uſe of Drones. For if there be but a few of them among the Bees, they make them the more careful about their affairs, and to look more duly to their task: not by their good example, (for they live in continual idleneſſe) but becauſe they might continue their liberality towards ſtrangers, they work the more carefully in their Honey-ſhop. And (if *Bartholemæus* do not deceive us) theſe Drones be not altogether idle: but they imploy themſelves about the building of the Kings Houſe, which they make large, ſtately, and very ſumptuous in the higher and middle part of the combes, being very fair to ſee to in reſpect of their covering.

So then they are but lazy, in reſpect of Honey-making and gathering: but if you look toward their Art or Science of building, they are to be accounted excellent deviſers of the frame and chief Maſters of the whole work. For as the Bees do faſhion out the combes of the Drones nigh the Kings Palace: ſo again, for the like counterchange of kindeneſſe, the Drones are the ſole inventors, and principal work-maſters of the Kings Court; for which cauſe both they and their off-ſpring, kinsfolks and friends, (if they have any) are bountifully rewarded of the whole ſtock of Bees, by giving them franckly and freely their diet and maintenance which coſteth them nothing.

The Lockers or holes of the up-grown Bees, are ſomewhat too large, if you reſpect the quantity of their bodies, but their combes leſſer; for thoſe they build themſelves, and theſe other are made by the Bees, becauſe it was not thought convenient and indifferent, ſo great a portion of meat to be given to ſuch vile labourers and hirelings, as was due to their own ſons and daughters, and thoſe that are naturally ſubjects.

Tzetzes, and ſome other *Greeks* do beſides affirm, that the Drones are the Bees Butlers or Porters to carry them water, aſcribing moreover to them a gentle and kindely heat, with which they are ſaid to keep warm, cheriſh and nouriſh the young breed of the Bees; by this means as it were, quickning them, and adding to them both life and ſtrength.

The ſame affirmeth *Columella* in theſe words. The Drones further much the Bees for the procreation of their iſſue, for they ſitting upon their kinde or generation, the Bees are ſhaped and attain to their figure, and therefore for the maintenance, education, and defence of a new iſſue, they receive the more friendly entertainment. And *Pliny lib.* 11. *c* 11. differeth not from him. For not only they are great helpers to the Bees in any architectonical or cunning deviſed frame (as he ſaith) but alſo they do good in helping and ſuccouring their young, by giving them much warmth and kindely heat, which the greater it is (unleſſe there be ſome lack of Honey in the mean ſpace) the greater will the ſwarm be.

In ſum, except they ſhould ſtand the Bees in ſome good ſtead, the Almighty would never have encloſed them both in one houſe, and as it were made them freemen of the ſame City. Neither doubtleſſe would the Bees by main force violently break in upon them, as being the ſworn and profeſſed enemies of their Common-wealth, except when their ſlaviſh multitude being too much increaſed, they might fear ſome violence or rebellion, or for lack of proviſion: at which time who ſeeth not, that it were far better the Maſter work-men, free Maſons, and Carpenters might be ſpared, then the true labouring Husbandman, and tiller of the earth? Eſpecially ſince that miſting theſe, our life is endangered for lack of meat, and other neceſſaries, and thoſe other for a time we may very well ſpare without our undoing, and for a need every one may build his own lodging. But as they be profitable members, not exceeding a ſtinted and certain number, ſo if they be too many, they bring a ſickneſſe called the Hive-evill, as well becauſe they conſume the food of the Honey-making Bees, as for that in regard of their extream heat, they choke and ſuffocate them.

This diſeaſe is by the Author of *Geoponicon* thus remedied. Moiſten with water inwardly the lid or covering of their Hive, and early in the morning opening it, you ſhall finde Drones ſitting on the drops that are on the covers, for being glutted with Honey, they are exceeding thirſty, and by that means they will ſtick faſt to the moiſt and dewie places of the cover: So that with ſmall ado, you may either deſtroy them quite, or elſe if you pleaſe, take away what number you liſt your ſelf. And if you will take away withall their young, who are not yet winged, and firſt pulling off their heads throw them among the other Bees, you ſhall beſtow on them a very welcome dinner. But what the dreaning of Drones portended, and what matter they miniſter in the Hieroglyphical Art, let *Apomaſuetus* reveal and diſcloſe out of the Schools of the *Egyptians* and *Perſians*. I think I have diſcharged my duty, if I have ſet down their true uſes, true nature, generation, degeneration, deſcription, and names.

Of Bees called Theeves.

Fur in *Latine*, or Theef in *Engliſh*, is by *Ariſtotle* called *Phoor*, of *Heſychius Phoorios*: from whence I take the *Latine* word *Fur* to be derived. Some have thought that Theeves are one proper ſort of Bees, although they be very great, and black, having a larger belly or bulk then the true Bee, and yet leſſer then the drones, they have purchaſed this theeviſh name, becauſe they do by theft and robbery devour Honey, belonging to others, and not to them. The Bees do eaſily endure, and can well away with the preſence of the Drones, and do as it were greet and bid one another welcome, but the Theeves they cannot endure, in regard that the Bees do naturally hate them, for in their abſence the Theeves privily and by ſtealth creep in, there robbing and conſuming their treaſure of Honey, ſo greedily and haſtily (without chewing) ſwallowing it down, that being met withall by the true Bees in their return homewards, and found ſo unweildy by means of their fulneſs, that they cannot get away, nor be able to reſiſt, but are ready to burſt again, they are ſeverely puniſhed, and for their demerits by true Juſtice put to death. Neither thus only do they prodigally conſume and ſpend the Bees meat, but alſo privily breed in their cells, whereby it often cometh to paſſe, that there are as many Drones and Theeves, as true and lawful Bees.

Theſe neither gather Honey, nor build houſes, nor help to bear out any mutual labour with Bees: for which cauſe they have Watch-men or Warders appointed to obſerve and overſee by night ſuch as are over-wearied by taking great and undefatigable pains in the day time, to ſecure them from the Theeves and Robbers, who if they perceive any Theef to be ſtoln in a doors, they preſently ſet upon him, beat, and either kill him outright, or leaving him for half dead, they throw him out. Oftentimes alſo it happeneth, that the Theef being glutted and over-cloyed with Honey, cannot flie away or get himſelf gone in time, but lyeth wallowing before the Hives entrance, until his enemies either in coming forth or returning home do ſo finde him, and ſo with ſhame, diſcredit and ſcoffing-ſcorn ſlay him.

Their uſes.

Ariſtotle appointeth no office, charge or buſineſſe to the Theef, but I think that he is ordained for this end, that he might be as it were a ſpur to prick forwards, and to whet and quicken the courage of the true Bees, when the other offer them any injury: and to ſtir and to encourage them to a greater vigilancy, diligence, and doing of right and juſtice to every one particularly. For I cannot ſee to what other purpoſe Theeves ſhould ſerve in a Chriſtian Common-wealth, or what uſe might be made of ſuch as lie in wait to diſpleaſure, and practice by crafty fetches, ambuſhes, and deceitful treacheries to wound their Neighbours, either in their eſtimation, credit, or goods. Thus having at large diſcourſed of the leſſe hurtful and ſtinging ſort of Bees, I will now apply my ſelf to a more fumiſh, teſty, angry, Waſpiſh, and implacable generation, more venomous then the former, I mean Waſps and Hornets.

Of WASPS.

A Waſp of the *Chaldeans* is tearmed *Deibrane*. Of the *Arabians, Zambor*. Of the *Engliſhmen* a Waſp. Of the *Germans, Ein Weſpe*. Of the *Belgics, Harſel*. Of the *Gothes, Bool Getingth*. The common people of *Italy* tearm it *Veſpa*, and ſome of them do uſually call it *Muſcone*, and the *Beneonians, Ureſpa*. The *French, Gueſſe*. The *Spaniards, Abiſpa*, and *Veſpa*, imitating the *Latines*, who call it *Veſpa*. The *Polonians, Oſſa*. The *Sclavonians, Woſſ*. The *Hungarians*, *Daras*. *Calepine* ſaith, that it is called *Veſpa, quia veſperi muſcas venatur in cibum*. The *Greeks* do alſo name them diverſly, for commonly they are called *Sphekes*. The Scholiaſt of *Nicander* calleth them *Lucoſpades*; and *Suidas*, *Dellides*, and *Delithes*. Of *Heſychius*, *Auletai*, and *Paſſaleres*; and *Gaza* nicknameth them *Anthrenai*: for theſe ought rather to be called Bees. *Euſtathius* deriveth *Tous ſpekas*, *apo tes diaſphagon*, becauſe they ſeem to be ſo much cut aſunder in the waſte or middle, as that they ſeem to gape and to be clean cloven aſunder, as by the figure here ſet before your eyes you may plainly perceive. A Waſp is a kinde of inſect, that is ſwift, living in routs and companies together, having ſomewhat a long body encircled, with four membranous wings, (whereof the two former are the greateſt) without bloud, ſtinged inwardly, having alſo ſix feet, and a yellow colour, ſomewhat gliſtering like gold, garniſhed with divers black ſpots all over the body in form of a triangle. Whereupon peradventure *Pollio* would needs have it called *Diachruſos*.

D. Bonham.

The body of a Waſp ſeemeth to be faſtened and tyed together to the midſt of the breaſt, with a certain thin fine thread or line, ſo that by means of this disjoyned, and not well compacted compoſition, they ſeem very feeble in their loins, or rather to have none at all. Whereupon *Ariſtophanes* the *Greek* Poet, in his Comedy, entituled *Spheces* or Waſps, tearmeth all thoſe Maids which are fine, ſlender, and pretty ſmall in the waſte, *Sphecodeis*, reſembling them to Waſps, as if one ſhould call them Waſp-waſted-wenches, whom *Terence* very quaintly and elegantly tearmeth *Junceas*, that is, ſlender, long, and ſmall, like to a Bulruſh. I think that all the whole pack of them have ſtings in general, although I am not ignorant that ſome Authors hold the contrary, affirming that the breeding *female Waſps* do want them: but thus much I can ſay of my own knowledge, that on a time finding a Waſps neſt, and killing them every one by pouring hot ſcalding liquor into their holes, becauſe I would bolt out the truth, I plainly perceived by long viewing of their bodies, that there was not one of them all but had a ſting, either thruſt out evidently, or cloſely and ſecretly kept and covered. So that:

———Quid nobis certius ipſis
Senſibus eſſe poteſt, quo vera ac falſa notemus?

In Engliſh thus;

What can more certain be then ſenſe,
Diſcerning truth from falſe pretence?

They make a ſound as Bees do, but more fearful, hideous, terrible, and whiſteling, eſpecially when they are provoked to wrath; from whence *Theocritus* fetcheth this proverb, *Sphex bomboom tettigos enantion*, that is, *Scilicet obſtrepitans argutæ veſpa cicadæ*: and this old ſaid Saw may well be applyed to thoſe who being themſelves unlearned, will not ſtick to cry out, exclaim, and procure trouble to thoſe that be more learned: or to ſuch as be weak, feeble, and impotent perſons able to do nothing, that will offer to contend with their betters and Superiors with their brawling ſpeeches, and ſpiteful raylings. And this *Latine* proverb carryeth the ſame ſenſe, *Catulus leonem adlatrans*.

Lucretius.

In Hoediporis.

If you will have the gifts and ornaments of their mindes deſcribed, you muſt conſider that a Waſp is a creature that liveth in companies together, one with another, ſubject to a civil government under one King or Ruler, induſtrious, mutual friends one to another, ingenious, crafty, ſubtle, quick, and cunning, of a very quarrelſome nature, and much ſubject to anger and teſtineſſe. This is a good Argument of their Civil and Political manner of life, in that they live not ſolitarily in a Deſert or Wilderneſſe where no man keepeth, but they build for themſelves a City, both excellent and admirable for the notable buildings and houſes in it, where they ſpend their time (for the moſt part) according to the mutable and never-failing laws of Nature, obſerving and keeping ever the Golden mean, as well in their daily tasks, as in their diſpoſitions and affections of minde.

Beſides, they are governed with a Kingly, not with a tyrannical government, (as *Ælianus* ſaith) although by nature they are great fighters, eager, boyſterous, and vehemently tempeſtuous: and he is led to ſay this, becauſe their Dukes or Generals are ſtingleſſe, or rather having ſtings as their ſubjects, they will not uſe the ſame to the hurt of their inferiors, by thruſting it forth, or ſtriking in paſſion.

Now although they be twice ſo great, and harder and rougher then the other Waſps, yet are they not unfurniſhed of the vertue of patience and clemency, or gentle and debonair behaviour, by which means they keep in order, and contain in their liſts, as it were by gentle language, their unruly rout, and mutinous companies. There is no man but will confeſſe, that this is an evident token and argument of their mutual love, and great good liking which they bear one to another: for whoſoever dare be ſo knack-hardy as to come neer their houſes or dwelling places where they have to do, and to offer any violence or hurt to the ſame, at the noyſe of ſome one of them, all the whole ſwarm ruſheth out, being put into an amazed fear, to help their fellow-Citizen, and do ſo buſily beſtirre themſelves about the ears of their moleſters, as that they ſend them away packing with more then an ordinary pace: and if we will credit *Ælianus*, the *Phaſelites* in times paſt were conſtrained to forſake their City, for all their defence, munition, and Armour, only through the multitude and cruel fierceneſſe of the Waſps, wherewith they were annoyed.

Again, this manifeſtly proveth that they want not a hearty and fatherly affection, becauſe with more then heroicall courage and invincible fury, they ſet upon all perſons, of what degree or quality ſoever, that dare attempt to lye in wait to hurt or deſtroy their young breed, no whit at all dreading *Neoptolemus*, *Pyrrhus*, *Hector*, *Achilles*, or *Agamemnon* himſelf, the Captain generall of all the whole *Grecians*, if he were preſent. Yea, the Divine Poet *Homer*, in 12. *lib.* of his *Iliades*, when he would expreſſe the haughty and generous ſpirits of the *Greekiſh* Chieftains, he likeneth them to Waſps in theſe words, *Spekeſſin ajolois cradien kai Thumon echouſais*, that is, having the hearts and ſtomacks of Waſps, when they are to fight for their private dwellings, their dear Progeny and off-ſpring. The love that Bees carry to their iſſue is great, but it cannot be greater then that of Waſps, neither can they have a greater promptitude, alacrity, or deſire to defend their young ones, if they be any way offended by paſſengers. Which thing *Homer* in his *Iliads*, *lib.* 12. inſinuateth by the example of the chafing god *Jupiter*, who took it marvellous angry, and much repined at the ſturdy ſtomacks of the *Grecians*, adding, that the *Greeks* did defend themſelves as valiantly, and endured the ſhock and aſſault of their enemies, as ever Waſps or Bees would in defence of their children or iſſue; in theſe Verſes following;

——— Non enim ego putavi heroas Achivos
Suſtentaturos noſtrum robur, & manus invictas:
Illi autem quaſi veſpæ acres atque apes,
Quæ nidos faciunt ad viam pulverulentam,
Neque deſerunt cavam domum: ſed expectantes
Viros venatores pugnant pro filiis.

That is to ſay,

I did not think our noble Grecian Lords could bear
Our force, and with unconquered hands maintain
Our right: but they like Waſps and Bees devoid of fear,
Which by high-wayes their houſes uſe to frame,
De not forſake their hollow duſty homes,
What ere they be that come to hunt them out:
Fighting with valor, (not fearfully like Drones)
To rid their young ones both from death and doubt.

Beſides this, they further build for them very large dwellings, with Chambers and floors, in a round and orbicular form, with rooms one above another, finely and wittily compacted, ſo that there is ſpace enough of ingreſſe and regreſſe, and very defenſible againſt all windes and weather, and yet their neſts or houſes are not all made after one faſhion, but very different, ſome of them repreſenting a Harp, ſome made much after the faſhion of a Pear, a Toadſtool, a Bottle, or budget of Leather, and ſome like a ſtanding Cup with handles.

Some affirm, that the matter of their Combes is confuſed, rude, and ilfavouredly heaped up, full of bark and ſand, but I could never as yet ſee it otherwiſe then light, ſlender, and thin like paper, dry, tranſparent, gummy and thin, as though it were thin leaves of gold, ſhaken very eaſily hither and thither with the winde, and riſing many times from the foot or foundation very ſmall, and broad above like unto a Top. The place of this their building is divers, and much different for ſome reſpects. For if they have loſt their Duke or principall Leader, then do they make them neſts of clay in the high holes of walls and hollow Trees; and as ſome ſay (although hitherto I could never ſee it) they make Wax there alſo.

But in caſe they have a Generall or Duke, then they make their neſts under the earth, their Cells or Chambers being formed with ſix angles or corners, much like unto Bees. They make their Combes round, much after the faſhion of a broad Toad-ſtool, from whoſe centers there goeth forth as it were a ſhort ſtalk or tying, by which the Comb cleaveth, and is faſtened hard to the earth, or ſome tree, or peradventure to ſome other Combe. They have ſuch a tender care over their females, (eſpecially at ſuch time as they are great with young) and ſuffer them ſo much to have their own wills, as they will neither permit them to take any pains abroad for their living, nor yet to ſeek for their meat at home: But the males flying about, (like good Purveyers) bring all home to their own dwellings, thereby as it were ſtrictly enjoyning the females to keep themſelves within doors.

All which fore-cited particulars, if a man would duly enter into conſideration of them, he muſt needs confeſſe, (will he nill he) the admirable induſtry, diligence, wit, prudence, Art, ſweat, and labour that is in theſe poor vermine. Their naturall inclination to anger, and the haſty fumiſhneſs of Waſps, not only Cocks, which do ſcratch and ſcrape up with their ſpurs their neſts, do finde implacable, but even all other diſturbers and provokers: From whence I take it that proverb hath ſprung, *Spekian erithizein*, which the *Latines* as *Ploutus* almoſt in the ſame ſenſe uſeth, *Irritare Crabrones*: For *Crabro* among the Poets, is uſed ſometimes for a Hornet, and otherwhiles for a Waſp.

In like manner *Clemens Alexandrinus*, *Stromaton* 2. when he would expreſſe and declare the foulneſs and abominable hurt of ſuch ſins that do lie in wait as it were to deceive, and watch to do diſpleaſure to the life of man, hath theſe words, *Houtoi gar* (*inquit*) *oi antagoniſtai pacheis kai*

Olympi-

Olumpicoi, ſphecon hos eipein eiſi diimuterai, kai maliſta hedone. That is, theſe fat, dull, groſſe, and Olympicall enemies of ours, are worſer then Waſps, more cruel and diſpleaſant, and eſpecially ſenſuall and worldly pleaſure. Yea, whoſoever dare adventure to challenge into the field this hardy and couragious little Creature, he ſhall (I dare be bold to ſay) but *Cadmeam victoriam reportare*, loſe more then he ſhall get, whet his ſword againſt himſelf, and return home by weeping croſſe, conſidering that beſides the nobleneſſe of their ſtout ſtomacks, and armed ſtings, they are withall ſo ſtiffe and obſtinate, as that they will never give over.

They differ alſo in their firſt breeding, ſtock, ſex, place, feeding, and manner of labour. *Iſidore* ſaith, (although perhaps not ſo truly) that Waſps do firſt proceed from the rotten Carkaſes of dead Aſſes: for all hold opinion, that the black Flies called Beetles, do take their Originall from them. But I am rather moved to think that they were firſt bred from the dead body of ſome warlike and fierce Horſe, and ſo alſo thinketh *Pliny*, in his eleventh book and twentieth Chapter. And the *Grecians* have uſually this famous and vulgar Verſe in their ordinary talk.

Hippoi men ſphekon geneſis, Tauroi de meliſſon,
Equi enim veſparum generatio, Tauri verò Apum.

In Engliſh thus;

Waſps do firſt come from Horſes, and Bees are bred from Bulls.

And ſurely their incredible ſwiftneſſe in their flight, their ardent and burning deſire they have to fighting, are ſufficient inducements to move me to think, that they took their firſt beginning from ſome gallant Horſe, and not from Aſſes, Oxen, or Cowes, and much leſſe from the fearfull Deer. For dame Nature hath ſeldome been ſo indulgent and friendly to any one beaſt beſides an Horſe, as to excell both in ſwiftneſſe of pace, quickneſſe of ſpirit, courage of ſtomack, and magnanimity. And I rather lean to this ſide, becauſe elſe I do not know what ſenſe I ſhould give to that *Ariſtotelean* Proverb;

Chairete aellopodoon thugateres ippon,
Salvete volucripedum filiæ Equorum:

Which may be Engliſhed thus;

All hail ye daughters of ſwift footed Horſes.

For beſides the truth that lyeth in the bare words, I take the morall of it to be uttered as a witty check, or a figurative flout, conceitedly to rebuke and hit in the teeth thoſe ſhrewd women, curſt and ſcolding wives, which are ſo peeviſh that they will not be pacified, who are like unto Waſps in their ſullen diſpleaſant humours, tempeſtuous madneſſe and pelting chafe.

Some Waſps do proceed from the ſtinking Carkaſe of a Crocodile, if we may give any credit to the *Egyptians* and their fellowes; and for that cauſe, when they imagine or think a Waſp, they paint and draw out the ſhape and form of a Crocodile or a Horſe. From hence *Hierom Cardan* would make this collection, that of every corrupted living Creature another doth proceed: which in my conceit is very abſurd and againſt all reaſon. For this being granted, the generation of Waſps would be infinite, and daily experience would read a Lecture of contradiction againſt him, upon the progreſſe of Natures works. Many times Waſps do breed by the mutuall company of the male and female together, which though *Athenæus* counteth but a fable, yet for all that, ſith the Philoſopher doth plainly tell us, that he hath been an eye-witneſſe to the ſame, (as in his firſt book *De generat. Animal.* cap. 16. and in his ninth book *De hiſtor. Animal.* cap. 41.) I will wholly incline to his judgement. But what manner of beginning they have by joyning together, and how it is perfected and accompliſhed, let us a little lend our liſtening ears to *Ariſtotle*, and *Pliny* his Interpreter.

The Princes or Ring-leaders of the Waſps, when they have made choice of a fit place for themſelves under the earth, either in the holes, chinks, or clefts of the Rocks, or in thatched houſes, (as I have often ſeen) there they make their Combes in the beginning of Summer, faſhioning their ſmall Cells with four little doors, wherein ſmall Worms do breed, who when they are more grown, they make yet other greater doors or hatches, and then again when their young are at the greateſt, they make others, ſo that towards the end of Autumn, you ſhall finde many, and thoſe very large neſts; wherein their principal Commander doth breed, not with every Waſp indifferently, but only with thoſe of his own race and princely linage. They are bred in the moſt eminent and higheſt place of the Waſp-neſt, like unto great Worms, their Cells being four or five in number, cloſe joyned and couched together, for otherwiſe they would increaſe after the ſame ſort in all reſpects, as the common Waſps do.

The excrement is only in the ſmall Worms, and their young increaſe remaineth immoveable without any ſtirring before they be able to flie, and whileſt they are covered as it were with a thin membrane, and yet in the ſame ſeaſon of the yeer, and in the ſpace of one day, you ſhall manifeſtly perceive a great difference: for one flyeth out, another ſticketh ſtill as it were in the ſhell, another rolleth and tumbleth, and a fourth cannot ſtir one whit. All theſe have their beginning and increaſe for the moſt part in Autumn, not in the Spring, and eſpecially in the full of the Moon. This one thing here is to be noted, that Waſps do not ſwarm, and that in Summer-time they are ſubject to Kings, and in Winter, *Gunaicocrateia*, the females regiment, or *Muliebre* *imperiam* prevaileth. And when they have renewed and repaired their iſſue with a great ſupply, and that they be freſh and luſty, the Empire again returneth to the Maſculine kinde, and yet it is but a ſhort, brittle, and ruinous Empire, not able to bear up it ſelf, although by Natures immutable decree orderly ruled, and rightfully governed.

Ariſtotle ſaith, that it is not likely that the young Waſps are brought forth as a brood, becauſe they be ſo great in bulk, as that in reaſon it ſhould not ſeem probable, that ſo ſmall a flie as a Waſp, ſhould have ſuch great young ones. But this is a bare and weak reaſon, not beſeeming the dignity of ſo great a Philoſopher. For what can any man alleadge to the contrary, why Nature in a lawful birth and breeding, ſhould not as ſoon and as ſpeedily finiſh, and make to grow and increaſe, as ſhe doth in generation that proceeds of rottenneſſe or corruption, which I hold to be but illegitimate? Let us but call to minde young birds, in how ſhort time after they be out of the ſhell, they be feathered, they be able to go, to eat, yea quickly increaſed in ſtrength, and grown to their full greatneſſe, ſo that they are in their full flowre ere one be a ware. All which when one hath throughly conſidered, he will eaſily judge that famous Philoſopher *Ariſtotle*, to have relyed but upon a weak prop, having ſcarſe probability to ſtand on his ſide for the maintenance of his opinion. His credit therefore at this time muſt not be ſufficient to barre us the liberty of contradicting him.

The ſame *Ariſtotle*, the Monarch of our modern learning, ſaith that the ſmall worms of Waſps, before they have any wings at all, are ſomewhat long, not much unlike thoſe worms which *Hippocrates* calleth *Eulai*, that breed in fleſh, called (as I judge) Maggots, but in our Countrey, Gentiles: and theſe Waſpiſh worms are ſomewhat white, known and eaſily diſcerned by their ſlits or daſhes, the hinder part of their body being very thick and groſſe, having a black liſt or line running along their backs, without feet, not creeping, but rolling and tumbling themſelves this way and that way confuſedly. When they have diſburthened themſelves of their breed, they cloſe up their cells with a certain thin ſmall skin, which again being broken when they come to any perfection or growth, they get themſelves out of dores into the clear light, and at two days end will be able to flie round about. The Philoſopher maketh two kindes of Waſps, the one wilde and fell, the other more meek and quiet. The wilder ſort is ſeldom ſeen, for they live and breed in Mountains and Woods, in Oketrees, and not in the earth, and this kinde is greater, blacker, more diverſly coloured, and ſtingeth more cruelly then the other. After they have lived one whole year, they are ſeen to flie away, if in the Winter the tree be cut down. Theſe kinde of Waſps I did once ſee in a Wood in *Eſſex*, where going unwarily to gather ſimples with another Phyſitian, and offending one of this fumiſh generation, the whole ſwarm of them preſently ruſhed forth about mine ears, and ſurely had I not had in my hand ſome ſprigs or branches of broom for my defence, I had undoubtedly paid dearly for this my unadviſedneſſe, if it had not coſt me my life, for they purſued me in every place of the Wood, with a vehement rage for a long ſeaſon, inſomuch that I was fain to take me to my heels, and ſo to ſeek to ſave my ſelf from further danger. And if our own Countryman Sir *Francis Drake* himſelf had been there, although he was (as *Meteranus* a ſtranger, (and ſo unpartial) in his Belgick Hiſtory right truly obſerved,) *Omnium ducum noſtri ſeculi fortiſſimus ac famoſiſſimus*, yet I make no doubt, but he would have taken my part, and been a companion with me in this my fearful flight.

Some of theſe Waſps, as well thoſe of the crueller kinde as thoſe of the gentler, do lack a ſting, (or rather I think they uſe it not.) Otherſome again of both ſorts, are furniſhed with ſtings, and thoſe that want them, are ever the leſſer and weaker, neither revenging themſelves any way, nor offering to make reſiſtance. Contrariwiſe, thoſe who have ſtings are greater, ſtronger, more quarrellous contentious, ſtubborn and eager. Some account theſe the males, and thoſe other ſtingleſſe to be the females. Many of thoſe which have ſtings, do forgoe and quite loſe them when Winter draweth on, as ſome make reckoning, but it was never my hap to ſee this, ſaith the Philoſopher in his 9. Book *De hiſt. Animal. capit.* 41.

If you catch a Waſp, holding her faſt by the feet, ſuffering her to make her uſual humming ſound, you ſhall have all thoſe that lack ſtings preſently come flying about you, which the ſtinged Waſps never are ſeen to do. Therefore ſome hold this as a good reaſon, to prove that the one ſhould be the male, the other the female. Both theſe ſorts, both wilde and unwilde, have been ſeen to couple toger after the manner of flies. Beſides, (in reſpect of ſex) both kindes of Waſps are divided into Captains or Ring-leaders, and into labourers: thoſe former are ever greater in quantity, and of more calm diſpoſition; theſe other, both leſſer, more froward, teſty, peeviſh, and divers. The males of labourers, never live one whole year out, but all of them die in the Winter time, which is evident by this, becauſe in the very beginning of cold weather, they are as it were frozen or benummed, and in the depth or midſt of hard winter, a man ſhall hardly or never ſee any of them.

But yet for all that, their Dukes or principal Chieftains, are ſeen all the Winter long to lie hid in their lurking holes under the earth: and indeed many men when they plowed or broke up the ground, and digged in Winter, have found of this ſort. But as for the labouring Waſp, I never as yet heard of any that could finde them. Their Principal or Captain, is broader, thicker, more ponderous and greater then the male Waſp, and ſo not very ſwift in flight, for the weightineſſe of their bodies is ſuch an hinderance to them, that they cannot flie very far: whereby it cometh to paſſe, that they ever remain at home in their hives, there making and deviſing their combes, of a certain glutinous matter or ſubſtance, brought unto them by the Work-waſps: thus ſpending their time in executing and doing all thoſe duties that are meet, in their Cells.

Waſps are not long lived, for their Dukes (who live longeſt,) do not exceed two years. And the labouring, that is the male Waſps, together with Autumn, make an end of their days. Yea which is more ſtrange, whether their Dukes or Captains of the former year, after they have ingendered and brought forth new ſprung up Dukes, do die, together with the new Waſps, and whether this do come to paſſe after one and the ſelf ſame order, or whether yet they do and may live any longer time, divers men do diverſly doubt. All men hold the wilder kinde to be more ſtrong of nature, and to continue and hold out the longer. For why, theſe other making their neſts neer unto common highways and beaten paths, do live in more hazard, lie open to divers injuries, and ſo more ſubject to ſhortneſſe of life.

The brevity of their life, is after a ſort recompenſed, and ſome part of amends made by the rare clammy glewiſhneſſe of the ſame: for if you ſeparate their bulks from the head, and the head from the breaſt, they will live a long while after, and thruſt out their ſting almoſt as ſtrongly as if they were undivideable, and free from hurt and deaths harm.

Apollonius calleth Waſps *Omotoroi*, and *Ariſtotle*, *Meloboroi*; although they do not only feed on raw fleſh, but alſo on Pears, Plums, Grapes, Raiſins, and on divers and ſundry ſorts of flowers and fruits; of the juyce of Elms, Sugar, Honey, and in a manner of all things that are ſeaſoned, tempered, made pleaſant, or prepared with either of theſe two laſt rehearſed.

Pliny in his 11. Book *capit.* 53. is of opinion that ſome Waſps, eſpecially thoſe of the wilder and feller kinde, do eat the fleſh of Serpents, which is the cauſe that death hath ſometimes enſued of their poyſonous ſtinging. They alſo hunt after great flies, not one whit ſparing the harmleſſe Bees, who by their good deeds have ſo well deſerved. According to the nature of the ſoyl and place, they do much differ in their outward form and faſhion of their body, and in the manner of their qualities and diſpoſitions of their minde: for the common Waſps being acquainted, and familiarly uſed to the company of Men and Beaſts, are the gentler; but the Hermites and ſolitary Waſps are more rude, churliſh, and tempeſtuous: yea *Nicander* tearmeth them *Oloous*, that is, pernicious. They are alſo more unhappy, dangerous, and deadly in very hot Countries, as *Ovidius* reporteth, and namely in the *Weſt-Indies*: where both in their magnitude and figure, there is great difference betwixt theirs and ours, ſo that they are accounted far more poyſonous and deadly, then either the *Engliſh*, *French*, *Spaniſh*, or *Barbarian* Waſps. Some of theſe dangerous generation do alſo abound in exceeding cold Countries, as *Olaus Magnus* in his 22. Book telleth us.

Their uſe is great and ſingular: for beſides that they ſerve for food to thoſe kind of Hawks which are called Kaiſtrels or Fleingals, Martinets, Swallows, Owls, to Brocks or Badgers, and to the Camelion: they alſo do great pleaſure and ſervice to men ſundry ways, for the kill the *Phalangium*, which is a kinde of venomous Spider, that hath in all his legs three knots, or joynts, whoſe poyſon is perilous and deadly, and yet Waſps do cure their wounds.

Raynard the Fox likewiſe, who is ſo full of his wiles and crafty ſhifting, is reported to lie in wait to betray Waſps after this ſort. The wily thief thruſteth his buſhy tail into the Waſps neſt, there holding it ſo long until he perceive it to be full of them, then drawing it ſlily forth, he beateth and ſmiteth his tail full of Waſps againſt the next ſtone or tree, never reſting ſo long as he ſeeth any of them alive; and thus playing his Fox like parts many times together, at laſt he ſetteth upon their combes, devouring all that he can finde.

Pliny greatly commendeth the ſolitary Waſp to be very effectual againſt a Quartain Ague, if you catch her with your left hand, and tie or faſten her to any part of your body, (always provided, that it muſt be the firſt Waſp that you lay hold on that year) *Mizaldus memor. Cent.* 7. attributeth great vertue to the diſtilled water, and likewiſe to the decoction of common Waſps, affirming expreſly, that if any part be therewith anointed, it ſtraight ways cauſeth it to ſwell monſtrouſly, and to be puffed up, that you would imagine them to be ſick of a Dropſie: and this courſe crafty drabs and queans uſe to perſwade their ſweet hearts, that they are forſooth with childe by them: thus many times beguiling and blinding the eyes of wary and expert Midwives. Whereupon we may very confidently conclude, that their poyſon is very hot, flatulous or windy. Some do prole after Waſps, and kill them by other ſleights and deviſes. For when the labourers do much uſe and frequent Elms, which they do very often about the Summer ſolſtice, to gather from them ſome gummy and clammy matter, their Dukes and Princes being at home, not ſtanding ſtill, but ſetling themſelves to their buſineſſe or trade, and helping to hatch up their young, they are ſuddenly choked with the fume of Brimſtone, Garlick, the branches of Coleworts, or other pot-herbs, or elſe by breaking down and overthrowing their combes, they dye through famine.

Mizaldus.

When you are minded to defend the Bees from the invaſion and ſpoil of Waſps, you muſt ſet a pot with ſome pieces of fleſh in it neer the Hive, and when the Waſps (in hope of ſome prey) are entered, ſuddenly clap over the cover, and ſo deſtroy them; or elſe by pouring in ſome hot water at the top, you may ſcald them all to death in the pot. In like ſort, ſome do gently breath upon Raiſins, Fruits, Sugar, Honey, Oyl, by which, either the Waſps are chaſed away or by taſting the Oyl do die. And again, ſome do mix corroſives with Honey, (as for example, *Sublimate*, *Vitriol*, *Auripigmentum*, &c.) that they by taking this venomous or poyſon infected drink, may ſuffer condign puniſhment for their intemperate and inſatiable gluttony.

Of the ſtinging of Waſps there do proceed divers and ſundry accidents, paſſions and effects, as pain, diſquieting, vexation, ſwelling, redneſſe, heat, ſweatings, diſpoſition or will to vomit, loathing and abhorring of all things, exceeding thirſtineſſe, and now and then fainting or ſwounding;

eſpecially when after the manner of venomous creatures, they have infected their ſtings either by taſting the fleſh of ſome Serpents, or by gathering their food from venomous plants.

Allens wife.

I will now ſet before your eyes and ears one late and memorable example of the danger that is in Waſps, of one *Allens* wife, dwelling not many years ſince at *Lowick* in *Northamptonſhire*, which poor woman reſorting after her uſual manner in the heat of the Summer to *Drayton*, the Lord *Mordants* houſe, being extreamly thirſty, and impatient of delay, finding by chance a black Jack or Tankard on the Table in the Hall, ſhe very inconſiderately and raſhly ſet it to her mouth, never ſuſpecting or looking what might be in it, and ſuddenly a Waſp in her greedineſſe paſſed down with the drink, and ſtinging her, there immediately came a great tumor in her throat with a redneſſe puffing and ſwelling of all the parts adjacent; ſo that her breath being intercepted, the miſerable wretch whirling herſelf twice or thrice round, as though ſhe had had ſome Virtiginy in her brain, preſently fell down and dyed. And this is known for a truth, not only to me, but to moſt of the Inhabitants thereabouts, being as yet freſh in their memories, and therefore their authorities as I take it, is unreproveable.

Salomon.

Now, for fear leſt I ſhould loſe my ſelf in this troubleſome and vaſt Ocean of Natures admirable fabricature, I will now diſcourſe of ſuch medicinal means, as will defend from their furious malice. The vertue of Mallows, and of *Althea*, (called Marſh-mallow) is notable againſt the prickings of Waſps. For the ſofteſt and moſt emollient herb, is applyed as a contrary to a warlike and hurtful creature, whoſe juyce being anointed with Oyl, either abateth the rage of Waſps, or ſo blunteth and dulleth their ſting, that the pain is not very ſharp or biting. *Pliny lib.* 21. *copit.* 171. And of the ſame minde is *Avicen*: Waſps (ſaith he) will not come near any Man if he be anointed with Oyl and the juyce of Mallows. For as a ſoft anſwer doth *frangere iram*, and as the *Grecians* have a ſaying, *Edus Megiſton eſtin orges pharmakon logos*: So alſo in natural Philoſophy we ſee, that hard things are quailed, and their edge even taken off with ſoft and ſuppling: as Iron with a fine, ſmall, and ſoft feather, the Adamant ſtone with bloud, and the ſting of Waſps, Hornets and Bees, with Oyl and Mallows.

What is ſofter then a Caterpiller? and yet if *Aetius* credit be of ſufficience, the ſame being beaten with Oyl, and anointed upon any part preſerveth the ſame from the wounds and ſtings of Waſps. And of the ſame vertue is the herb called Balm, being ſtamped and mixed with Oyl. The ſame ſymptomes or accidents do follow the ſtinging of Waſps, as of Bees, but far more painful, and of longer continuance, to wit, redneſſe, and intolerable pain, and Apoſtumes. And if any be ſtrucken of the Orange or yellow coloured Waſps, eſpecially in a ſinewy or ſome ſenſible part, there will follow a Convulſion, weakneſſe of the knees, ſwounding, yea, and ſometimes death, as before I have touched.

The curation of their ſtings.

Gilbertus Anglus.

Againſt the ſtinging of Waſps divers medicines are preſcribed by Phyſitians, but I will ſpeak of ſuch only as I have made proof of, and ſuch as are confirmed by long experience. *Gilbert* the *Engliſhman*, ſaith, that Waſps being bruiſed and applyed to the place affected, do cure their own wounds very ſtrangely. The ſame vertue peradventure, not only the Scorpion, but the greater part of Inſects have, if any one would make any diligent trial thereof. If a man be ſtinged of any venomous Waſps (which is eaſily known by the blewneſſe of the place, madneſſe, raving and fainting of the party, and coldneſſe of the hands and feet) after you have given him inwardly ſome Alexipharmacal medicine, the place agrieved muſt be lanched, or rather opened with a Cautery, ſo being thus enlarged and opened, the venom muſt be well ſucked out, and the paring or ſhaving of that earth wherein the Waſps build their neſts, muſt be wrought and kneaded with Vinegar, and ſo applyed like a Cataplaſm.

Haly Abbas.

A plaiſter alſo made of Willow-leaves, Mallows, and the combe of Waſps, is very medicinable for the ſame, as by the counſel of *Haly Abbas* I have experimented. The *Engliſh* Northern men, do prepare moſt excellent emplaiſter worth gold, againſt all ſtings of Waſps, only of that earth whereof their Ovens are made, having Vinegar and the heads of Flyes commixed therewith Let the place be very well rubbed with the juyce of Citrals, and withall, let the party that is pained drink of the ſeed of Marjoram beaten to powder the quantity of two drams: or thus, Take of the juyce of Marjoram two ounces of Bole Armony two drams, with the juyce of unripe Grapes ſo much as is ſufficient, make an emplaiſter. Another. Anoint the place with the juyce of Purcelane, Beets, or ſweet Wine, and Oyl of Roſes, or with Cows bloud, or with the ſeeds of the Spirting or wilde Cucumber (called *Noli me tangere*) beaten with ſome Wine. Thus far *Galen*. Barley Meal wrought up with Vinegar, and the Milk or juyce of a Fig-tree, Brine, or Sea-water, are excellent for theſe griefs (as *Dioſcorides lib.* 8 *cap.* 20. writeth) if the wound be often fomented, bathed, or ſoaked with any of them. To drink, give two drams of the young and tender leaves of Bays with harſh Wine, and if the part affected be only anointed with any of theſe, they are much available. In like ſort the decoction of Marſh-mallows drunk with Vinegar and water, are much commended, and outwardly ſalt with Calves fat: Oyl of Bays draweth out the poyſon of Waſps. The leaves of Marſh-mallows (as *Aetius* ſaith) being bruiſed and applyed, do perform the ſame.

The juyce of Rue or Balm, about the quantity of two or three ounces drunk with Wine, and the leaves being chewed and laid on with Honey and Salt, or with Vinegar and Pitch, do help much. Water-creſſes. Roſemary, with Barley meal, and water with Vinegar ſod together, the juyce of Ivy leaves, Marigolds, the bloud of an Owl, all theſe are very effectual againſt the ſtingings of Waſps: as *Pliny lib.* 31. *cap.* 9. telleth us; the buds of the wilde Palm-tree, Endive with the root, and wilde

Thyme being applyed plaiſter-wiſe, do help the ſtinging of Waſps. After the venom is drawn out by ſucking, the place affected muſt be put into hot water the ſpace of an hour, and then ſuddenly they muſt be thruſt into Vinegar and Brine, and forthwith the pain will be aſſwaged, the tumor ceaſe, and the malice of the venomous humor clean extinguiſhed. *Rhazes* ſaith, that the leaves of Night-ſhade, or of Sengreen, do very much good in this caſe. And in like ſort Bole Armony with Vinegar and Camphire, and Nuts beaten with a little Vinegar and *Caſtoreum*.

Rhazes.

Alſo take the Combe with Honey applying to the place, and hold the grieved place neer the fire immediately, and laying under them a few aſhes, binde them hard, and forthwith the pain will be ſwaged. *Serapio* ſaith, that Savory, or Creſſes applyed, and the ſeed thereof taken in drink, and the juyce of the leſſer Centory mixt with Wine, are very meet to be uſed in theſe griefs; he alſo commendeth for the ſame purpoſe the leaves of Baſil, the herb called Mercury, and Mandrakes, with Vinegar. *Ardoynus* is of opinion, that if you take a little round ball of Snow, and put it into the fundament, the pain will ceaſe, eſpecially that which proceedeth by Waſps. Let the place be anointed with Vinegar and Camphire, or often fomented and bathed with Snow-water. Take of *Opium*, of the ſeed of Henbane and Camphire, of each alike much, and incorporate them with Roſe-water, or the juyce of Willows, and lay it upon the wounded place, applying on the top a linnen cloth, firſt throughly wetted in wine. *Johannes Meſue* (who of ſome is called *Evangeliſta medicorum*) preſcribed this receipt of the juyce of *Siſimbrium* two drams and a half, and with the juyce of *Tartcitrons* make a potion. The juyce alſo of *Spina Arabica*, and of Marjoram are nothing inferiour to theſe forementioned. *Aaron* would in this grief have water Lintels (called by ſome Ducks meat) to be ſtamped with Vinegar, and after to be applyed.

Serapio.

Ardoynus.

Meſus.

Aaron.

Conſtantine aſſureth us, that *Alcama* tempered with Barley meal and Vinegar, and ſo bound to the place, as alſo Nuts, leaves of Wall-nuts, and Bleets, are very profitable in this paſſion. *Item*, apply very warm to the wound a Spiders web, bruiſed with a white Onion, and ſufficient Salt and Vinegar, will perfectly cure it. *Guil. Placentinus* will warrant, that a plate of cold Iron laid upon the wound, or Lead ſteeped in Vinegar, will do the deed. *Gordonius* counſel is to rub the place with Sage and Vinegar, and afterwards to foment it with water and Vinegar ſod together. *Varignana* would have us to apply Chalk in powder, and inwardly to take the ſeeds of Mallows boiled in Wine, Water, and a little Vinegar.

Conſtantine.

Gulielmus Placentinus.

Gordonius.

Varignana.

Matthiolus much commendeth Sperage being beaten and wrought up with Honey, to anoint the place. Likewiſe flies beaten and anointed on the place, winter Savory, Water-creſſes, with Oyl of *Momerdica*, give moſt ſpeedy help. *Arnoldus Villanovanus* aſſureth us, that any freſh earth, eſpecially Fullers earth, is very available, and the herb called *Poley*, uſed as an Unguent, or elſe Goats milk. And *Marcellus Empiricus* is not behinde his commendations for the uſe of Bullocks dung, to be applyed as a poulteſſe to the ſtinged part.

Matthiolus.

Arnoldus de villa nova.

Marcellus.

Theſe and many others may any Man aſcribe that hath had but an eaſie taſt of the infinity of Phyſicks ſpeculation, for the ſtore-houſe of Nature, and truly learned Phyſitians, which way ſoever you turn you, will miniſter and give ſufficient ſtore of alexiterial medicines for the expulſing of this grief. In concluſion one and the ſelf ſame medicament will ſerve indifferently for the curation of Waſps and Bees, ſaving that when we are ſtung with Waſps more forcible remedies are required, and for the hurts that Bees do us, then weaker and gentler are ſufficient. In the hundreth and nintieth year before the birth of our bleſſed Saviour, an infinite multitude of Waſpes came flying into the Market place at *Capua*, (as *Julius* witneſſeth) and lighted on the Temple of *Mars*, all which when with great regard and diligence they were gathered together and ſolemnly burnt, yet for all that they preſignified the coming of an enemy, and did as it were fore-tell the burning of the City, which ſhortly after came to paſſe. And thus much for the Hiſtory of the Waſp.

Of HORNETS.

A Hornet is called of the *Hebrews*, *Tſirbah*. Of the *Arabians*, *Zabor*, and *Zambor*. Of the *Germans*, *Ein hornauſſ*, *Horlitz*, *Froiſln*, *Oſertzwuble*. Of the *Flemings*, *Horſele*. Of the *Frenchmen*, *Trellons*, *Foulons*. Of the *Italians*, *Calauron*, *Crabrone*, *Scaraffon*, and *Galanron*. Of the *Spaniards*, *Tabarros ò Moſcardos*. Of the *Illyrians*, *Irſſen*. Of the *Sclavonians*, *Sierſzen*. Of us *Engliſhmen*, Hornets, and great Waſps. The *Grecians* call them *Anthrénas*, and *Anthrenoùs*, becauſe with their ſting they raiſe an *Anthrax* or Carbuncle, with a vehement inflamation of the whole part about it. The *Latines* call them *Crabrones*, peradventure of *Crabra*, a Town ſo named in the Territory of *Tuſculanum*, where there is great plenty of them: or it may be they are tearmed *Grambrones* of *Caballus* (a Horſe) of whom they are firſt engendered: according to that of *Ovid*, 15. *Metamorphoſ.*

The names.

Preſſus humo bellator equus Crabronis origo eſt.
That is to ſay;
When War-horſe dead upon the Earth lies,
Then doth his fleſh breed Hornet flies.

Albertus tearmeth a Hornet *Apis citrina*, that is a yellow or Orange coloured Bee. *Cardan* laboureth much to prove that dead Mules are their firſt beginners. *Plutarch* is of opinion, that they firſt proceed from the fleſh of dead Horſes, as Bees do out of a Bulls belly: and I think that they have their breeding from the harder, more firm and ſolid parts of the fleſh of Horſes, as Waſps do from the more tender or ſoft. Hornets are twice ſo great as the common Waſps, in ſhape and proportion of body much reſembling one another. They have four wings, the inward not being half ſo large as the outward, being all joyned to their ſhoulders, which are of a dark, browniſh, and of a Cheſtnut-like colour, theſe wings are the cauſe of their ſwift flight: they have alſo ſix feet of the ſame colour and hew, that their breaſt and ſhoulders are of. There is ſomewhat long, of the colour of Saffron, their eyes and looks are hanging or bending downwards, crooked and made like a half Moon, from which grow forth two peaks like unto Sithes or two ſickles, nothing varying in colour from their feet. Their belly is as though it were tyed to their ſhoulders with a very fine thred, the forward and middle part whereof is overcaſt with a brown colour, and begirt as it were with a girdle of Saffron. The hinder part is altogether yellow, eaſily diſcerned and remarkable for thoſe brown pricks or ſpecks, every one of them being much like unto a ſmall triangle, beſides they have certain clefts or ſlits on both ſides, both before and behinde, by which they can at their pleaſure when they liſt, either ſhrink up themſelves, or draw and gather themſelves together, and with the ſame again lengthen and ſtretch out their bodies. They have alſo neer to their belly on both ſides four black ſpots, and in their tail they are armed with a ſtrong piercing ſting, and the ſame very venomous. They make a ſound or a buzzing ſtrange noiſe, more hideous and dreadful then Waſps do. They are ſhrewd, fierce and cruel, quickly angry and wrathful, and although they live in companies together, yet notwithſtanding they are ever known to be but of an homely, rude, curſt, and untractable diſpoſition and nature, and will never be brought by any Art or faſhioning to lay aſide their uplandiſh wildeneſſe, (as ſome herbs will do that are tranſplanted into Gardens.)

Their deſcription.

They are beſides this of ſuch a miſchievous malignity and venomous quality, that as ſome affirm, nine of their ſtings will kill a Man, and three times nine will be able to kill a ſtrong Horſe; eſpecially at the riſing of the Dog-ſtar, and after, at which time they have a more fiery, haſty, and inflaming nature, and men at that ſeaſon, by reaſon of their large exaltation and ſending forth of ſpirits, grow more weak and faint.

And therefore it is no marvail though in holy Scripture, they are compared or likened to moſt fierce and cruel enemies, which ſhould put and caſt forth the *Canaanites*, *Hittites*, and *Chevites*, Exod. 23. 28. So likewiſe *Ovid* in the eleventh Book of his *Metamorphoſ.* hath theſe words, *Spicula carbronum ardentia*, The burning ſtings of Hornets: And *Virgil* in the fourth Book of his *Georgicks*, calleth them *Aſperrima*, moſt ſharp and violent. *Terence* (the moſt eloquent of all Comical Poets) in his Comedy intituled *Phormio*, and *Plautus* in his *Amphitryo*, have this Proverb, *Irritavi crabrones*, I have provoked or incenſed the great Waſps to anger: which I ſuppoſe they uſed as a by-word againſt the properties, natures, and froward behaviours of women, who being in their wonted fumiſh mood, if once you go about to overthwart them, or a little to contrary their wilfulneſſe, you ſhall pull an old houſe over your own head by a further provocation, and perhaps if you get you not the ſooner out of their ſight and reach of their clutches, you may chance have ſomewhat more flying about you ears then you would.

It is good therefore if you have a Wife, that is *Calcato immitior hydra*, unquiet and contentious, to let her alone, not to wake an angry Dog: and when a miſchief is well quieted and brought aſleep, to go your ways and ſay never a word. Whereas among Bees, their Drones and Kings do want ſtings; yea, and ſome Waſps too, as before I have writ: yet notwithanding all Hornets in general, as well the greater ſort of them that build their houſes in trees, as the leſſer ſort that dwell in the earth, are provided of ſtings, neither do their Ring-leader ſeem to be unarmed. For Waſps have their Preſidents of their own ſociety, and their Captains general as well as Bees and Waſps, whatſoever *Pliny lib.* 11. *cap.* 21. dream to the contrary: which in proportion and quantity are far greater (if you reſpect the bodies of other Hornets) then either the Captains of the Bees and Waſps are in compariſon of their ſubjects. Theſe alſo ſpend their time within doors, as the Captain of Waſps do, not having many but one head to guide and rule over them, leſt by banding into parties and factions, ſome civill war (wherein all things are miſerable, as *Tully* ſaith) or other mutiny might ariſe to their final deſtruction. They are great vexers and troublers, and even like ſuch as had ſworn the death of their enemies, robbers, and theeves: And yet at home they nouriſh peace, excelling even the very Bees themſelves in their painful, earneſt, and willing deſire to maintain their ſtock and common ſociety.

In bellis civilibus omnna ſunt miſera. Tul. ep. ſemal.

For neither do they chide, braul, or contend, nor yet make any ſtir or ruſtling when any is promoted to any office or place of preferment in their corporation; neither are they diſtracted into divers mindes with their buſineſſes, neither yet do they raiſe any tumult, make any uprore, or keep a coil or ruffling at the election of their Prince and Captain general, but with common conſent they uſe but one Table, taking their commons together like good friends and fellows, and whatſoever they kill, they carry ſome part of it home, frankly imparting it to their neighbors, children, and companions.

Neither do they yearly drive and expel forth of the doors to ſeek new habitations, where they can, (as ſome Bees deal very churliſhly and unnatural with their young) but they contrarywiſe in their boſome defend and keep warm their new ſpringed up progeny and race, building for them greater Houſes, and raiſing of moe Sellers and ſtores, bording and planking the ſame in caſe of neceſſity, never ceaſing till they be fully rear'd and made fit for defence and ſafety. But as for their

King and Captain (whom they exceedingly honor and highly eſteem) they make choyce of ſuch a one, as neither ſeemeth to be a King without a Kingdom, nor a Prince without people and poſſeſſions, and yet he ſo behaveth himſelf, and carryeth himſelf ſo evenly, as though he had but little to do in this his Empire. And yet in largeneſſe of body and greatneſſe of his heart, in ſtoutneſſe and ſtatelineſſe of ſtomach and perſon, he ſtaineth all the reſt, carrying away the prize from them all: and when there is Proclamation of War to be made againſt any forain foes, and that their flags and ancients be diſplayed by ſounding his deadly blaſt, he giveth defiance to his enemies, moſt couragiouſly beſtirring himſelf more then any of his followers, ſhewing himſelf both moſt vehement, warlike, and ſkilful in fight, and yet again at home towards his ſubjects, (like a true noble ſpirit) he is very gracious, gentle, and temperate, tractable, eaſie to be intreated, and moſt ready to forgive. They make for themſelves certain holes or dwelling places under the ground, caſting forth the earth much after the faſhion of Piſmires: for you muſt underſtand that neither Waſps nor Hornets do ſend forth any Swarms as Bees do, but thoſe young Hornets which ſpring from them now and then, do there remain among their breeders, making their beds or hives much greater, by means of the earth formerly caſt out.

They enlarge their combes exceedingly, by adding more and more unto them, ſo that of a ſtrong and healthy ſtock of Hornets, it hath been known they have gathered three or four trays or baskets full of combes. If any Hornets ſtray from their own home, they repair to ſome tree, and there in the top of it make their combes, ſo that one many times may very eaſily and plainly perceive them, and in theſe they breed one Captain General, or great Commander, who when he is grown to be great, he carryeth away the whole company, placing them with him in ſome convenient lodging. Wilde Hornets (as *Pliny* ſaith) do live in the hollow trunks or cavities of trees, there keeping themſelves cloſe all the Winter long, as other Cut-waſts do.

Their life is but ſhort, for they never exceed the age of two years. Their combes are wrought with greater cunning, more exquiſite Art, and curious conceit, then thoſe either of Waſps or Bees, and theſe excellent deviſers do make them one while in the trunks of trees, and ſometimes again in the earth, encreaſing them at their pleaſure with more floors and buildings, according to the encreaſe of their iſſue, making them ſmooth and bright, decking and trimming them with a certain tough or binding ſlime or gelly gathered from the gummy leaves of plants. Neither do any of the little mouths or entries of their cells look upwards, but every one bendeth downwards: and the bottom is placed upwards, leſt either the rain might ſoke through them in long ſhowers, or the head of them being built upwards, they might lie open and be the more ſubject, and expoſed to the unruly rage and furious blaſts of windes and ſtorms.

If you eye well their neſts, you ſhall finde them all for the moſt part exactly ſexangular or ſix cornered, the outward form and faſhion whereof is divided with a murry-coloured partition: and their membranous ſubſtance is much like unto the rinde or bark of Birch, which in the parching heat of Summer cleaveth and openeth it ſelf into chaps. The ſtinging of Waſps is for the moſt part accompanyed with a Fever, cauſing withal a carbuncle, ſwelling, and intolerable pain.

I my ſelf being at *Duckworth* in *Huntingtonſhire*, my native ſoyl, I ſaw on a time a great Waſp or Hornet making after, and fiercely purſuing a Sparrow in the open ſtreet of the Town, who at length being wounded with her ſting, was preſently caſt to the ground, the Hornet ſatisfying her ſelf with the ſucked bloud of her quelled prey, to the exceeding admiration of all the beholders and conſiderers of this ſeldom ſeen combate. *Ariſtotle*, whom I ſo greatly reverence, and at whoſe name I do even riſe and make curteſie, knows not of a ſurety how Hornets do engender, nor after what manner they bring forth their young breed. But ſince we are aſſured of this, that they bring forth their young by the ſides of their Cells, as Waſps and Bees, we need not doubt, but that they do all other matter after their manner, and if they couple together, they do it by night, as Cats do, or elſe in ſome ſecret corner, that *Argus* with his hundred eyes can never eſpy it.

Hornets gather meat not from flowers, but for the moſt part they live upon fleſh, whereby it cometh to paſſe, that you ſhall often finde them even in the very dunghils, or other ordure. They alſo proul after great Flyes, and hunt after ſmall Birds, which when they have caught into their clutches, after the manner of hungry Hawks, they firſt wound them in the head, then cutting it aſunder, or parting it from the ſhoulders, carrying the reſt of the body with them, they betake themſelves to their accuſtomed flight. The greater ſort of them die in the hard Winter, becauſe they ſtore not themſelves ſufficiently aforehand with any ſuſtenance as Bees do, but make their proviſion but from hand to mouth, as hunger enforceth them, as *Ariſtotle* enformeth us. In like ſort *Landius* hath well obſerved, that Hornets both day and night keep watch and ward beſides the hives of Bees, and ſo getting upon the poor Bees backs, they uſe them inſtead of a Waggon or carriage: for when the ſilly Bee laboureth to be diſcharged of his cruel Sitter: the Hornet when he hath ſucked out all his juyce, and clean bereft him of all his moiſture, vigour and ſtrength, like an unthankful Gueſt and the moſt ingrateful of all winged creatures, he ſpareth not to kill, and eat up his foſterate and chief maintainer.

They feed alſo upon all ſweet, delicious, and pleaſant things, and ſuch as are not untoothſome and bitter, and the *Indian* Hornets are ſo ravenous, and of ſuch an inſatiate gluttony. (as *Ovidius* reporteth) that they flie upon Oyl, Butter, greaſie Cooks, all ſorts of ſharp ſawce uſed with meats, and all moiſt and liquid things, not ſparing the very Napkins and Table clothes, and other linnen that is any way ſoiled, which they do filthily contaminate with the excrements of their belly, and with their Viſcous laying of their egges.

But as they get their living by robbery, and purloining of that which others by the ſweat of their brows, by their own proper wits and invention, and without the aid and help of any do take great pains for: ſo again they want not revenge to puniſh, and a provoſt Marſhal to execute them for their wrongful dealings: tearmed of ſome a Gray, Brock, or Badger, who in the full of the Moon maketh forcible entrance into their holes or lurking places, deſtroying and turning topſie-turvy in a trice their whole ſtock, family, and linage, with all their houſhold ſtuffe and poſſeſſions.

Their uſes.

Neither do they only miniſter food to this paſſing, profitable, and fat beaſt, but they ſerve in ſtead of good Almanacks to Countrey people, to foretel tempeſts and change of weather, as Hail, Rain, and Snow: for if they flie about in greater numbers, and be oftner ſeen about any place, then uſually they are wont, it is a ſigne of heat and fair weather the next day. But if about twilight they are obſerved to enter often their neſts, as though they would hide themſelves, you muſt the next day expect rain, winde, or ſome ſtormy, troubleſome or boyſterous ſeaſon: whereupon *Avienus* hath theſe verſes;

Sic & crabronum rauca agmina ſi volitare
Fine ſub Autumni conſpexeris æthere longo,
Jam verſpertinos primos cum commovet ortus
Virgilius, pelago dices inſtare porcellam.

In Engliſh thus;

So if the buzzing troups of Hornets hoarſe to flie,
In ſpacious air bout Autumns end you ſee,
When Virgil ſtar the evening lamp eſpie,
Then from the Sea ſome ſtormy tempeſt ſure ſhall be.

Remedies againſt their ſtings.

Furthermore, ſince it is moſt certain that thoſe remedies which do heal the ſtingings of Waſps, do alſo help thoſe wounds and griefs which Hornets by their cruel ſtinging cauſe, yet notwithſtanding, as *Aggregator* hath pronounced, the *Zabor* is the *Bezoar*, or proper antidote of his own hurt, if he be oftentimes applyed with Vinegar and Water, Oyl and Cow-dung tempered together. In like ſort all manner of ſoils and earths that are miry and muddy, are much commended in this caſe, ſuch as *Bacchus* applyed to bald *Selenus*, who was wounded with Hornets, when longing for a little Honey, he jogged and ſhaked their neſts, thinking he had lighted upon ſome Bees Honey, which *Ovid* moſt elegantly 3. *Faſtorum* hath deſcribed in theſe verſes;

Millia crabronum coëunt, & vertice nudo
Spicula defigunt, oraq; prima notant.
Ille cadit præceps, & calce feritur aſelli:
Inclamat ſocios, auxiliumq; vocat.

Concurrunt Satyri, turgentiaq; ora parentis
Rident, percuſſo claudicat ille genu.
Ridet & ipſe Deus, limumque inducere monſtrat;
Hic paret monitis, & linit ora luto.

In Engliſh thus;

Of Hornets thouſands on his head full bare,
And on his face their poyſon'd ſpears ſtick faſt,
Then headlong down he fell, and Aſſes foot him ſmote,
Whiles he for help his voyce to fellows caſt.
The Satyres flock came run apace, and did deride
Their ſires ſwollen mouth, whiles Aſſe had made him lame.
The God himſelf did laugh, yet ſhewed an earth to hide
The wound which he received, and ſo did heal the ſame.

If any one be deſirous of moe medicines againſt the perillous and tranſpiercing ſtinging of theſe horn-mad Hornets, he ſhall finde ſtore of them digeſted together in the Hiſtory of Waſps: for their remedies are common, belonging as well to the one as to the other, there being no other difference but this, that here they muſt be given in a greater meaſure or quantity, and their uſe ought longer to be continued. And let this ſuffice to have ſpoken thus much of ſuch Inſects or Cut-waſted vermine as are winged, and live in companies and routs together. Now will I make choice to deſcribe ſuch as are winged and live ſolitarily, leſt I ſhould ſeem to loſe my ſelf in this troubleſome and vaſt Ocean of Phyſical contemplation.

Of CANTHARIDES *or Spaniſh Flies.*

THis kinde of Cut-waſt is called of the *Grecians*, *Kantharis*, and among the *Latines* it changeth not his name. Of the *Frenchmen*, *Cantaride*. Of the *Italians*, *Cantarella*. Of the *Spaniards*, *Cubillo*. Of the *Germans*, *Grune Kefer*, *Goldkaeſer*. Amongſt the *Belgics* or *Netherlanders*, it is termed *Spaenſche Vlieghe*; and of us *Engliſh* men, *Cantharides*, and *Spaniſh Flies*. I have ſeen two ſorts of *Cantharides*, the one great, and the other ſmall. Of the greater ſort ſome are thick, and long bodyed, which are found among wheat, and theſe are thick, groſſe, and unwieldy, like unto Beetles, they are alſo of ſundry colours, and changeable hew, with golden ſtreeks or lines croſſing their wings, and theſe are beſt to be uſed in Phyſick. They of the other leſſer kinde, are lean and thin ſcrags and ſtarvelings, broad, hairy, heavy, and ſluggiſh, and for phyſical uſes little worth.

The greater ſort alſo are not always of a gliſtering green colour, but otherwhiles you ſhall have them ſomewhat reddiſh or murrey coloured, but yet all of them of a glittering brightneſſe, and marvellous ſhining gloſſe, piercing the eyes with ſingular delight. The leſſer ſort are not ſo common as the greater, ſomewhat differing from them in ſhape and proportion of body, but in vertue, quality, and manner of breeding, there is no diſagreement at all to be found.

Thoſe of the leſſer ſort have their bodies and heads ſomewhat long and hooked, their eyes very black, and hanging out, their wings growing out from the midſt of their Loyns, being marked with two ſilver ſpecks or pricks, and ſome few white ſpots.

They are commonly found in the Summer Seaſon, in the herb that is called *Cicutaria*, or wilde Hemlock. Their feet and legs are very ſmall and long, finely decked and garniſhed, as it were with a Vermillion red, or beautiful purple. There is alſo another ſort of theſe anſwerable to the former, in colour of their bodies in every reſpect, ſaving that their eyes are green: their head very little; and the hinder part of their ſhoulders round and crooked.

The third ſort have their head and ſhoulders all one, being ſo cloſely and confuſedly joyned together, as if they were but one thing and could not by any means be ſeparated, unleſſe in imagination, and theſe are of a ruſty colour, and their ſmall pink eyes as black as Jet, their wings as well as their heads are nothing differing in colour, ſaving that their wings do gliſter with ſome ſtrakes of the colour of gold, their feet alſo are ſhort, and as black as Pitch.

The fourth is very like to the third ſort, but it is rather of a greeniſh, then of a ruſty Iron colour, but in all other reſpects there is no difference to be ſeen, ſaving in their magnitude, for this laſt deſcribed is the leaſt of them all. But theſe kindes of Cantharides as well the greater as the leſſer, do firſt proceed not from any beaſts, as ſome have thought, but they rather take their Original from ſome rotten, ſtinking, and corrupt moiſture and ſiccity, *Titectai gar en tois toon puroon leiois kai tais ageirais, kai tois Sukais proſeti to toon Kantharidoon phulon*, the meaning whereof is, that the whole ſtock and kindred of Cantharides do bring forth or lay their young in the vile, baſe, and imperfect force of heat or warmth: and further in moiſt Figs, as *Aelianus* in his ninth Book and thirty nine Chapter, word for word hath exſcribed out of *Ariſtotle*.

They do alſo breed from a certain little Worm which is found in the ſponge of the Dog-bryer (called of the Phyſitians *Bedeguar*) and from Caterpillers of the Fig-tree, Popler, Pear-tree, Aſh, Olive-trees and Roſes: for in all theſe there be found certain Worms, the very Founders and Parents of Cantharides, but yet in the white Roſe theſe Worms are of much leſſer force, power, and ſufficiency, then in the former.

Cantharides do couple together and generate, but yet not any living creature of their own kinde, but only a little ſmall Worm. They feed upon all manner of pulſe and Corn, but eſpecially Wheat, and then they are beſt for medicinal uſes. The ſmell like unto Tar, and in their taſte they much reſemble the Cedar-tree, as *Nicander* reporteth. Their vertue and quality is to burn the body, to parch and to bring a hard ſcale or cruſtineſſe upon any part they ſhall be applyed to, or as *Dioſcorides* ſaith, to gnaw or eat into, to raiſe bliſters, exulcerate and raiſe an inflammation, for which reſpect, they mix them with ſuch medicaments as are appointed to heal Leproſies, any dangerous Tetters and Ring-worms, or thoſe that be Cancrous.

They are applyed to hard, Scurvy, or Mangy nails, being firſt tempered with ſome fit plaiſters or Cerotes tending to the ſame purpoſe, taking them ſo clean away, that they fall off by the roots. Some uſe alſo to temper them with ſuch convenient medicines as are warranted to take away Warts, Corns, or any hard knobs or pieces of fleſh growing in the hands or feet. Some again uſe to pulveriſe Cantharides, and then mixing them with Tar, do make an Unguent to cure the falling away of the hair, or the ſhedding of it, either in the head or beard, but herein there muſt be good advice required, leſt at any time by their cauſtick faculty they exulcerate too deep into the fleſh.

Cantharides mingled with Lime, ſerve in ſtead of a Pen-knife to eradicate and take away thoſe little hard and red ſwellings riſing chiefly in the crown of the head, armpits, or privy parts, called of ſome Phyſitians *Pani*: and ſome there be again that will adventure a little of them in powder, to give with ſuch Medicines whoſe property is to provoke Urine: But yet there is hard hold and tough reaſoning on both ſides, whether they ought to be given inwardly with Diuretikes or no, conſidering that being ſo drunk, they are accounted amongſt ſtrong poyſons, tormenting the bladder without any ceaſing: otherſome again hold the contrary, aſſuring us upon their own experience, that not exceeding their due quantity, they may be taken with other Correctories, to ſerve as a Retricle to tranſport them to the place affected, ſo that you ſee either ſide hath his ſtrength and reaſons.

Juſta pari premitur veluti cum pondere libra,
Prona nec hac plus parte ſedet, nec ſurgit ab illa.

That is to ſay;

As when an even ſcale with equal weight is peized,
Nor falls it down this way, or is it that way raiſed.

But being mingled and wrought up with the juyce of *Una Taminea*, (which is a kinde of Berry, growing on the herb called *Ampelos angria*, a kinde of Briony) Sheeps or Goats ſewet, there is no doubt but that they do great good. Some of my Maſters (ſaith *Galen*, the Prince of all Phyſitians next to *Hippocrates*) did uſe to put Cantharides amongſt ſuch medicines as they prepared to move urine, taking only their wings with the feet, but I (ſaith he) am wont to take Cantharides wholly, as well as ſome parts of them, and ſo I judge them the more ſafe to be uſed and prepared this way, eſpecially I miſſe not to make choyce of ſuch are found among Corn, and have as it were a yellow circle or encloſure croſſing overthwart their wings, *lib.* 3. *lib. &* 11. *de Simplic. facult.*

Being applyed rightly, they do alſo provoke the monthly terms, and that very effectually, and put into Antidotes, they are thought of many to help Hydropical perſons, as not only *Hippocrates* and *Dioſcorides*, but alſo *Galen*, *Avicenna*, *Rhazes*, *Pliny*, and other Phyſitians of beſt note and worth have witneſſed: I cannot here ſufficiently enough commend their aſſured, tryed, and approved uſe, being commixed with Leaven, Salt, and Gum *Ammoniacum*, for the diverſion of Rhumes or Catarrhs, the taking away of all Goutiſh pains, out of the hanch or hip (called the *Sciatica* of the popular ſort) whileſt they draw forth and conſume from the center of the body, (being there throughly and deeply impacted) to the ſurface the matter or offending humours cauſing theſe griefs above ſaid.

They are alſo good againſt the venom of a *Salamandra*, as *Pliny* in his 29. Book, and 24. Chapter aſſureth us. They are alſo highly eſteemed of ſome, being duly prepared and orderly mixed with certain other medicines, to take away and correct the remiſſe negligence, falling-faintneſſe, and heartleſſe caſting down of the Virile part, yea they do (as they ſay) very much provoke to venerous incitements.

But here I would counſel each one not to be knack-hardy bold, in medling with them, *for theſe* or the like intentions: for as they bring both health and help, being duly commixed, and orderly tempered, not exceeding their doſe and firſt quantity; ſo again, if you fail in their due and skilful application or propination, they induce and drive men into moſt intolerable grievous ſymptomes and accidents, and otherwhiles to death it ſelf. *John Langius* ſetteth down a true and very pleaſant ſtory, which in this place, becauſe it maketh greatly for our matter in hand, I will not refuſe briefly to deſcribe it.

There was (ſaith he) at *Bonony* in *Italy*, a certain rich and Noble young man of *France*, (which *Gallus*, to uſe his own words, was *Gallo quovis gallinaceo ſalacior*) who falling extreamly in love with a certain Maid in the ſame City, prevailed ſo far at length through his earneſt importunities and inceſſant ſollicitations, that at length they appointed and agreed upon the time and place of their meeting, to keep their Revels for one night. So this luſty Gallant being thus inſnared in the inextricable labyrinth of her beauteous Phiſnomy, fearing deadly, leſt his heart ſhould turn into Liver, or that he might faint and loſe his courage before he ſhould attain to his journeys end; in this his doubtful coaping, and dangerous skirmiſhing conflict, like a wiſe man fearing the worſt, caſting all dangers aforehand what might enſue would needs know of a fellow-ſouldier, and Countreyman of his, who had as one may gueſſe born a ſtandard in the Camp of *Venus*, what were beſt to be done, to move him to a more vigorous courage, and to keep his credit for that time, leſt either he ſhould turn Craven like an overtyred Jade, or elſe be utterly non-ſuited, which was worſt of all: who preſently wiſhed him to take ſome Cantharides in his Broath, which the other at all adventures forthwith did.

But it was not long before this jolly Yonker felt an itching about his lower parts, then being frolike above meaſure, ſuppoſed it to be the operation of his medicine that cauſed this Colt-evil, he without any more ado hyed him to his Love, minding there indeed to draw the matter to a ſet battel, and to end all controverſies by dint of ſword.

Tunc animis opus, Aenea, tunc pectore firmo.

In Engliſh thus;

Of courage then indeed,
Then of ſtout breaſt is need.

But yet for all this, in the ſtill of the night, when every one beſides were at reſt, my reſtleſſe *Frank* felt his whole body to be pockily torn, and miſerably rent with ſundry cruel prickings and ſtingings, feeling moreover a ſtrange taſt in his mouth, like the juyce or liquor that iſſueth from the Cedar tree, ſtamping and ſtaring, raging and faring like a furious, mad, frantike Bedlam, being almoſt beſides himſelf through the extremity of his pain, virtiginy and giddineſſe of his brain, with inclination to fainting or ſwounding: ſo being troubled, toſt, and perplexed, all ſad, melancholike and male-content, deſtitute of counſel and comfort, like a ſilly Miſer, and an impotent Suiter, and not like a couragious hot-ſpur, he let his action fall, turning his back like a Novice and freſh-water Souldier, full ſore againſt his will you may be ſure, but there was no remedy, and ſo with as much ſpeed as he could, bidding his Love adiew, he trudged home to his own lodging; whither being come, and finding no relief, but rather an encreaſe of his torments, with a continual burning of his Urine and Strangury, he lamentably beſought, and with weeping and tears moſt humbly craved and cryed out for help, requiring the favour and furtherance, both of my ſelf and of another Phyſitian for the cure : ſo I being admitted to viſit this poor patient, I firſt gave him ſome Oyl to drink, thereby to provoke vomiting : then was there prepared a Glyſter, made of the herbs *Mercurialis*, Mallows, and the root of *Althea* decocted, wherein was diſſolved *Caſſia*, with Oyl of Violets and Lillies. After the adminiſtring of this, I commanded him to take a good draught of Cows or Goats milk once in every hours ſpace, and if Milk could not be had, then I willed him to take an Almond Milk made *Ex nucleis pinea*, ſeeds of Mellons, Gourds, and Poppy bruiſed with the diſtilled Water of Mallows, and *Alkeakengy*, and this would I have given to him in good quantity in ſtead of the Milk if it were wanting.

But after that my fiery *Frenchman* had recovered his former health with theſe and the like remedies, and that the unadviſed Author of this raſh counſel had very humbly intreated pardon at our hands for this his great fault, he proteſted ſolemnly with a great oath, that he would never hereafter preſcribe any Phyſick to any man living. Thus far *Johannes Langius* in his firſt Book *Epiſtola. Medicinal.* forty eight.

There is alſo very profitable uſe to be made of Cantharides, for if you beat them to powder, and convey a little of it into Apples, Pears, Plums, Figs, Peaches, or Quinces ; eſpecially thoſe that be faireſt and ripeſt, and thoſe that hang the loweſt, finely cloſing it up again with the pill, which if any Theeves or Robbers of Orchards ſhall taſt of, they fall within a while after into an intolerable burning in their Urine and Strangury, making it only in dropping wiſe, whereby their theft is ſoon found out, and they well rewarded with ſowre Sawce for their ſweet meat : And this is an excellent night-ſpell, and therefore I was loath to pretermit it, but to make you acquainted withall.

There is alſo another excellent medicinal uſe of Cantharides, if they be duly, and according to true art adminiſtred, and with great warineſſe for that paſſionate grievance, which at this time though ſome fooliſh Phyſitians never heard tell of any ſuch, I will call *Peſſuli infirmitas*, yet I may not ſet it down in Engliſh, becauſe I would have but a few acquainted with ſecrets. *Habeo enim ego ſingulare quoddam contra penis Languorem remedium, quo cum promiſcuè uterer, utramque multis nobilibus (qui veneris vulgo ſtudioſiores videntur) animos & vires adauxit abſque noxa. Uni tamen inter cæteros ſic obfuit, ut à venere (cui nimium litârat) ſanguinem continuò mingeret, & lipothymia frequenti laboret. Sanè niſi lactis copia in procinctu fuiſſet, omninò interiiſſet venereus pullus, & meritas ſalacitatis cupidiniſq pœnas luiſſet.*

And let this ſuffice to have ſpoken of their medicinal vertues and qualities ; Now will I proceed to tell you of their ill name, naughty, venomous, and pernicious properties. They are reckoned and ſcored up in the number of moſt deadly and hurtful poyſons, not only becauſe they cauſe eroſion and inflamation, but more in regard of their putrefactive quality and making rotten, wherein they exceed. Their juyce being taken into the ſtomach, and ſo piercing into the veins, or laid upon the skin outwardly ſo long till it hath entred the veins, is a moſt ſtrong poyſon, whereupon *Ovid* when he wiſhed ill unto, or curſed his enemy, writ this ; *Cantharidum ſuccos dante parente bibas. lib. Triſt. Cicero ad Parum*, in his ninth Book of his familiar Epiſtles hath theſe words, *Catius accuſante L. Craſſo, Cantharidas ſumpſiſſe dicitur*, as if he purpoſed by that way to make an end of himſelf by death. *Galen* in his third Book *De Simplic. medicam. facult.* writeth thus :

If they be taken inwardly into the body, though but in ſmall quantity, and mixed with other convenient correctories, they do mightily provoke urine, and ſometimes corrode and fret the bladder, ſo that it is as clear as the noon-day, that what things ſoever do overthrow nature, by reaſon of their extreme frigidity, if they be taken but in a very ſmall quantity, yet will nouriſh the body : ſo on the other ſide, whatſoever is contrary, repugneth or goeth againſt humane nature, by means of corrupting or any putrefactive quality like unto Cantharides, can never do ſo. *Bartholomeus Montegnana*, a learned Phyſitian, aſſureth us, that he once knew one *Francis Bracca* a Citizen of *Padua* in *Italy*, who having but outwardly applyed Cantharides to his knee, yet their poyſon ſpreading to other inwards parts, he voided five pintes of bloud by way of urine : and this may any man ſee, if he will take the pains to read over *Montegnana Conſil.* 182. *Cap.* 10.

The ſame accident hath alſo befaln them, who to be remedied of rough, hard, mangy, or leprie-like nails, have adventured to apply them to their great toe. So that Cantharides muſt not raſhly be applyed and uſed, as common deceivers, blinde Empericks, and couſening Land-lopers would make plain Countrey people believe. *Pliny* relateth a ſtory of one *Coſſinus* a *Roman* Knight, who was deerly beloved of *Nero* the Emperor, who having a very dangerous Tetter (a diſeaſe in times paſt peculiar to the people of *Egypt*) a Phyſitian of that Countrey in ſtead of curing, did kill him by giving him Cantharides to drink.

But I ſhould rather think that *Coſſinus* dyed by the outward application of Cantharides, becauſe by their burning and cauſtick quality, they clean eat and conſume away filthy Tetters or Ring-worms, Mangineſſe, Scurvineſſe, Lepries, and all hard Callous Warts, Corns, or pieces of fleſh that grow in the hands or feet ; for I can ſee no reaſon why any would be ſo wilfully blinde, as to give them inwardly for the curation of any Tetters or ſuch like griefs : or at leaſtwiſe I muſt think that the right uſe of Cantharides was unknown to the ancient Phyſitians of the old world, as by *Galen* it may appear in his 11. Book *De Simplic. Med. fac.* and in his fourth Book *De victu Acut.*

The ſame *Pliny* (in his twenty nine Book and fortieth Chapter) witneſſeth, that Cantharides were reproachfully laid to *Cato Uticenſis* charge, and that he was ſorely blamed for offering to make a price of poyſons, and to ſell them openly, as in Port-ſail to any that would give moſt, ſo that their price roſe to threeſcore ſeſterties. Being drunk in too large a quantity, or elſe applied outwardly to any part, either too long or too deep, they produce theſe or the like ſymptomes, accidents, and effects.

The party to whom they are any way given, feeleth a pricking pain and torment in his bowels and inward parts, extending from the mouth down to the lower parts about the Bladder, Reins, and the places about the waſte and ſhort ribs: they do alſo ulcerate the bladder very dangerouſly, inflaming the yard, and all other parts neer the ſame with a vehement apoſtumation: after this, they piſſe bloud, and little pieces of fleſh.

Otherwhiles there will follow a great laſk or Bloudy-flix, fainting and ſwounding, a numneſſe or dulneſſe of moving or feeling, debilitation, or feebleneſſe of the minde, with alienation of the wit, as though they were beſtraught; likewiſe lothing or abhorring of meat with a diſpoſition to vomiting, and often an ordinary deſire to make water, and to exonerate nature, but all in vain. He that taketh them findeth in his mouth the taſt or tallage of Pitch: and all theſe ſymptomes, paſſions, or effects, that they work, have I with much labour faithfully collected out of the ſixth Book of *Dioſcorides*, and the firſt Chapter. And out of *Galen Lib. de Theriaca ad Piſonem Cap*. 4. and *Lib*. 3. *de Temperam. cap*. 3. And out of ancient *Rhazes* (who practiſed Phyſick one hundred years, if truth be truly related) Tit. 8. chap. 17. If any one be either affected or infected with any accidents, by means of Cantharides, *Dioſcorides* doth thus cure them, as you may readily finde in the Book and Chapter before cited.

Firſt of all he cauſeth them to vomit often and much: and after that he preſcribeth Glyſters to be made for the ſcouring of the belly with Nitre, and to preſerve the bladder inwardly, to take Milk and *Pſyllum*: and then he would have the matter of Glyſters to be ſomewhat different from thoſe which were taken in the beginning: as namely to be made of Barley water, Marſh-mallows, the white of an Egge, the Muſciling of Line-ſeeds, Water of Rice, the decoction of Fenugreek, Hydromel, fat Broaths, Oyl of Almonds, the fat of a Gooſe, and the yelks of Egges. And inwardly to take at the mouth, he biddeth them to uſe Cows milk, Hydromel, the grains or fruit of the Pitch-tree, both the greater and the leſſer ſort, Wine ſod to the half, Ducks fat, a decoction with ſome diuretical ſeeds (namely with the four greater cold ſeeds, which are Cucumbers, Gourds, Citrals, and Melons) and likewiſe ſome decoction made of Figs, with ſyrup of Violets. Oyl of Quinces is highly commended of ſome as a proper and ſpecial Antidote in this caſe, and ſo is Oyl of Lillies, and *Terra Samia*.

Rhazes counſel is, after the taking of ſome Glyſters made of any fat broaths, to make an injection into the yard with Oyl of Roſes, and the ſick perſon to ſit in a warm Bath. *Tit*. 8. Chap. 17. The Writers and Authors of Phyſick and Philoſophy cannot agree, in what part of the Cantharides their poyſon chiefly lurketh: for ſome will have it to be principally in the head and feet, and others again will none of that: And yet they all agree upon this point, that in what part of the body ſoever their poyſon is ſeated, that their wings are a ſoveraign remedy and preſervative, and if they be wanting, that their poyſon is deadly: ſo that although they be never ſo poyſonous, yet have they their own remedy which in themſelves they contain and carry about: Thus ſaith *Pliny* in his 11. Book and 35. chapter.

And peradventure for the ſame cauſe, *Galen* in his eleventh Book, which he intituled *De Simplic. Medicament. facultatibus*, adviſeth us expreſly and learnedly, that Cantharides ſhould be taken whole as they are, and ſo to be uſed either for inward or outward uſes. For why it is far better, even in the outward application of them, that they ſhould more gently and ſlowly corrode, gnaw, or fret aſunder, and that their burning vertue and quality ſhould be a little corrected and weakened, then to perform their full effect to the great danger of the patient, and many times to his utter undoing and deſtruction. Therefore they are clean out of the way, who when they would uſe them for any inward cauſe, do caſt away their wings and feet, whereas indeed they ought to take all of them, not rejecting any one part of them. For being given whole, they need not ſo much any correctives to bridle and leſſen their powerful operation in regard of their wings and feet, the proper reſiſters and expellers of their own or other poyſon.

The error of ſome medicine-givers.

The ſafeſt courſe is to uſe all, and every part of them without exception, unleſſe you would have them to corrode, fret, inflame, or burn any part. *Lycus Neapolitanus* is of opinion, that Purcelane is their proper counter-poyſon, which vertue *Pliny* in his twentyeth Book, Chap. 13. aſcribeth to the herb called wilde Baſil: who alſo many ways commendeth *Acetum Scyliticum*, *Oleum Oenanthium*, Cows milk and brethes made of Goats fleſh for theſe intentions, in his 23. Book, Chapter the ſecond and fourth, and likewiſe in his 28. Book and tenth Chapter. And for our Hiſtory of Cantharides, let this for this time ſuffice, which I much wonder that the famous learned *Geſner* hath in ſuch deep ſilence paſſed over, never ſo much as mentioning them: whereof notwithſtanding ſo many Authors, both of the Ancients and Neotericks, do ſo much ring.

Many moe authorities could I have alleadged concerning this my diſcourſe of Cantharides, but that I ſuppoſe it a labour as endleſſe in toyl, as needleſſe in uſe; the one ſavouring of too much curioſity, the other of a frivolous affectation: ſo that I hope even amongſt the whole College of Phyſitians, whereſoever in **England** (if their ears be not too dainty) to finde ſome few grains of their good words, and ſuch curteous conſtruction, as that I may neither be charged with partiality of concealing (where it is meet I ſhould be mute) nor be ſuſpected of unſufficiency, for not purſuing where I can finde no good footing.

Of CATERPILLERS, *or* PALMER-WORMS, *called of ſome Cankers.*

Their name.

NOw I am come to ſpeak of Caterpillers, ſometimes the deſtroyers and waſters of *Egypt*: as well in regard of the great difference that is found in their ſeveral ſorts, as for their great dignity and uſe, wherein ſome of them are moſt notable and excellent. Some think that *Eruca*, which is Engliſhed a Caterpiller, hath his derivation *ab erodendo*, which is not altogether improbable: For they gnaw off and conſume by eating, both leaves, boughs, and flowers: yea, and ſome fruits alſo, as I have often ſeen in Peaches.

Ovidius the famous Poet, ſtileth them by the name of *Tineæ agreſtes*:

> *Quaque ſolent canis frondes intexere filis,*
> *Agreſtes Tineæ, res obſervata colonis,*
> *Feraci mutant cum papilione figuram.*

In Engliſh thus;

> *And thoſe wilde Mothes by husbandmen obſerved,*
> *Which fold themſelves in hoary ſpringing leaves,*
> *Gainſt force of famine, and ſtorm to be preſerved,*
> *A ſhape from fruitful Butterflies receives.*

The *Grecians* call a Caterpiller *Kampe*, by reaſon of his crooked winding or bending pace in waving ſort, whereby in creeping they bow, wry, and lift up themſelves. Of the *Hebrews* it is termed *Ghazain*, becauſe it ſheareth, pilleth, and devoureth the fruits of the earth, as *Kimhi* upon the firſt of *Joel* writeth. The *Italians* call it *Rugaverme*, and *Brucho*, for ſo *Marcellus Virgilius* upon *Dioſcorides* ſaith expreſly, that in his time all the people of *Italy*, named it *Erucæ*, *Bruchi*. The *Spaniards* term it *Oruga*. The *Frenchmen*, *Chenille*, and *Chattepeleuſe*. Of the *Engliſh* they are commonly called Caterpillers, of what kinde ſoever they be of. But the *Engliſh* Northern men, call the hairy Caterpillers, *Oubuts*, and the Southern men uſually term them *Palmer-worms*. Of the *Polonians* it is called by the name of *Ruphanſenka*. In the *German* tongue *Ein Raup*. In the *Belgian*, *Ruipe*. Of the *Illyrians*, *Gaſienica*. And *Silvaticus* will have it called *Certris*, and *Cedebroa*.

Their differences.

If I ſhould go about to deſcribe and ſet down all the differences and varieties of Caterpillers, I might perhaps undertake an endleſſe and tedious labour. I think it therefore fitteſt to bend my ſlender skil, and to imploy my beſt forces, in ſpeaking of ſuch as are more notable and common with us in this Countrey: For ſome of them in touching are rough, hard, and ſtiffe; and otherſome again, are ſoft, ſmooth, and very tender. Some are horned either in the head or in the tail; and again, others have no horns at all. Some have many feet, and ſome fewer, & none at all have above ſixteen feet. Moſt of them have a bending ſwift pace, and like unto waves, and others again keep on their way very plainly, ſoftly, by little and little, and without any great haſt. Some change their skins yearly, others again there be that neither change nor caſt their old dry skins, but keep them ſtill. Some of them ceaſing altogether from any motion, and giving over to eat any thing at all, are transformed very ſtrangely into a kinde of vermin or worms, who being covered with a hard cruſt or ſhell, lie as it were dead all the Winter; and from theſe come in the beginning of hot weather, our uſual Butter-flies.

Many of theſe Caterpillers are bred of the egs of Butter-flies; and ſome again do breed in the leaves of trees, of their own proper ſeed, being left there in the time of Autumn, included in a certain web, or elſe by means of the dew or air, therein ſhut and putrefied, as commonly the little hairy Cankers or Caterpillers which are ſo full of feet, do breed. Beſides, ſome of them do feed on leaves, ſome on flowers, and there are ſome which devour fruits.

All ſmooth Caterpillers which are not hairy, are of a yellow or green colour: ſome again are found of a reddiſh colour, or browniſh, or elſe they be of ſundry hews. But of all others, the moſt excellent is the green coloured Caterpiller, which is found upon that great buſhy plant, uſually tearmed Privet, or Primprint, which hath a circle encloſing round both his eyes and all his feet, having alſo a crooked horn in his tail: theſe Caterpillers are blackiſh-red, with ſpots or ſtreaks going overthwart their ſides, being half white, and half purpeliſh, the little pricks in theſe ſpots are inclining to red: The reſt of their body is altogether green.

There is another Caterpiller feeding altogether upon Elder-trees, not much differing from the former, ſaving that this is altogether of a green colour, and wanting thoſe overthwarting croſs white marks or ſpots, and the other ſmall white pricks which we deſcribed in the former.

There is alſo a third ſort of green Caterpillers, which when Autumn or the fall of leaf draweth on, are turned into a certain ſheath or caſe, being of a very hard and horny ſubſtance, of colour very brown, and this feedeth altogether upon Pot-herbs, eſpecially thoſe that be ſoft, as Lettice: whereupon it may not unfitly be termed, *Eruca Lactucaria*.

Laſtly, there is to be ſeen another ſort, of a green colour, which is the leaſt of them all, and this kinde liveth and feedeth upon trees, (eſpecially in the Oke) there drawing out their web, by means of which being ſtirred and ſhaken, they eaſily fall down upon the heads of travellers and paſſengers by the way ſide, cleaving to their hats and garments. And this kinde of Caterpiller is too well known and found in the Summer time, and when cold weather approacheth, they fold themſelves into a rude, plain, and nothing curious web. And thus being included in a greeniſh ſcabbard or caſe tending to red, they all die in Winter, and all theſe have ten feet, as all they have that go bending themſelves upwards. But to leave the green, and come to them that are yellow, there is to be found a certain Caterpiller called *Vinula*, being as the word ſoundeth, a very elegant and fine inſect to look upon, and paſſing beautiful: and this kinde have I often found amongſt Willows, full ſavourly feeding upon their leaves. His lips and mouth are ſomewhat yellow, his eyes black as a cole, his fore-head purple coloured, the feet and hinder-part of the body, of a green graſſie hue, his tail two-forked, and ſomewhat black. The whole body is as it were ſtained and dyed with thick Red-wine, which runneth alongſt the neck and ſhoulder-blades, as it were in form of a *Burgonian* croſſe, or of the letter X, made croſſe-wiſe down unto the tail with a white line, addeth no ſmall grace to the other parts.

There is yet another Caterpiller of yellow-blackiſh colour, called *Porcellus*, we may in Engliſh call it Pigs-ſnout, in reſpect of the faſhion of the head, eſpecially the greater ſort of theſe, for the leſſer have round white ſpecks upon their ſides, and theſe live and are altogether to be found amongſt the leaves of the Marſh Trifoly, which they conſume and devour with an incredible celerity. In the wilde Night-ſhade, (which the *Italians* call *Belladona*) there is found a ſmooth Caterpiller of a yellow-greeniſh colour, having a horn in his fore-head the length of a finger, which *Hierom Cardan*, the learned Phyſitian, reporteth that he had often ſeen.

The deſcription of Pityocampes.

The hairy Caterpillers are moſt miſchievous and dangerous amongſt them all, and theſe are either thick or thin haired, and the moſt venomous is that which is called *Pityocampe*, whoſe biting is poyſon: and this is ever found in the Pine-apple-tree, being as thick as three little fingers, and three fingers long being laid a croſſe. They conſiſt of eleven ſlits or cuts betwixt the head and the tail, and they have ſixteen feet, according as all other hairy Palmer-worms have. That is to ſay, neer the head on both ſides, there, in the midſt of their body on both ſides, four, and at the end of the tail on both ſides, one. Their former feet are crooked and ſmall, with which they feel, try and aſſay the way whether it be paſſable or no, their other feet are broader, with many jags and notches like a ſaw, to take the faſter hold, and ſtay with ſurer footing upon ſmooth and ſlippery leaves. Their head is much like a Piſmires, and the reſt of their bodies like other common Caterpillers. They are rough, and full of briſtly ſtanding up hairs on all ſides, and thoſe in their ſides are white, but thoſe on their backs do ſhine, being very bright and gliſtering, the midſt whereof is garniſhed with many ſpots, as though it were full of eyes.

Their skin is black which is ſoon ſeen, their hairs being cut or taken clean away. All their hairs are but ſmall, and yet they ſting more vehemently then any nettle, whereby is cauſed intolerable pain, burning itching, a Fever, and much diſquietneſſe: when as their poyſon is ſuddenly in a moment ſent and conveyed without any manifeſt appearance, or ſenſe of any wound to be judged by the eye, unto thoſe parts that are next the entrails, as the heart, liver, and the reſt. They weave their webs after a fine and exquiſite manner, as Spiders do, drawing out in length, framing and trimming in good order, their hairy ſmall threads. And under theſe when night draweth on, they lie as in their own proper tent and pavillion, aſwell to avoid cold, as the incommodities of furious blaſts and ſtorms: for the matter and ſubſtance of this their tent is ſo handſomely wrought, ſo firm, ſtiffe, clammy and ſure, that they neither care for furious windes, nor yet any rain or ſtorm will ever ſoke through. Beſides, the largeneſſe of this houſe is ſuch, and of ſo great receit, as it will eaſily receive and lodge many thouſands of Caterpillers. They make their neſts or buildings in the higheſt branches of the Pitch and Pine-trees, where they live not ſolitarily (as other Palmer-worms do) but in flocks or companies together. Which way ſoever they take their journey, they are ſtill ſpinning and drawing out their threads for their web, and early in the morning (if it be likely to prove fair) the younger ſort by heaps attend the elder, and having firſt bared and robbed the trees of all their boughs and leaves, (for they make clean riddance of all whereſoever they come) they afterwards dexterouſly bend themſelves to their weaving craft. They are the only plague and deſtruction of Pitch and Pine-trees, for unto any other roziny or gummy trees they never do harm.

There is great plenty of them to be found in the Mountain of *Athos*, ſituate betwixt *Macedonia* and *Thrace*, in the Woods of *Trident*, and in divers Valleys beyond the *Alpes*, in which places there is ſtore of theſe fore-named trees, (as *Matthiolus* ſaith.) They are doubtleſſe moſt poyſonous and venomous vermine, whether they be cruſhed outwardly with the hands, or taken inwardly into the body: yea they are ſo known, manifeſt, and ſo never failing a poyſon, and ſo eſteemed of in times paſt, as that *Ulpian* the famous Lawyer, interpreting the Law *Cornelia de Sicariis*, or privy murtherers, that he in that place, calleth and eſteemeth the giver of any Pityocampie in drink or otherwiſe to any one, to be doomed a murtherer, and their puniſhment to be equallized. *Sect. Alium ff. ad Leg. Corn. de ſic.*

As ſoon as this kinde of Caterpiller is received into the body, there followeth immediately a great pain, extremely tormenting the mouth and palate, the tongue, belly, and ſtomach are grievouſly inflamed by their corroding, and gnawing poyſonous quality, beſides the intolerable pain the receiver feeleth, although at firſt the party ſeemeth to feel a certain pleaſant itching, but it is not long before he perceiveth a great burning within, loathing and deteſting of meat, and a continual deſire to vomit and go to the ſtool, which neverthelesſe he cannot do. At length, unleſſe ſpeedy ſuccour be given, they ſo miſerably burn and parch the body, that they bring a hard cruſtineſſe, ſkurffe or ſcald upon the ſtomach, as though the ſides thereof had been plaſtered with ſome hard ſhards, or other like things, after the manner of Arſenick, as *Dioſcorides*, *Aetius*, *Pliny*, and *Celſus* do aſſure us. In like manner *Galen* in his eleventh Book *Simp. cap.* 50 and *Avicen* 505. *cap.* 25. have teſtified the ſame.

And for this cauſe *Aetius* and *Aegineta* do ſay, that it is nothing wholeſome for any to ſit down to meat, to ſpread the Table, or make any long tariance under any Pine tree, leſt peradventure through the ſavour or ſmell of the meats, the reek or vapour of their broaths, or noiſe of men, the Pityocampies being diſturbed from their homes and uſual reſting places, might fall down either into their meats beneath, or at leaſt-wiſe caſt down, or let fall any of their ſeed, as poyſonous as themſelves. They that receive hurt by them, muſt have recourſe to thoſe preſervatives and medicines, as were preſcribed to thoſe that were poyſoned by Cantharides, for by them they are to be cured, and by no other means. Yet for all that, Oyl of Quinces is properly commended to vomit withall in this caſe, which muſt be taken twice or thrice, even by the preſcript of *Dioſcorides* and *Aetius*. They are generated, or to ſpeak more aptly, they are regenerated (after the manner of Vine-fretters, which are a kinde of Caterpillers, or little hairy Worms with many feet, that eat Vines when they begin to ſhoot) of that Autumnal ſeed of theirs, left and reſerved in certain ſmall bags or bladders within their webs.

There is another ſort of theſe Caterpillers, who have no certain place of abode, nor yet cannot tell where to finde their food, but like unto ſuperſtitious Pilgrims, do wander and ſtray hither and thither, and (like Mice) conſume and eat up that which is none of their own: and theſe have purchaſed a very apt name amongſt us Engliſhmen, to be called Palmer-worms, by reaſon of their wandering and roguiſh life, (for they never ſtay in one place, but are ever wandering) although by reaſon of their roughneſſe and ruggedneſſe, ſome call them Bear-worms. They can by no means endure to be dieted, and to feed upon ſome certain herbs and flowers, but boldly and diſorderly creep over all, and taſt of all plants and trees indifferently, and live as they liſt.

There are ſundry other ſorts of theſe Cankers or Caterpillers to be found, in the herbs called Cranesbil, Ragwort, Petie-mullen, Hops, Coleworts, Haſels, Marigolds, Fennil, Lycorice, Baſil, Alder, Nightſhade, Water-betony, Garden-ſpurge, and other ſorts of that herb; in Elm-trees, Pear-trees, Nettles, and Gilliflowers. Yea there is not any plant to be found, which hath not his proper and peculiar enemy and deſtroyer: all which becauſe they are ſo commonly known of all, though perhaps not of all obſerved, I will (leſt I ſhould ſeem to be infinite) paſſe over with ſilence. But yet I will adde a word or two of a ſtrange and ſtinking Caterpiller, which it was never my hap as yet to ſee, deſcribed by *Conradus Geſner*, in theſe words following: This ſtinking Caterpiller (ſaith he) is very like to thoſe that are horned, but yet it wanteth horns, differing from them all in colour. I firſt eſpyed it creeping upon a wall toward the end of *Auguſt*, *Anno* 1550. there cometh from it a lothſome and an abominable ſavour and ſmell, ſo that you would verily believe it to be very venomous. It went forwards very frowningly, and with a quick, angry, and deſpightful countenance, as it were in bending wiſe, the head always ſtretched up aloft with the two former feet: I judge her to be blinde. She was the length and breadth of a mans finger, with a few ſcattering and rugged hairs, ſomewhat briſtly and hard both on her back and ſides, the back was very black, the colour of her belly and ſides was ſomewhat red, enclining to yellow, and the whole body was diſtinguiſhed, divided, and eaſily diſcerned with fourteen joynts or knots, and every joynt had a certain furrow like a kinde of wrinckle running all along the back. Her head was black and ſomewhat hard: her mouth crookedly bending like hooks, having teeth notched like a ſaw, and with theſe teeth as with pincers or nippers, whatſoever ſhe laid hold on, ſhe (as famiſhed) did bite. She went on ſixteen feet, as for the moſt part all the ſorts of Palmer-worms do. Without doubt, ſhe muſt be concluded to be exceeding venomous.

The learned man *Vergerus*, took it to be a Pityocampe, and others thought it a Scolopendra: but that could not be, by reaſon of the number of her feet. I could hardly with much ado endure her vile ſmell, till I had drawn out her deſcription. She ſo infected two Hot-houſes with her abominable ſavour and ſtink, that my ſelf and they that were with me, could not endure in the place. Thus far *Geſner*, as I have to ſhew out of certain ſcroles of paper of his, never as yet imprinted.

Now will I proceed to diſcourſe of the original, generation, aliment, and metamorphoſis of Caterpillers.

Chare liber, noſtrûm teſtis bene fide laborum,
Ne tua purpureo ſuffuderis ora rubore
Agreſtes abacis tineas ſi expreſſero noſtris,
Vermiculoſq; levem qui in thecam vellera mutant.
Hi ſiquidem artificis prudenti pollice Divi
Finguntur, tenui qui non tenuatur opella

Et qui vermiculis, dextræ miranda potentis
Signa ſuæ prodit, potius quam corpore vaſti
Moliſero Barbi, tumido vel robore Ceti
Squamantiſq; aliis; qui lata per æquora tentant
Fulmineas ſine mente minas: & noſtra profundo
Lintea quæ mergant, largo mare gutture ructant.

Which may be Engliſhed thus;

Deer Book, a witneſſe of my labour true,
Be not aſhamed to write of little worms,
Nor Caterpillers, which from baſe things enſue,
And into eaſie caſes again returns:
For theſe are fram'd by hand of God moſt wiſe,
Never abaſed in any work ſo ſmall:
For out of Worms his wonders do ariſe,
As well as from great Beaſts ſo tall,
Tower bearing Elephant, huge Whale,
And other monſters ſwimming in the Seas,
Ireful beaſts, in hills and deepeſt dale,
Death threatning to all that them diſpleaſe.

For ſo I think it beſt to begin with the verſes of a good Poet, who indeed did ſee and admire the inſcrutable wiſdom and divine Providence of the Almighty, in the generation and breeding of Caterpillers. Which whileſt divers Authors laboured to expreſſe and ſet down diverſly, I know not what clowds of errors they have thruſt us into; for ſwarving themſelves beſides the way, although they pretend a matchleſſe underſtanding in theſe myſteries of Philoſophy, they have cauſed others to tread awry as much as themſelves, and to be blinded with the maſcarados of abſurdities. And firſt, if we will begin to rifle in the monument of former times, I will here produce *Ariſtotles* opinion in his fifth Book, *Hiſtor. cap.* 19. who there expreſly ſaith, that they take their beginning from the green leaves of herbs, and namely of Radiſh and Coleworts, by means of their ſmall ſeed of generation, being like unto Millet-ſeed, which is there left about the end of Autumn, from which female Worms proceed: and of theſe little Worms in the ſpace of three days a Caterpiller is formed, about the Spring time, or toward the later end thereof, which growing to their due quantity, and well fed withall, they ceaſe at length from any further motion, and when Autumn beginneth, they change both form and life.

Pliny is of this minde, that Caterpillers fetch all their pedegree, race, parentage and birth, from a dew thickned and incraſſated by the heat of the Sun, and ſo ſtill left behinde in leaves: and *Arnoldus de Villa nova* is of the ſame judgement. Otherſome derive them wholly from Butter-flies, and will have them to proceed of no other beginning, which as ſoon as they are crept out of their hard ſhells or ſcabbards, wherein they had lain as it were dead all the Winter, aſſoon as Summer and warm weather draweth on, they caſt certain eggs either under or above the leaves of certain herbs, which egges according to the quantity of their bodies, are either greater or leſſer, and ſome of theſe ſhells wherein they are included, are of a sky colour; others yellow, white, black, green, or red: and ſo being at length about fourteen days quickned and nouriſhed with the lively and kindely heat of the Sun, their ſhell-houſe being broken, firſt cometh forth ſmall Caterpillers, like unto little Worms, ſaving that they are diverſly coloured, who at their firſt appearance, being as it ſhould ſeem very hungry, do altogether bend themſelves to devour and eat up both leaves and flowers, eſpecially of thoſe trees and plants whereon they were whileſt they were in egges.

But I am of opinion, that not only this, but by divers other ways and means they may proceed and increaſe, for although the doctrine of *Ariſtotle* in this point ſeemeth to be unſavoury, and nothing reliſhing divers taſtes, becauſe he affirmeth, that that little Worm which is found upon Coleworts, doth turn into a Caterpiller: yet for all that, it is not ſo much without ſmack of ſalt, or ſo abhorrent to reaſon as they would make ſome believe. For Nature, as ſhe is able, and doth produce and bring forth a living creature from an Egge, ſo likewiſe from a Worm ſhe breedeth a more perfect living creature, by many degrees; and that not by way of corruption, but by way and means of her excellent perfection. For although a Worm afterwards be not that thing which before it was, (ſo far as is apparent to outward ſenſe) yet for any thing we can gather or perceive, it is that which it was, and this *That*, is more by a great deal now, then before it was. For a Worm dyeth not, that a Caterpiller may thereby ſpring, but to the old body, Nature addeth a greater magnitude: as for example, feet, colours, wings: ſo that whileſt life remianeth, it acquireth other parts and other offices.

There be ſome alſo that deride the opinion of *Pliny*, becauſe he contendeth that Caterpillers have their beginning and production from dew. But it may not be denyed in my conceit, that ſome imperfect ſmall creatures are bred and take life from dew, and not without great reaſon. For the Sun by his kindely heat and warming quality, worketh and acteth, being as it were the form, and the moiſture or humor is *Paſſive*, as the matter or the ſubject, for the heat of the Sun is different from that of the fire: for it either quickneth and inſpireth with life, or at leaſt-wiſe conſerveth and maintaineth our life, by means of likeneſſe, proportion, or ſymmetry, wherein our lives and ſpirits reſpect each other. Beſides, there is nothing more nouriſhing then Dew, for with it only ſome certain ſmall creatures are fed, and do thereby live: which thing the divine Poet very well obſerved, when he uttered theſe words;

Quantum nos nocte reponit.

So that in reſpect that it is humour, it is matter, in reſpect it is thin, it pierceth and eaſily entreth in, and in reſpect it is attracted and throughly concocted by the Sun, it is the apter made to generation. For the preparation of the form, carryeth with it the matter or ſtuffe, as his mate and companion: So theſe two meeting together, there conſequently followeth the quickning or taking life of ſome one creature. And not only are ſome Caterpillers the off-ſpring and breed of dew, as common experience can witneſſe, but even the greateſt part of Caterpillers do fetch their ſtock and pedegree from Butter-flies, unleſſe it be thoſe that live upon Coleworts and Cabbages, and thoſe that are called Vine-fretters, with ſome few other. For thoſe that live and breed in Vines, (called of the *Grecians*, *Ipes*,) do proceed from dew, or ſome dewy and moiſt humor, which is included in their webs, and there grown to putrefaction. For then do they ſwarm ſo exceedingly in ſome Countries, as I dare neither affirm, nor otherwiſe imagine, but that they muſt needs have ſuch a mighty increaſe from putrefaction. And this for the moſt part happeneth when the Eaſtern winde bloweth, and that the warmth of the air furthereth and haſteneth forwards any corruption.

All the whole pack of them are great deſtroyers and devourers of herbs and trees: whereupon *Philippus* the Paraſite, as *Athenæus* ſaith in *Pythagoriſta*, braggeth of himſelf in this wiſe, *Apòlauſa thumon lachanoute kampe. Veſcens thymo olereq; eruca ſum.* I am (ſaith he) a Caterpiller that eateth both Thyme and Pot-herbs. And to this ſenſe ſpeaketh *Martial*, *Erucam malè paſcit hortus unam.* A Garden hardly and ſlenderly can ſuffice to feed one Caterpiller. I think he meaneth, when the time of their waſting and devouring is gone and paſt, for they commonly leave but little behinde. For that being paſt, they go wandering hither and thither, up and down uncertainly, waſted and hunger-ſtarved, and ſo at length pining away by little and little through famine, ſome ſeek them fit places within, other-ſome above the earth, where they transform themſelves, either into a bare and empty bag or caſe, or hanging by a thread into an *Aurelia* covered with a membrane.

If this happen in the midſt of Summer, the hard rinde or ſhell wherein they are incloſed being broken, about the time of 24. days, there flieth out a Butter-fly: but if it come to paſſe in the midſt, or toward the end of Autumn, the *Aurelia* continueth a whole Winter, neither is there any excluſion before the vernal heat. And yet notwithſtanding, all Caterpillers are not converted into *Aureliaes*, but ſome of them being gathered and drawn together on a heap (as the Vine-fretters) do grow at length to putrefaction, from which ſometimes there falleth as it were three blackiſh Egges, the true and proper mothers and breeders of Flies and Cantharides. When the Butter-flies do joyn together very late, or after the time it ought to be, they do lay or caſt their Egges, which will continue vital, and that may live till the next Spring, (if a diligent care be had of them) as well as is often ſeen in Silk-worms, whoſe Egs the *Spaniards* ſell, and that very uſually by whole ounces and pounds. I have now according to my cunning, diſcourſed of the tranſmutations and variable changes of Caterpillers; it followeth next that I write of the qualities and uſe of Caterpillers, together with thoſe preſervatives which experienced Phyſitians have warranted for true and infallible.

Their qualities.

All Caterpillers have a burning quality, and ſuch as will readily fetch off the skin, and flea it quickly, and raiſe bliſters. If any one drink the Caterpiller that liveth in the Pitch trees, there will forthwith follow a great pain about his mouth and jaws, vehement inflamation of the tongue, ſtrong griping and wringing of the Stomach, belly and inteſtines, with a ſenſible itching about the inward parts, the whole body is as it were burned and ſcalded with heat and hot vapours, and the ſtomach abhorreth all meat: all which are to be remedied with the ſame means, as thoſe that have taken Cantharides. Yet properly, (as heretofore I have touched) Oyl of Quinces given to cauſe vomiting, is the beſt and ſafeſt. And if we may credit *Pliny*, new Wine boyled to the third part; and Cows milk being drunk, are very effectual. There is not any one ſort of Caterpillers, but they are malign, naught, and venomous, but yet they are leaſt hurtful who are ſmooth and without hairs; and the moſt dangerous of all the reſt, is that which heretofore I termed a Pityocampe, whoſe poyſon for the moſt part is deadly.

The daughter of *Cælius Secundus* living at *Baſil* in *Germany*, (as *Geſner* ſaith) when ſhe had unwarily and greedily eaten ſome Colewort-leaves, or Cabbage in a Garden, and with them ſome Caterpillers, after a ſtrong vomit that was given, her belly began to ſwell, which ſwelling, having continued theſe many years, could never as yet receive any cure. If you will have your Gardens and Trees untouched and preſerved from their miſchievous quality, you muſt firſt take clean away in the Winter time their webs, or any part thereof (though never ſo little) that you can finde cleaving to the bare boughs: for if you let them alone till the Spring, you ſhall ſooner ſee them, then finde them removed, for in a ſhort ſpace of time they devour up all that is green both leaves and flowers. Some uſe to anoint their trees with the gall of a green Lizard, and ſome with a Bulls gall, which as ſome conſtantly report, they can by no means away withall.

The Countrey people choke them with the vapour of a little Brimſtone, with ſtraw being fired under the tree, and ſo to ſmoother them. Some there be that make a fumigation with *Galbanum*, Harts-horn, the ſhavings of Ivory, and Goats hoofs, and Ox-dung. *Didymus* in *Georgicis* ſaith, that if you bare the roots of your trees, and beſmear or ſoyl them with Doves dung, they ſhall never be hurt by any Worms.

I ſhould willingly have omitted, and not renewed with any freſh diſcovery *Columellaes* remedy againſt Caterpillers, (or rather the immodeſt deceit and deluding trick of *Democritus*,) unleſſe experience, which is, *Iterata ejuſdem eventus obſervatio*, a repeated obſervation of the ſame event, had approved the verity thereof, eſpecially in the Countrey of *Stiria*. And *Palladius* in his firſt Book ch. 35. and *Conſtantinus* neer the end of his 11. and 12. Books, whoſe words be theſe;

At ſi nulla valet medicina repellere peſtem,
Dardaniæ veniunt artes, nudataque plantas
Fœmina, quæ juſtis tum demum operata juventæ

Legibus, obſcœno manat pudibunda cruore,
Sed reſoluta ſinus, reſoluto mœſta capillo
Ter circum areolas, & ſepem ducitur horti:

Quæ cum luſtravit gradiens (mirabile viſu)
Non aliter decuſſa pluit quam ex arbore nimbus,
Vel teretis mali, vel tectæ cortice glandis,
Volvitur ad terram diſtorto corpore campe.

Which may be Engliſhed thus;

But when no medicine can that plague expell
Then uſe they Arts, which once the Trojans found,
A woman which had Virgin-laws obſerved well,
Her bare and naked bring they to the ground,
Flowing with Natures ſhameful filthy bloud:
Her boſome open, and her hair untrimmed falling
Like one ore'preſt with grief, forgetting good,
Three times about the plots and hedges walking.
Which done, a wonder tis for to be told,
As rain-drops from the trees, ripe Apples fall,
Walnuts out of husks: ſo caſt you may behold
Theſe Worms from trees, all torn, and cannot crall.

Theophraſtus ſaith, that Caterpillers will touch no plants which are moiſtened or beſprinckled with Wine. They will die if they take the fume, or be any way ſmoaked with the herb *Pſora. Aetius.* Whereby it is apparent (ſaith *Silvius*) that the herb commonly termed Scabious is not the true *Pſora.* Caterpillers that live and feed on Coleworts, if they be but touched with that kinde of Worm which is found in the Fullers Teaſel, they die. *Pliny.* All to beſprinkle a Colewort whileſt it hath but only three leaves, with Nitre, or with ſaltiſh and briniſh earth, and by means of the ſaltneſſe, the Caterpillers will be quite driven away. *Geopon. Palladius* in this caſe preferreth the aſhes of Fig-leaves. The Sea-onion called *Squilla,* being ſown or hanged up in Gardens, hindereth the breeding of Caterpillers. Otherſome in the moſt places of their Gardens, and round about them, ſow and ſet Mints, the pulſe called Orobos, which is ſomewhat like Vetches, and ſome Wormwood, or at leaſt-wiſe hang them in bunches in divers places of the ſame, to expell this kinde of noyſome creature.

Some very adviſedly take dry leaves and ſtalks of Garlick, and with the ſame do ſmoke and perfume their whole Garden, ſo that by this way the ſmoke being conveyed into all places thereof, the Caterpillers will fall down dead, as *Palladius* hath written, in whoſe writings any man may read of plenty of ſuch Antidotes and Alexipharmical medicines, as may ſerve to deſtroy Caterpillers.

Their uſe in Phyſick.

Now will I ſpeak of their uſe in Phyſick, and in the Common-wealth. The web of Caterpillers being taken inwardly, ſtayeth womens fluxes, as *Matthiolus* ſaith. Being likewiſe burnt and put into the noſtrils, it ſtancheth bleeding at the noſe. The Caterpillers that are found amongſt the herbs called Spurges of all ſorts, (by the judgement of *Hippocrates*) are notable for purulent and mattery Wombs, eſpecially if they be firſt dryed in the Sun, with a double quantity of Earth-worms, and a little Aniſeed finely powdered, and ſo all of them to be relented, and taken in ſome excellent White-wine. But in caſe they feel any heavineſſe or aking in the belly after the taking of this medicine, then it were good to drink a little Mulſe thereupon. This ſaith *Hippocrates* in his Book *De Superfœtat.*

Dioſcorides in his firſt Book and 90. chapter, giveth in drink thoſe common Caterpillers that live in companies together, againſt the diſeaſe called the Squinſie. But unleſſe by ſome hid and ſecret property, they do good in this grief being received inwardly, it were needful (in regard of their manifeſt venomous nature) that they were utterly rejected and contemned. *Nicander* uſeth them to provoke ſleep, for thus he writeth;

Ei de ſuge tripſas oligo en bammati kampen
Kepeien droſoeaſtan epi chloreida noto, &c.

Which *Hieremias Martius* hath thus tranſlated;

Quod ſi rodentes olus & frendentia vermes
(Lueva quibus virides depingunt terga colores)
In medio ſacra de Palladis arbore ſucco
Triveris, hincq; tuum colleveris undiq; corpus,
Tuta dabis dulci ſecurus membra quieti.

Which may be Engliſhed thus;

With herb-eating, or green-leaf-gnawing Worms,
Whoſe backs imprinted are with colours lively green,
All bruiſed, mixed with juyce from Pallas tree that runs,
Anointed body brought to ſound ſleep is often ſeen.

There are to be ſeen in divers thorny, prickly, ſharp and rough herbs, (as for example in Nettle) ſundry hairy or lanuginous Caterpillers, which being tyed or hanged about ſome part of the body, do by and by (as the report goeth) heal thoſe Infants which have any ſtopping of the meats paſſage when they cannot ſwallow.

A Caterpiller breeding in Pot-herbs, being firſt bruiſed and then anointed upon any venomous bitings of Serpents, is of great efficacy: and if you rub a naughty or a rotten tooth with the Colewort-caterpillers, and that often, within a few days following, the tooth will fall out of his own accord. *Avicenna.* Caterpillers mixt with Oyl, do drive away Serpents. *Dioſcorides.* If a man anoint his hands, or any other part with Oyl, it will cauſe that he ſhall receive no hurt by the ſtinging of Bees, Waſps, or Hornets, as *Aetius* ſaith. *Pliny* citeth many fond and ſuperſtitious fained matters, and lying tales, deviſed by thoſe who in his time were called *Magi,* Soothſayers or Diviners, concerning the admirable vertues of Caterpillers. All which, becauſe I ſee them hiſſed out of the School of

Divinity, and that in heart ſecretly I have condemned them, I will at this time let them paſſe without any further mention.

They are alſo a very good meat to divers Birds and Fowls, which are ſo needful for the uſe, benefit, and food of mankinde, as to Starlings, Peacocks, Hens, Thruſhes, Daws or Choughes: and to ſundry fiſhes likewiſe, as to the Tench, Pike or Pikerel, and to a certain Sea-fiſh called a Scorpion: alſo to the Trout, and ſome others, who are eaſily deceived with a Caterpillered hook. Which kind of fiſhing fraud, if you would better be inſtructed in, I muſt refer you to *Tarentinus* in his *Geoponicks*, and to a little Book dedicated to *Robert Dudley*, late Earl of *Leiceſter*, written by Maſter *Samuel Vicar* of *Godmancheſter* in *Huntingtonſhire*.

It is not to be paſſed over in ſilence, how that not many years ſince, there came infinite ſwarms of Caterpillers out of *Thracia* into *Polonia*, *Hungaria*, and beyond the limits of *Germany*, which did not only devour the fruits of trees, but whatſoever was green either in the medows and tilled fields, beſides the Vines: which was taken for an evident prognoſtick and ſign (as many divined) of ſome great *Turkiſh* Army to come ſwarming into thoſe parts: neither herein did this their gheſſing and miſtruſt deceive them, for the next year following was the ſiedge of *Vienna* in *Auſtria*, the waſting, ſpoyling and over-running of *Hungaria*; and the deadly Engliſh-ſweating could not contain it ſelf in an Iſland, but muſt ſpread it ſelf among them of the Continent, whereupon enſued the deſtruction of many thouſands of people, before any remedy could be found out. In the year of grace 1573. there ruſhed infinite ſwarms of Caterpillers into *Italy*, where they ſpoyled and made havock of all green buds and graſſe growing upon the face of the earth, ſo that with their unquenchable and inſatiate voracity, they left nothing but the bare roots of trees and plants: and this hapned chiefly about *Mantua* and *Brixia*. And upon the neck of this, followed a terrible and fearful peſtilence, of which there dyed about 50. thouſand perſons.

Alſo in the year of our Lord GOD 1570. there were two great and ſudden ſwarms of Caterpillers that came ruſhing into *Italy* in the ſpace of one Summer, which put the *Romans* into an exceeding great fear, for there was nothing left green in all their fields that could be preſerved from their ravine, and from their gluttonous and pilling maw. And although the fertility of the year immediately following, did almoſt blot and raſe out the memory of this their heavy puniſhment, and that many ſeemed as it were to repent them of their repentance; yet are we not to doubt, but that many were truly penitent, and ſeriouſly were drawn to amendment of life by a due conſideration hereof. God grant that we may be warned by other mens puniſhments, leſt that poor creature, which we imagine to be the ſillieſt and leaſt able to do us harm, we finde the moſt heavy.

Of the BOAS.

IT was well known among all the *Romans*, that when *Regulus* was Governor or General in the *Punick* wars, there was a Serpent (neer the River *Bagrade*) killed with ſlings and and ſtones, even as a Town or little City is overcome, which Serpent was an hundred and twenty foot in length: whoſe skin and cheek bones were reſerved in a Temple at *Rome*, until the *Numantine* war.

And this Hiſtory is more eaſie to be believed becauſe of the Boas Serpent bred in *Italy* at this day: for we read in *Solinus*, that when *Claudius* was Emperor, there was one of them ſlain in the *Vatican* at *Rome*, in whoſe belly was found an Infant ſwallowed whole, and not a bone thereof broken. The *Germans* call this Serpent *Uncke*, and beſides them I do not read of any other Name. Some have ignorantly confounded it with *Cherſydrus*, an Adder of the earth, but upon what reaſon I do not know, only *Solinus* diſcourſing of *Calabria*, might give ſome colour to this opinion, when he ſaith, *Calabria Cherſydris eſt frequentiſſima, & boam gignit quem Anguem ad immenſam molem ferunt coaleſcere*: that is to ſay, *Calabria* is full of Earth-adders, and it breedeth the Boas, which Snake ſome affirm will grow into a monſtrous ſtature. Out of which words, there is no wiſe man can collect, that the Boas and the Adder of the earth are all one thing.

The *Latines* call it *Boa* and *Bova* of *Bos*, becauſe by ſucking Cows milk it ſo encreaſeth, that in the end it deſtroyeth all manner of herds, Cattel and Regions. And our domeſtical Snakes and Adders, will alſo ſuck milk from Kine, as in all the Nations of the world is moſt manifeſt to them that will obſerve the ſame.

The *Italians* do uſually call them, *Serpeda de Aqua*, a Serpent of the water, and therefore all the Learned expound the *Greek* word *Hydra* for a Boas. *Cardan* ſaith, that there are of this kinde in the Kingdom of *Senega*, both without feet and wings, but moſt properly they are now found in *Italy*, according to theſe verſes;

Boa quidem Serpens quem tellus Itala nutrit
Hunc bubulum plures lac enutrire docent.

Which may be Engliſhed thus;

The Boas Serpent which Italy doth breed,
Men ſay, upon the Milk of Cows doth feed.

Their faſhion is in ſeeking for their prey among the heards, to deſtroy nothing that giveth ſuck ſo long as it will live, but they reſerve it alive until the milk be dryed up, then afterward they kill and

eat

and eat it, and ſo they deal with whole flocks and herds. The poyſon of it, ſaith *Feſtus*, maketh tumor and ſwelling in the body, whereunto all other agree, except *Albertus*, who in this point agrees not with himſelf, for in one place he ſaith, that they are venomous, and their teeth alſo like other Dragons, in another place he ſaith, their poyſon is very weak, and not to be regarded, becauſe they be Dragons of the third order or diviſion. They go all upon their belly, and ſo I will conclude their ſtory with *Mantuan*.

Turpi Boa flexilis alvo.
That is to ſay;
The filthy Boas on his belly moves.

Of the CHAMÆLEON.

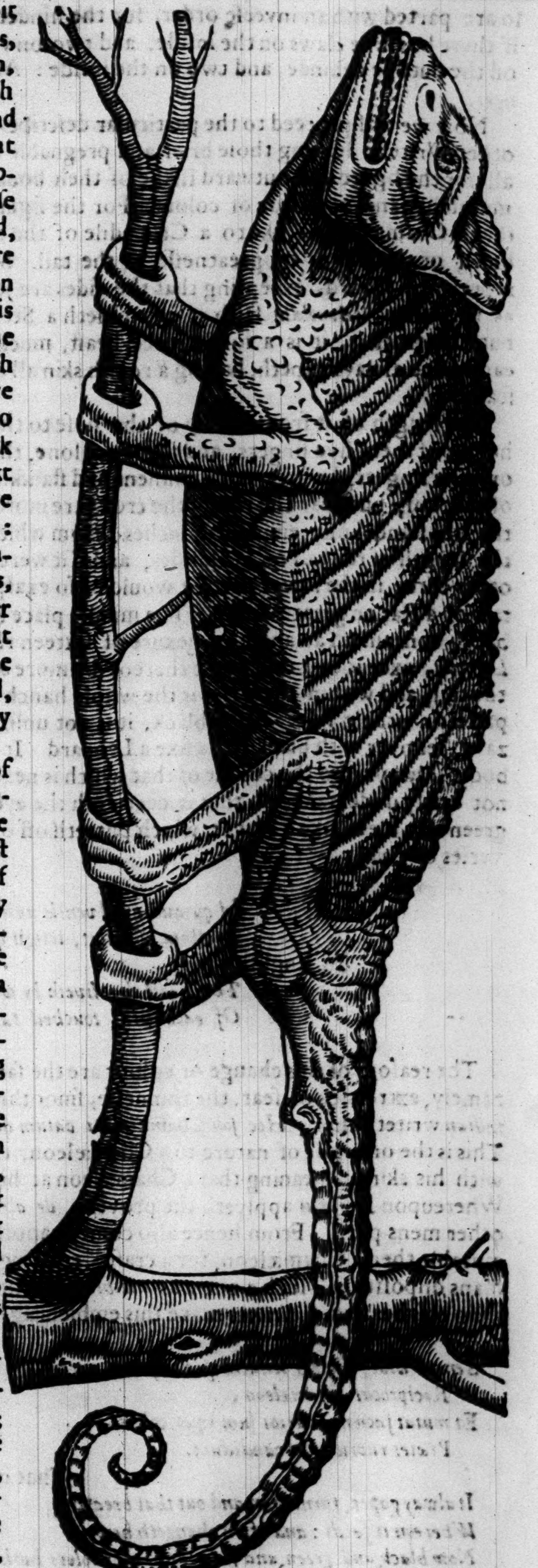
IT is very doubtful whether a Chamæleon were ever known to the ancient *Hebrews*, becauſe there is no certainty among them for the appellation thereof, ſome affirming one thing, and ſome another. We read Levit. 11. among other beaſts there forbidden to be eaten of, *Koab*, or *Koach*, which *Rabbi Kimhi* interpreteth a kinde of Crocodile, (*Hazab*,) *Rabbi Jonas* in the *Arabian*, *Hardun*, and ſo alſo doth *Avicen*. The *Chaldee*, *Koaba*; the *Perſians*, *An Sanga*; the *Septuagints* and *S. Jerom*, a Chamæleon. The ſelf ſame word is found Levit. 14. which the *Jews* do vulgarly at this day take for *Senicus*, a Crocodile of the earth. The word *Oah* or *Oach*, ſeemeth to come neer to this, which is ſometimes interpreted a Tortoyſe, a Dragon, or a Monkey. And *Oas* by *Sylvaticus*, is tranſlated a Salamander. *Kaath* by the *Jews*, is tranſlated a Cuckow, a Jay, a Pelican and an *Onocratua*: and in the ſecond of *Sophoni* for a Chamæleon. Some have framed an *Hebrew* word *Gamalion*, which is abſurd, for *Gamelcon*. *Zamelon*, *Aamelon*, *Hamalcon*, and *Meleon*, are but corrupted terms of Chamæleon, as *Iſidorus* well obſerveth, or elſe ſignifieth ſome of the kindes of Lizards or Stellions, as is manifeſt in *Albertus*, and other learned Writers. Therefore I will not blot more paper about the *Arabian* beaſts, *Harbe* and *Albarbe*, *Alarbian* or *Hardon*, *Hardun*, or *Albarba*, but leave them to the judgement of thoſe, who delight in the inveſtigation of ſuch ſecrets.

Chamæleon is a *Greek* word, from whence the *Latines*, and almoſt all Nations have borrowed the name of this Serpentine or creeping beaſt, except the *Germans*, and they only have fained names, as *Lindtwarm* in *Albertus*, that is, a Worm of the Wood, and *Rattader* by *Geſner*, that is, a Ratmouſe, becauſe in quantity and compoſition it reſembleth both thoſe creatures. Some *Latines* by reaſon of the ſimilitude it holdeth with a Lizard, call it *Muri Laccritus*, a Mouſe Lizard. The *Greek* word *Chamæleon*, ſignifieth a low and humble Lion, becauſe in ſome parts and members, he reſembleth that lofty and couragious beaſt. So do they derive the name of certain low and ſhort herbs from great and tall trees, as *Chamacypariſſus*, *Chamædris*, and *Chamæpitys*, ſhrubs of Plumtree, Heath, Cypres, Germander, and ground Ivy, from the Cherry, the Cypres, the Cedar, and the Pine tree. And thus much for the name of the *Chamæleon*.

The Countries breeding Chamæleons, are *Africa*, *Aſia*, and *India*, and for the quantity thereof I do finde divers deſcriptions, ſome particular, as in *Bellonius*, and *Scaliger*, and ſome general in other Writers, all which I purpoſe briefly and ſucceſſively to expreſſe in this place. It is ſaid (ſaith *Bellonius*) that the Frog and the Chamæleon are like one to the other, becauſe they uſe the ſame Art and induſtry in taking their meat: and to the intent that this thing may more evidently appear, both by the deſcription and the picture, I have thought good to entreat of the Chamæleon, amongſt the Water-beaſts, becauſe it liveth for the moſt part in moiſt, marſhy, and Fenny places. I have ſeen of them two kindes, one, a leſſer kinde in *Arabia*, being of a whitiſh colour, all ſet over with yellowiſh or reddiſh ſpots, and in quantity not exceeding the green Lizard. The other, in the hot places of *Egypt*, being twice as big in quantity as the *Arabian*, and of a changeable colour, betwixt white, green, brown aud yellow, for which occaſion ſome have called it *verſicolor Chamæleon*, that is, a turn-coat-coloured Chamæleon. But both theſe kindes of Chamæleons have a copped head, like to a Camel, and two bones at the top of their brows ſtanding up on either ſide, and hanging out: their eyes are moſt clear and bright, about the bigneſſe of a peaſe, only covered with a skin, ſo that their appearance outward, exceedeth not the quantity of a Millet-ſeed. They are very flexible, turning upwards and downwards, and are able at one time to look two ſeveral ways, diſtinctly upon two ſeveral objects, wherein they exceed all other beaſts. It is a heavy and dull beaſt, like the Salamander, neither can it run, but like a Lizard, wherefore it is not afraid of the ſight of men, neither doth it run from their preſence, neither is it eaſily provoked to harm or bite a man: it climbeth little trees for fear of Vipers and horned Serpents.

Some have thought that it never eateth meat, but is nouriſhed with the winde, becauſe it draweth in very eagerly many times the winde into the belly, whereby it ſwelleth; for it hath great lights ſtretched all along the ſides of the belly: but this opinion is falſe, as ſhall be ſhewed hereafter, although it cannot be denyed that it is *Oviparum patientiſſimum famis*: that is, The moſt induring famin among all other Egge-breeding-beaſts, for it faſteth many times eight moneths: yea, a whole year together. In ſtead of noſtrils and ears, it hath certain paſſages in thoſe places, whereby it ſmelleth and heareth.

The opening of the mouth is very large, and it hath teeth on the neather and upper chap like ſaws, ſuch as are in a Slo-worm, the tongue very ſmooth, half a hand breadth long, where withal it licketh in thoſe inſect Flyes, Horſe-flies, Locuſts, and Emets whereupon it feedeth: For it keepeth at the mouth a certain fome or moiſture, and alſo upon the tail or backer parts, wherewithal thoſe Flyes and other Creatures are ſo much delighted, that they follow the Chamæleon, and as it were bewitched with the deſire thereof, they fall upon the moiſture to their own perdition; and this is to be noted, that this moiſture or fome in the backer parts of the belly is like a Spunge. It hath a line or ſtrake under the belly, indented as it were with ſcales, white in colour, and ſtretched out to the tail; but the feet ſeem to be of an artificial work of Nature, wherein is a curious difference betwixt the former and the hinder: for the ſorefeet have three fingers or claws within, and two without: the hinder-feet on the contrary, have two without and three within. It layeth twelve long Egges, ſuch as Lyzards do; the heart is not much greater then the heart of a domeſtical Mouſe or Rat: it hath two laps of a Liver, whereof the left is the greater, unto which cleaveth the skin of the gall, the which skin exceedeth not in quantity a Barley corn. *And thus ſar the deſcription by* ***Bellonius.***



In *the next place* for the better manifeſtation of the nature of this beaſt, I will alſo adde the deſcription that *Scaliger* maketh thereof. For he ſaith, that when *Johannes Landius* was in the fartheſt parts of *Syria*, he ſaw five Chamæleons, whereof he bought one, which with his tongue did very ſuddenly take off a Fly from his breaſt: Whereſore in the diſſection of the ſaid Chamæleon, he found that the tongue thereof was as long as a hand breadth, hollow and empty, in the top whereof there was a little hole with filthy matter therein, wherewithal he took his prey: which thing ſeemed new and ſtrange unto them which heretofore thought that a Chamæleon lived only by the air. His back was ſomewhat crooked, riſing with ſpotted bunches like a Saw, like the Turbut fiſh, his belly cloſed with ſhort ribs, his eyes moſt beautiful, which he turneth every way without bending his neck: his colour white, green, and dusky: naturally green, ſomewhat pale on the back, but paler and neerer to white on the belly, yet was it beſet all over with red, blew, and white ſpots.

It is not true that the Chamæleon changeth her ſelf into all colours, upon green groweth greenneſſe, upon the dusky is tempered a dusky colour; but upon blew, red, or white, the native greenneſſe is not blemiſhed or obſcured, but the blew, white, and red ſpots yeeld a more lively and pleaſant aſpect; upon black, ſtandeth brown, yet ſo as the green hew ſeemeth to be confounded with black, and it doth not change his own colour into a ſuppoſed colour, but when it is oppreſſed with fear or grief. That it liveth ſometime of the air, a whole year or more, doth appear, becauſe it eateth no meat during that time, but gaping with a wide mouth draweth in the air, and then ſhutting his chaps again his belly ſwelleth. Yea, I found one that conſtantly affirmed, that they turn themſelves to the beams of the Sun, and gaping wide after them, follow them hard as it were to draw them in. They have five diſtinct claws upon every foot, with two of which they claſp the round boughs or twigs of trees, as Parrats do when they ſit upon their pearches, and theſe claws ſtand not as other Birds do, three together and one by it ſelf, but in imparity or diſſimilitude, three on the one ſide, and two on the other, and ſo are parted with an inverſe order, for the hinder and former are contrary one to the other, ſo as if there be three claws on the inſide, and two on the outſide of the leg before, then are there three on the outſide behinde, and two on the inſide: And thus much I received from *Langius*. So far *Scaliger*.

Now we will proceed to the particular deſcription of their parts, as we finde them recorded in other Writers, leaving thoſe brief and pregnable Narrations of *Bellonius* and *Scaliger*. And firſt of all for the figure and outward ſhape of their bodies, then for their colour, and the reaſons of their mutability and variation of colour. For the figure and ſhape of their bodies, *Pliny* is of opinion, that a Chamæleon is like to a Crocodile of the earth, except in the ſharp bending of the back-bone, or the length or greatneſſe of the tail. Some ſay that the whole parts of the body doth repreſent a Lizard, excepting that the ſides are joyned to the belly, and the back-bone ſtandeth up as in Fiſhes. *Arnoldus* ſaith it reſembleth a Stellion if the legs were not ſtraighter and higher: but the truth is, it is a four-footed-beaſt, much like to a Lizard, yet it goeth higher from the earth, and always gapeth, having a rough skin all over the body like a Crocodile, and is alſo full of ſcabs.

Ariſtotle.
Solinus.

The length of it from the tip of the noſe to the rump of the tail is ſeven or eight fingers; the height of them five fingers, and the legs alone, three fingers and a half. The length of the tail eight or nine fingers, the back-bone eminent and ſtanding up, creſted or indented all throughout to the tip of the tail, but near the rump, the creſts are more low and leſſe viſible. On either ſide at the root of the ribs ſtand bony eminent bunches, from which deſcendeth a line, and is extended throughout the length of the tail on both ſides, and if it were not for theſe bunches the turnings about, and the other three in the lower part, it would be ſo exaſperated or extenuated toward the end like to the tail of a Rat or great Mouſe. The middle place betwixt the bottom of the belly and the top of the back, containeth an angle or flexure of ſixteen ribs, after the faſhion or proportion of a *Greek Lambda*, except that the angle thereof be more wide and patent, which looketh backward toward the tail, and within theſe ribs is the whole hanch of the body and belly, contained in a round compaſſe on eitheir ſide. Being black, it is not unlike the Crocodile, and being pale, it like to the Lizard, ſet over with black ſpots like a Leopard. It changeth colour both in the eyes, tail, and whole body, always into the colour of that which is next it, except red and white, which colours it cannot eaſily undertake, ſo that it deceiveth the eyes of the beholders, turning black into green, and green into blew, like a Player, which putteth off one perſon, to put on another: according to theſe verſes of *Ovid*;

Id quoque quod ventis animal nutritur & aura,
Protinus aſſimilat, tetigit quoſcunq; colores.

In Engliſh thus;

The Beaſt that liveth by winde and weather,
Of each thing touched taketh colour.

The reaſons of this change or colour are the ſame which are given of the Buffe and *Polypus* Fiſh; namely, extremity of fear, the thinneſſe, ſmoothneſſe, and baldneſſe of the skin. Whereupon *Tertullian* writeth thus; *Hoc ſoli Chamaleonti datum quod vulgo dictum eſt de ſuo corio ludere*: That is to ſay, This is the only gift of nature to a Chamæleon, that according to the common Proverb it deceiveth with his skin: meaning that a Chamæleon at his own pleaſure can change the colour of his skin. Whereupon *Eraſmus* applyeth the proverb, *de alieno corio ludere*, to ſuch as ſecure themſelves with other mens peril. From hence alſo cometh another proverb, *Chamaileontos rumei abolomatos*, more mutable then a Chamæleon, for a crafty, cunning, inconſtant fellow, changing himſelf into every mans diſpoſition; ſuch a one was *Alcibiades*, who was ſaid to be in *Athens*, and of ſuch a man reſembling this beaſt, did *Alciatus* make this emblem againſt flatterers:

Semper hiat, ſemper tenuem qua veſcitur auram,
Reciprocat Chamæleon,
Et mutat faciem, varios ſumitque colores,
Præter rubrum vel candidum.

Sic & adulator populari veſcitur aura,
Hianſque cuncta devorat.
Et ſolum mores imitatur principis atros,
Albi & pudici neſcius.

That is to ſay;

It alway gapes, turning in and out that breath
Whereon it feeds: and often changeth hew:
Now black and green, and pale, and other colors hath,
But red and white Chamæleons do eſchew:

So Clawbacks feed on vulgar breath as bread,
With open mouth devouring fame and right,
Princes black-vices praiſe, but vertues dread,
Deſigned in nature by colours red and white.

A Chamæleon of all Egge-breeding Beaſts is the thinneſt, becauſe it lacketh bloud, and the reaſon hereof is by *Ariſtotle* referred to the diſpoſition of the ſoul: For he ſaith, through overmuch fear, it taketh upon it many colours, and fear through the want of bloud and heat is a refrigeration of this Beaſt.

Plutarch alſo calleth this Beaſt a meticulous and fearful beaſt, and in this cauſe concludeth the change of his colour, not as ſome ſay, to avoid and deceive the beholders and to work out his own happineſſe, but for meer dread and terrour. *Johannes Urſinus* aſſigneth the cauſe of the change of Chamæleons colour, not to fear, but to the meat and to the air, as appeareth by theſe verſes;

Non timor, imò cibus, nimirum limpidus aër,
Ambo ſimul vario membra colore novant:

Which may be thus Engliſhed;

Not fear, but meat which is the air thin,
New colours on his body doth begin.

But I for my part do aſſign the true cauſe to be in the thinneſſe of their skin, and therefore may eaſily take impreſſion of any colour, like to a thin fleak of a horn, which being laid over black, ſeemeth black, and ſo over other colours: and beſides, there being no hinderance of bloud in this Beaſt, nor Intrails, except the lights, the other humors may have the more predominant mutation, and ſo I will conclude the diſcourſe of the parts and colour of a Chamæleon, with the opinion of *Kiranides*, not that I approve it, but to let the Reader know all that is written of this Subject, his words are theſe; *Chamælem ſingulis horis diei mutat colorem*, A Chamæleon changeth his colour every hour of a day.

This Beaſt hath the face like a Lyon, the feet and tail of a Crocodile, having a variable color, as you have heard, and one ſtrange continued nerve from the head to the tail, being altogether without fleſh, except in the head, cheeks, and uppermoſt part of the tail, which is joyned to the body; neither hath it any bloud but in the heart, eys, and in a place above the heart, and in certain veins derived from that place, and in them alſo but a very little bloud.

Ariſtotle.
Pliny.

There be many membranes all over their bodies, and thoſe ſtronger then in any other Beaſts. From the middle of the head backward, there ariſeth a three ſquare bone, and the fore part is hollow and round like a pipe, certain bony brims, ſharp and indented, ſtanding upon either ſide. Their brain is ſo little above their eyes, that it almoſt toucheth them, and the upper skin being pulled off from their eyes, there appeareth a certain round thing like a bright ring of Braſſe, which *Niphus* calleth *Paila*, which ſignifieth that part of a Ring, wherein is ſet a precious ſtone.

Solinus.

The eyes in the hollow within are very great, and much greater then the proportion of the body, round and covered over with ſuch a skin as the whole body is, except the apple, which is bare, and that part is never covered. This apple ſtands immoveable, not turned, but when the whole eye is turned at the pleaſure of the Beaſt. The ſnout is like to the ſnout of a Hog-ape, always gaping, and never ſhutting his mouth, and ſerving him for no other uſe but to bear his tongue and his teeth; his gums are adorned with teeth as we have ſaid before, the upper lip being ſhorter and more turned in then the other. Their throat and artery are placed as in a *Lizard*: their lights are exceeding great, and they have nothing elſe within their body. Whereupon *Theophraſtus* as *Plutarch* witneſſeth, conceiveth, that they fill the whole body within, and for this cauſe it is more apt to live on the air, and alſo to change the colour.

Ariſtotle.

It hath no Spleen or Milt, the tail is very long, at the end and turning up like a Vipers tail, winded together in many circles. The feet are double cloven, and for proportion reſemble the thumb and hand of a man, yet ſo, as if one of the fingers were ſet neer the ſide of the thumb, having three without and two within behinde, and three within, and two without before; the palm betwixt the fingers is ſomewhat great: from within the hinder-legs, there ſeem to grow certain ſpurs. Their legs are ſtraight, and longer then a Lizards, yet is their bending alike, and their nails are crooked and very ſharp. One of theſe being diſſected and cut aſunder, yet breatheth a long time after, they goe into the caves and holes of the earth like Lizards, wherein they lie all the Winter time, and come forth again in the Spring, their pace is very ſlow, and themſelves very gentle, never exaſperated but when they are about wilde Fig-trees.

They have for their enemies the Serpent, the Crow and the Hawk. When the hungry Serpent doth aſſault them, they defend themſelves in this manner, as *Alexander Mindius* writeth; they take in their mouths a broad and ſtrong ſtalk, under protection whereof as under a buckler, they defend themſelves againſt their enemy the Serpent, by reaſon that the ſtalk is broader then the Serpent can gripe in his mouth, and the other parts of the Chamæleon ſo firm and hard, as the Serpent cannot hurt them: he laboureth but in vain to get a prey, ſo long as the ſtalk is in the Chamæleons mouth. But if the Chamæleon at any time ſee a Serpent taking the air, and ſunning himſelf under ſome green tree, he climbeth up into that tree, and ſetleth himſelf directly over the Serpent, then out of his mouth he caſteth a thread like a Spider, at the end whereof hangeth a drop of poyſon as bright as any pearl, by this ſtring he letteth down the poyſon upon the Serpent, which lighting upon it, killeth it immediately. And *Scaliger* reporteth a greater wonder then this in the deſcription of the Chamæleon, for he ſaith, if the boughs of the tree ſo grow as the perpendicular line cannot fall directly upon the Serpent, then he ſo correcteth and guideth it with his fore-feet, that it falleth upon the Serpent within the mark of a hairs breadth.

The Raven and the Crow are alſo at variance with the Chamæleon, and ſo great is the adverſe nature betwixt theſe twain, that if the Crow eat of the Chamæleon being ſlain by him, he dyeth for it, except he recovereth his life by a Bay-leaf, even as the Elephant after he hath devoured a Chamæleon, ſaveth his life by eating of the Wilde-olive-tree. But the greateſt wonder of all is, the hoſtility which *Pliny* reporteth to be betwixt the Chamæleon and the Hawk. For he writeth, that when a Hawk flyeth over a Chamæleon, ſhe hath no power to reſiſt the Chamæleon, but falleth down before it, yeelding both her life and limbs to be devoured by it; and thus that devourer that liveth upon the prey and bloud of others, hath no power to ſave her own life from this little Beaſt.

A Chamæleon is a fraudulent, ravening and gluttonous Beaſt, impure, and unclean by the law of GOD, and forbidden to be eaten: in his own nature wilde, yet counterfeiting meekneſſe, when he is in the cuſtody of man. And this ſhall ſuffice to have ſpoken for the deſcription of this Beaſt, a word or two of the Medicines ariſing out of it, and ſo a concluſion.

I finde that the Ancients have obſerved two kindes of Medicines in this Beaſt, one magical, and the other natural, and for my own part, although not able to judge of either, yet I have thought good to annex a relation of both to this Hiſtory. And firſt of the natural medicines, *Democritus* is of opinion that they deſerve a peculiar Volume, and yet he himſelf telleth nothing of them worthy of one page, except the lying vanities of the *Gentiles*, and ſuperſtitions of the *Grecians*. With the gall, if the ſuffuſions and leprous parts of the body be anointed three days together; and the *Marcellus.* whiteneſſe of the eyes, it is believed to give a preſent remedy: and *Archigenes* preſcribeth the ſame for a medicine for the taking away of the unprofitable and pricking hairs of the eye-brows. It is thought if it be mixed with ſome ſweet compoſition that it hath power to cure a quotidian Ague. If the tongue of a Chamæleon be hung over an oblivious and forgetful perſon, it is thought to have power to reſtore his memory.

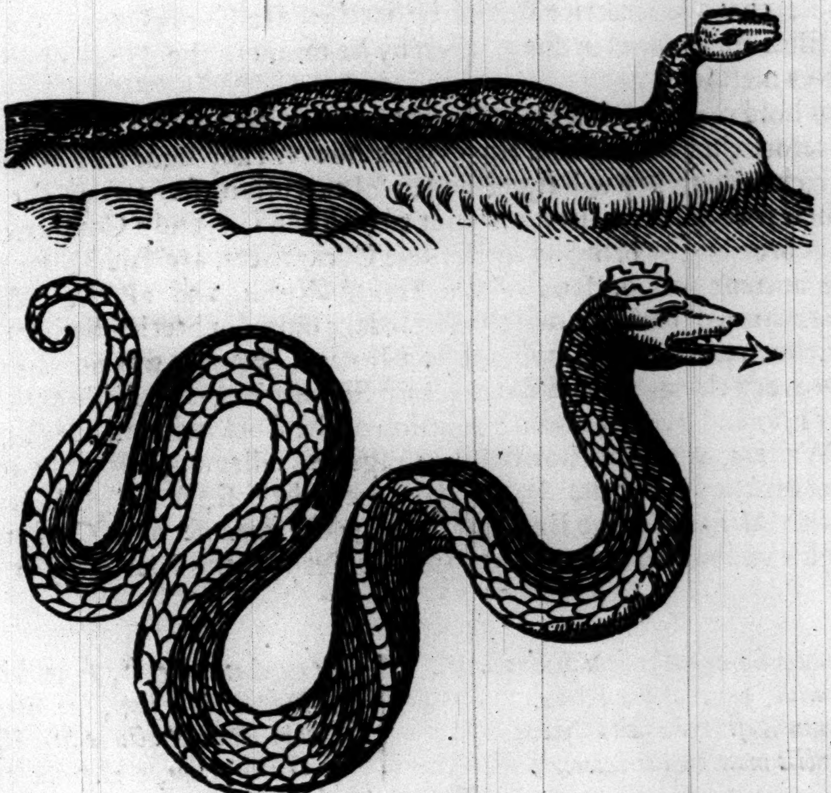
Rhazes. The Chamæleon from the head to the tail, hath but one Nerve, which being taken out and hung about the neck of him that holdeth his head awry, or backward, it cureth him. The other parts *Kiranides.* have the ſame operation as the parts of the Hyæna and the Sea-calf. If a Chamæleon be ſod in an earthen pot, and conſumed till the water be as thick as Oyl, then after ſuch ſeething take the bones out, and put them in a place where the Sun never cometh, then, if you ſee a man in the fit of the Falling-ſickneſſe, turn him upon his belly, and anoint his back from the *Os ſacrum* to the ridge-bone, and it will preſently deliver him from the fit: but after ſeven times uſing, it will perfectly cure *Trallianus.* him. The Oyl thus made muſt be kept in a Box. This medicine following is a preſent remedy againſt the Gowt. Take the head and feet of a Chamæleon, cut off alſo the outward parts of the knees and feet, and then keep by themſelves thoſe parts: that is to ſay, the parts of the right leg by themſelves, and the parts of the left leg by themſelves, then touch the Nail of the Chamæleon with your thumb and right finger of your hand, dipping the tips of your fingers of the right hand in the bloud of the right foot of the Beaſt: and ſo likewiſe the fingers of the left hand in the bloud of the left foot, then include thoſe parts in two little pipes, and ſo let the ſick perſon carry the right parts in the right hand, and the left parts in the left hand, until he be cured: and this muſt be remembred, that he muſt touch every morning about the Sun-riſing the ſaid Chamæleon, yet living and lapped in a linnen cloth, with thoſe parts that are oppreſſed with the Gout.

The like ſuperſtitious and Magical deviſes are theſe that follow, as they are recorded by *Pliny* and *Democritus*. The head and throat being ſet on fire with wood of Oak, they believe to be good againſt Thunder and Rain, and ſo alſo the liver burned on a Tyle. If the right eye be taken out of it alive, and applyed to the whiteneſſe of the eyes in Goats milk, it is thought to cure the ſame. The tongue bound to a woman with child, preſerveth her from danger in childe-birth, if the ſame tongue be taken from the Beaſt alive, it is thought it fore-ſheweth the event of judgement. The Heart wrapped in black Wooll of the firſt ſhearing, by wearing it cureth a quartane Ague; the right claw of the fore-feet bound to the left arm with the skin of his cheeks, is good againſt robberies and terrors of the night, and the right pap againſt all fears. If the left foot be ſcorched in a furnace with the herb Chamæleon, and afterward putting a little Ointment to it, and made into little Paſties, ſo being carryed about in a wooden box, it maketh the party to go inviſible. The right ſhoulder maketh a man to prevail againſt his adverſaries, if they do but tread upon the nerves caſt down upon the earth. But the left ſhoulder they conſecrate the ſame to monſtrous dreams, as if that thereby a man might dream what he would in his own perſon and effect, the like in others.

With the right foot are all Palſies reſolved, and with the left foot all Lethargies: the Wine wherein one ſide of a Chamæleon hath been ſteeped, ſprinkled upon the head, cureth the ach thereof. If Swines Greaſe be mingled with the powder of the left foot or thigh, and a mans foot be anointed therewith, it bringeth the Gout, by putting the gall into fire, they drive away Serpents; and into Water, they draw together Weaſels, it pulleth off hair from the body, ſo alſo doth the Liver, with the lights of a Toad; likewiſe the Liver diſſolveth amorous Inchantments. Melancholy men are cured by drinking the juyce of a Chamæleon out of a Chamæleons skin. They alſo ſay, that the Intrails and dung of this Beaſt waſhed in the urine of an Ape, and hung up at our enemies gates, cauſeth reconciliation.

With the tail they bring Serpents aſleep, and ſtay the flowing of the flouds and waters: the ſame mingled with Cedar and Myrrhe, bound to two rods of Palm, and ſtruck upon water, cauſeth all things that are contained in the ſame water to appear; but I would to GOD that ſuch Magicians were well beaten with Rods of ſtronger wood, until they forſook theſe magical fooleries: And thus much for the ſtory of the Chamæleon.

Of the COCKATRICE.



THis Beaſt is called by the *Grecians*, *Baſiliſcos*, and the *Latines Regulus*, becauſe he ſeemeth to be the King of Serpents, not for his magnitude or greatneſſe. For there are many Serpents bigger then he, as there be many four-footed Beaſts bigger then the Lyon, but becauſe of his ſtately pace, and magnanimous minde; for he creepeth not on the earth like other Serpents, but goeth half upright, for which occaſion all other Serpents avoid his ſight. And it ſeemeth nature hath ordained him for that purpoſe: for beſide the ſtrength of his poyſon which is uncurable, he hath a certain combe or Coronet upon his head, as ſhall be ſhewed in due place. It is alſo call'd *Sibilus*, as we read in *Iſidorus*, *Sibilus enim occidit antequam mordeat vel exurat*: The Cockatrice killeth before it burneth. The *Hebrews* call it *Petben*, and *Curman*, alſo *Zaphna*, and *Zaphnaini*. The *Chalde*; *Hamene*, and alſo *Carmene*: The *Ægyptian*, *Urem*; the *Germans*, *Ein Ertz Schlengle*; the *French*, *Un Baſilic*; the *Spaniards* and *Italians*, *Baſiliſco*.

Pliny.
Solinus.

There is ſome queſtion amongſt Writers, about the generation of this Serpent: for ſome (and thoſe very many and learned) affirm him to be brought forth of a Cocks Egge. For they ſay that when a Cock groweth old, he layeth a certain Egge without any ſhell, in ſtead whereof it is covered with a very thick skin, which is able to withſtand the greateſt force of an eaſie blow or fall. They ſay moreover, that this Egge is laid only in the Summer time, about the beginning of Dog-days, being not long as a Hens Egge, but round and orbicular: Sometimes of a duſty, ſometimes of a boxy, ſometimes of a yellowiſh muddy colour, which Egge is generated of the putrefied ſeed of the Cock, and afterward ſet upon by a Snake or a Toad, bringeth forth the Cockatrice, being half a foot in length, the hinder-part like a Snake, the former part like a Cock, becauſe of a treble combe on his fore-head.

But the vulgar opinion of *Europe* is, that the Egge is nouriſhed by a Toad, and not by a Snake; howbeit in better experience it is found that the Cock doth ſit on that Egge himſelf: whereof *Levinus Lemnius* in his twelfth Book of the hidden miracles of nature hath this diſcourſe, in the fourth Chapter thereof. There happened (ſaith he) within our memory in the City of *Pirizaea*, that there were two old Cocks which had laid Egges, and the common people (becauſe of opinion that thoſe Egges would engender Cockatrices) laboured by all means poſſible to keep the ſaid Cocks from ſitting on thoſe Egges, but they could not with clubs and ſtaves drive them from the Egges, until they forced to break the Egges in ſunder, and ſtrangle the Cocks. But this point is worth inquiry, whether a Cock can conceive an Egge, and after a certain time lay the ſame without a ſhell. I for my part am perſwaded, that when a Cock groweth old, and ceaſeth to tread his female in the ordinary courſe of nature, which is in the ſeventh or ninth year of his age, or at the moſt in the fourteenth, there is a certain concretion bred within him by the putrefied heat of his body, through the ſtaying of his ſeed generative, which hardeneth unto an Egge, and is covered with ſuch a ſhell, as is ſaid already: the which Egge being nouriſhed by the Cock or ſome other beaſt, bringeth forth a venomous Worm, ſuch as are bred in the bodies of men, or as Waſps, Horſe-flies, and Caterpillers engendered of Horſe-dung, or other putrefied humors of the earth:

and ſo out of this Egge may ſuch a venomous Worm proceed, as in proportion of body, and peſtiferous breath, may reſemble the *African* Cockatrice or Baſilisk, and yet it is not the ſame whereof we purpoſe here to intreat, but will acknowledge that to be one kinde of Cockatrice, but this kinde is generated like other Serpents of the earth, for as the ancient *Hermes* writeth, it is both falſe and impoſſible, that a Cockatrice ſhould be hatched of a Cocks Egge. The ſame writer maketh mention of a Baſilisk ingendered in dung, whereby he meaneth the *Elixir* of life, wherewithal the Alchymiſts convert metals.

The *Ægyptians* hold opinion, that theſe Cockatrices are ingendered of the Egges of the Bird called *Ibis*, and therefore they break thoſe Egges whereſoever they finde them: and for this cauſe in their Hieroglyphicks, when they will ſignifie a lawful execution after an upright judgment, and ſound inſtitution of their fore-fathers, they are wont to make an *Ibis*, and a Cockatrice.

Pliny.
Textor.
Avicenna.
Ælianus.
Solinus.

The Countries breeding or bringing forth theſe Cockatrices, are ſaid to be theſe: Firſt *Africk*, and therein the ancient ſeat or land of the *Turks*, *Nubia*, and all the Wilderneſſe of *Africa*, and the Countries *Cyrenes*. *Galen* among the Phyſitians only, doubteth whether there be a Cockatrice or no, whoſe authority in this caſe muſt not be followed, ſeeing it was never given to mortal man to ſee and know every thing, for beſides the holy Scriptures unavoidable authority, which both in the propheſie of *Eſay* and *Jeremy*, maketh mention of the Cockatrice and her Egges: there be many grave humane Writers, whoſe authority is irrefragable, affirming not only that there be Cockatrices, but alſo that they infect the air, and kill with their ſight. And *Mercurial* affirmeth, that when he was with *Maximilian* the Emperor, he ſaw the carkaſe of a Cockatrice, reſerved in his treaſury among his undoubted monuments. Of this Serpent the Poet *Georgius Pictorius* writeth on this manner;

Rex eſt Serpentum Baſiliſcus, quem modo vincunt
Muſtelæ inſultus, ſævaque bella feræ.
Lernæum vermem Baſiliſcum fæda Cyrene
Producit cunctis maximè perniciem.

Et naſci ex ovo galli, ſi credere fas eſt,
Decrepiti, in fimo, ſole nitente, docent.
Sed quoniam olfactu lædit, viſuque ferarum
Omne genus, credas nulla tenere bona.

That is to ſay;

The Baſilisk the Serpents King I finde,
Yet Weaſels him do overcome in warre,
The Cyren land him breeds of Lernaes kinde,
They to all other a deſtruction are:

And if we may believe, that through the heat of Sun,
In old Cocks Egges this beaſt is raiſed firſt,
Or beaſts by ſight or ſmell thereof are all undone,
Then is't not good, but of his kinde the worſt.

We do read that in *Rome*, in the days of Pope *Leo* the fourth, there was a Cockatrice found in a Vault of a Church or Chappel, dedicated to Saint *Lucea*, whoſe peſtiferous breath had infected the air round about, whereby great mortality followed in *Rome*: but how the ſaid Cockatrice came thither it was never known. It is moſt probable that it was created and ſent of GOD for the puniſhment of the City, which I do the more eaſily believe, becauſe *Sigonius* and *Julius Scaliger* do affirm, that the ſaid peſtiferous beaſt was killed by the prayers of the ſaid *Leo* the fourth.

I think they mean that by the authority of the ſaid Biſhop, all the people were moved to general faſting and prayer, and ſo Almighty GOD who was moved for their ſins, to ſend ſuch a plague amongſt them, was likewiſe intreated by their prayers and ſuits, not only to reverſe the plague, but with the ſame hand to kill the beaſt, wherewithal it was created: even as once in *Ægypt* by the hand of *Moſes*, he brought Graſſe-hoppers and Lice, ſo by the ſame hand he drove them away agin.

There is ſome ſmall difference amongſt the Writers, about the quantity and parts of this Serpent: which I will briefly reconcile. First *Ælianus* ſaith, that a Cockatrice is not paſt a ſpan in compaſſe, that is as much as a man can gripe in his hand. *Pliny* ſaith, that it is as big as twelve fingers. *Solinus* and *Iſidorus* affirm, that it is but half a foot long.

Avicen ſaith, that the *Arabian Harmena*, that is, the Cockatrice, is two cubits and a half long. *Nicander* ſaith, *Et tribus extenſo porrectus corpore palmis*, that is, it is in length but three palms. *Ætius* ſaith, that it is as big as three handfuls. Now for the reconciliation of all theſe. It is to be underſtood, that *Pliny* and *Ælianus* ſpeaketh of the Worm that cometh out of the Cocks Egge, in regard of the length, but not of the quantity, and ſo confound together that Worm and the Cockatrice. For it is very reaſonable, that ſeeing the magnitude and greatneſſe of the Serpent is concluded to be at the leaſt a ſpan in compaſſe, that therefore the length of it muſt needs be three or four foot at the ſhorteſt; elſe how could it be ſuch a terror to other Serpents, or how could the fore-part of it ariſe ſo eminently above the earth, if the head were not lifted at the leaſt a foot from the ground. So then we will take it for granted, that this Serpent is as big as a mans wriſt, and the length of it anſwerable to that proportion.

It is likewiſe queſtionable whether the Cockatrice have wings or no: for by reaſon of his conceived generation from a Cock, many have deſcribed him in the fore-part to have wings, and in the hinder part to have a tail like a Serpent: And the conceit of wings ſeemeth to be derived from holy Scripture, becauſe it is written Eſay 14. verſ. 29. *De radice colubri egredietur regulus & fructus ejus abſorbens volucrem*: That is to ſay, Out of the Serpents roots ſhall come a Cockatrice, and the fruit thereof ſhall be a fiery flying Serpent, as we tranſlate it in Engliſh: but *Tremellius* the beſt Interpreter, doth render the *Hebrew* in this manner: *De radice Serpentis prodit hæmorrhus & fructus illius preſter volans*: That is to ſay, word for word, Out of the root of the Serpent ſhall come the

Hæmorrhe,

Hemorrhe, and the fruit thereof a flying *Preſter*. Now we know, that the *Hæmorrhe* and the *Preſter* are two other different kindes of Serpents from the Cockatrice, and therefore theſe Interpreters being the more faithful and learned, we will rather follow the holy Scripture in their tranſlation, then the vulgar *Latine*, which is corrupted in very many places, as it is alſo Eſay the 30. verſ. 6. For *Preſter* there is again in the vulgar tranſlation the Cockatrice: and for this cauſe we have not deſcribed the Cockatrice with wings, as not finding ſufficient authority to warrant the ſame.

The eyes of the Cockatrice are red, or ſomewhat inclining to blackneſſe, the skin and carkaſe of this beaſt have been accounted precious, for we do read that the *Pergameni* did buy but certain pieces of a Cockatrice, and gave for it two pound and a half of ſilver: and becauſe there is an opinion that no Bird, Spider, or venomous beaſt, will indure the ſight of this Serpent, they did hang up the skin thereof ſtuffed, in the Temples of *Apollo* and *Diana*, in a certain thin net made of gold: and therefore it is ſaid, that never any Swallow, Spider, or other Serpent durſt come within thoſe Temples: And not only the skin or the ſight of the Cockatrice worketh this effect, but alſo the fleſh thereof, being rubbed upon the pavement, poſts or walls of any Houſe. And moreover, if Silver be rubbed over with the powder of the Cockatrices fleſh, it is likewiſe ſaid, that it giveth it a tincture like unto gold: and beſides theſe qualities, I remember not any other in the fleſh or skin of this Serpent.

Solinus.
Scaliger.

The hiſſing of the Cockatrice which is his natural voyce, is terrible to other Serpents, and therefore as ſoon as they hear the ſame, they prepare themſelves to fly away, according to theſe verſes of *Nicander*;

Illius auditos expectant nulla ſuſurros,
Quantumvis magnas ſinuent animalia ſpiras,
Quando vel in paſtum, vel opaca devia ſilvæ,
Irriguóſve locos, mediæ ſub luce diei
Excandeſcenti ſuccenſi furore feruntur,
Sed turpi converſa fuga dant terga retrorſum.

Which may be Engliſhed thus;

When as the greateſt winding Serpents hear,
(Feeding in Woods or paſture all abroad,
Although inclos'd in many ſpires, yet fear:
Or in mid-day the ſhadows near Brooks road,)
The fearful hiſſing of this angry beaſt,
They run away, as faſt as feet can lead them,
Flying his rage unto ſome other reſt,
Turning their backs whereby they do eſcape him.

We read alſo that many times in *Africa*, the Mules fall down dead for thirſt, or elſe lye dead on the ground for ſome other cauſes, unto whoſe Carkaſe innumerable troops of Serpents gather themſelves to feed thereupon: but when the Baſilisk windeth the ſaid dead body, he giveth forth his voyce: at the firſt hearing whereof, all the Serpents hide themſelves in the near adjoyning ſands, or elſe run into their holes, not daring to come forth again, until the Coackatrice have well dined and ſatisfied himſelf. At which time he giveth another ſignal by his voyce of his departure: then come they forth, but never dare meddle with the remnants of the dead beaſt, but go away to ſeek ſome other prey. And if it happen that any other peſtiferous beaſt come unto the waters to drink near the place wherein the Cockatrice is lodged, ſo ſoon as it perceiveth the preſence thereof, although it be not heard nor ſeen, yet it departeth back again, without drinking, neglecting his own nutriment, to ſave it ſelf from further danger; whereupon *Lucanus* ſaith;

Ælianus.

——————Latè ſibi ſubmovet omne
Vulgus, & in vacua regnat Baſiliſcus arena.

Which may be thus Engliſhed;

He makes the vulgar far from him to ſtand,
While Cockatrice alone raigns on the ſand.

So then it being evident that the hiſſing of a Cockatrice is terrible to all Serpents, and his breath and poyſon mortall to all manner of Beaſts: yet hath God in nature not left this vile Serpent without an enemy; for the Weaſil and the Cock are his triumphant Victors; and therefore *Pliny* ſaith well: *Huic tali monſtro quod ſæpe enectum concupivere reges videre, muſtelarum virus exitio eſt, adeò naturæ nihil placuit eſſe ſine pari*: That is to ſay, This monſter which even Kings have deſired to ſee when it was dead, yet is deſtroyed by the poyſon of Weaſils, for ſo it hath pleaſed Nature, that no Beaſt ſhould be without his match.

The people therefore when they take Weaſils, after they have found the Caves and lodging places of the Cockatrices, which are eaſily diſcerned by the upper face of the earth, which is burned with their hot poyſon, they put the Weaſil in unto her: at the ſight whereof the Cockatrice flyeth like a weakling overmatched with too ſtrong an adverſary, but the Weaſil followeth after and killeth her. Yet this is to be noted, that the Weaſil both before the fight and after the ſlaughter, armeth her ſelf by eating of Rue, or elſe ſhe would be poyſoned with the contagious air about the Cockatrice: and beſides this Weaſil, there is no other beaſt in the World which is able to ſtand in contention againſt the Cockatrice, ſaith *Lemnius*.

Again, even as a Lyon is afraid of a Cock, ſo is the Baſilisk, for he is not only afraid at his ſight, but almoſt dead when he heareth him crow, which thing is notoriouſly known throughout all *Africa*. And therefore all Travellers which go through the Deſerts, take with them a Cock for their ſafe conduct againſt the poyſon of the Baſilisk: and thus the crowing of the Cock is a terror to Lyons, and a death to Cockatrices, yet he himſelf is afraid of a Kite.

There are certain learned Writers in *Saxony*, which affirm, that there are many kindes of Serpents in their Woods; whereof one is not unlike to a Cockatrice: for they ſay it hath a very ſharp head, a yellow colour, in length not exceeding three Palms, of a great thickneſſe, his belly ſpotted and adorned with many white pricks: the back blew, and the tail crooked and turned up: but the opening of his mouth is far wider then the proportion of his body may ſeem to bear. Theſe Serpents may well be referred to Cockatrices: for howſoever their poyſon is not ſo great as the Baſilisks of *Africa*, (even as all other Serpents of the hot Countries are far more peſtiferous then thoſe which are bred in the cold Countries:) the very ſame reaſon perſwadeth me, that there is a difference among the Cockatrices, and that thoſe of *Saxonia* may differ in poyſon from thoſe in *Africa*, and yet be true Cockatrices: Beſides this, there is another reaſon in *Lemnius*, which perſwadeth the Reader there are no Cockatrices; becauſe when the Countreymen ſet upon them to kill them with Clubs, Bills, or Forks, they receive no hurt at all by them, neither is their any apparent contagion of the air: but this is anſwered already, that the poyſon in the cold Countrey is nothing ſo great as in the hot; and therefore in *Saxony* they need fear the biting, and not the airs infection.

Cardan relateth another ſtory of a certain Serpent, which was found in the walls of an old decayed Houſe in *Millan*, the head of it (ſaith he) was as big as an Egge, too big for the body, which in quantity and ſhape reſembled a Stellion. There were teeth on either chap, ſuch as are in Vipers. It had two legs, and thoſe very ſhort, but great, and their feet had claws like a Cats: ſo that when it ſtood it was like a Cock, for it had a bunch on the top of the head, and yet it wanted both feathers and wings: The tail was as long as the body, in the top thereof there was a round bunch as big as the head of an *Italian* Stellion. It is very likely that this beaſt is of the kinde of Cockatrices.

Now we are to intreat of the poyſon of this Serpent, for it is a hot and venomous poyſon, infecting the air round about, ſo as no other creature can live near him; for it killeth, not only by his hiſſing and by his ſight, (as is ſaid of the Gorgons,) but alſo by his touching, both immediately and mediately; that is to ſay; not only when a man toucheth the body it ſelf, but alſo by touching a Weapon wherewith the body was ſlain, or any other dead beaſt ſlain by it; and there is a common fame, that a Horſe-man taking a Spear in his hand, which had been thruſt through a Cockatrice, did not only draw the poyſon of it into his own body and ſo dyed, but alſo killed his Horſe thereby. *Lucan* writeth;

Quid prodeſt miſeri Baſiliſcus cuſpide Mauri
Transfactus? velox currit per tela venenum,
Invadit manum equumque.

In Engliſh thus;

What had the Moore to kill
The Cockatrice with Spear,
Sith the ſwift poyſon him did ſpill,
And Horſe that did him bear.

Ponzettus. The queſtion is in what part of this Serpent the poyſon doth lie; ſome ſay in the head alone, and that therefore the Baſilisk is deaf, becauſe the Air which ſerveth the Organ of hearing, is reſolved by the intenſive calidity: but this ſeemeth not to be true, that the poyſon ſhould be in the head only, becauſe it killeth by the fume of the whole body, and beſides when it is dead it killeth by only touching it, and the Man or Beaſt ſo ſlain, doth alſo by touching kill another: Some again ſay, that the poyſon is in the breaſt, and that therefore it breatheth at the ſides, and at many other places of the body, through and betwixt the ſcales; which is alſo true, that it doth ſo breath: for otherwiſe the burning fume that proceedeth from this poyſonful beaſt, would burn up the Intrails thereof, if it came out of the ordinary place; and therefore Almighty GOD hath ſo ordained, that it ſhould have ſpiraments and breathing places in every part of the body, to vent away the heat, leſt that in very ſhort time, by the incluſion thereof, the whole compage and juncture of the body ſhould be utterly diſſolved, and ſeparated one part from another.

But to omit inquiry in what part of his body the poyſon lyeth, ſeeing it is moſt manifeſt that it is univerſal, we will leave the ſeat thereof, and diſpute of the inſtruments and effects.

Firſt of all therefore it killeth his own kinde, by ſight, hearing, and touching. By his own kinde, I mean other Serpents, and not other Cockatrices, for they can live one beſide another, for if it were true (which I do not believe) that the *Arabian Harmene* were any other Serpent then a Cockatrice, the very ſame reaſon that *Ardoynus* giveth of the fellowſhip of theſe two Serpents together, (becauſe of the ſimilitude of their natures) may very well prove that no divers kindes can live ſo well together, in ſafety without harming one another, as do one and the ſame kinde together. And therefore there is more agreement in nature betwixt a Cockatrice and a Cockatrice, then a Cockatrice and *Harmene*, and it is more likely that a Cockatrice doth not kill a Cockatrice, then that a Cockatrice doth not kill an *Harmene*: And again, Cockatrices are engendered by Egges, according to the holy Scripture; and therefore one of them killeth not another by touching, hiſſing, or ſeeing, becauſe one of them hatcheth another. But it is a queſtion whether the Cockatrice dye by the ſight of himſelf: ſome have affirmed ſo much, but I dare not ſubſcribe thereunto, becauſe in reaſon it is unpoſſible that any thing ſhould hurt it ſelf, that hurteth not another of his own kinde, yet if in the ſecret of nature GOD have ordained ſuch a thing, I will not ſtrive againſt them that can ſhew it.

And therefore I cannot without laughing, remember the old Wives tales of the Vulgar Cockatrices that have been in *England*; for I have oftentimes heard it related confidently, that once our Nation was full of Cockatrices, and that a certain man did deſtroy them by going up and down in Glaſſe, whereby their own ſhapes were reflected upon their own faces, and ſo they dyed. But this fable is not worth refuting, for it is more likely that the man ſhould firſt have dyed by the corruption of the air from the Cockatrices, then the Cockatrices to die by the reflection of his own ſimilitude from the glaſſe, except it can be ſhewed that the poyſoned air could not enter into the glaſſe wherein the man did breath.

Among all living creatures, there is none that periſheth ſooner then doth a man by the poyſon of a Cockatrice, for with his ſight he killeth him, becauſe the beams of the Cockatrices eyes, do corrupt the viſible ſpirit of a man, which viſible ſpirit corrupted, all the other ſpirits coming from the brain and life of the heart, are thereby corrupted, and ſo the man dyeth: even as women in their monthly courſes do vitiate their looking-glaſſes; or as a Wolf ſuddenly meeting a Man, taketh from him his voyce, or at the leaſt-wiſe maketh him hoarſe.

To conclude, this poyſon infecteth the air, and the air ſo infected killeth all living things, and likewiſe all green things, fruits, and plants of the earth: it burneth up the graſſe whereupon it goeth or creepeth, and the fowls of the air fall down dead when they come near his den or lodging. Sometimes he biteth a Man or a Beaſt, and by that wound the bloud turneth into choler, and ſo the whole body becometh yellow as gold, preſently killing all that touch it, or come near it. The ſymptomes are thus deſcribed by *Nicander*, with whoſe words I will conclude this Hiſtory of the Cockatrice, writing as followeth:

Quod ferit hic, multo corpus ſuccenditur igne,
A membris reſoluta ſuis caro defluit, & fit
Lurida & obſcuro nigreſcit opaca colore.
Nullæ etiam volucres quæ fœda cadavera paſcunt,
Sic occiſum hominem tangunt, ut vultur, & omnes:
Huic ſimiles aliæ, pluviæ quoque nuncius auræ
Corvus, nec quæcunq; fera per devia luſtra
Degunt, è tali capiunt ſibi tabula carne.
Tum teter vacuas odor hinc exhalat in auras,
Atque propinquantes penetrant non ſegniter artus:
Sin cogente fame veniens approximet ales,
Triſtia fata refert, certamq; ex aëre mortem.

Which may be Engliſhed thus;

When he doth ſtrike, the body hurt is ſet on fire,
And from the members falleth off the fleſh, withall,
It rotten is, and in the colour black as any mire.
Refus'd of carrion-feeding-birds both great and ſmall
Are all men ſo deſtroy'd. No Vulture or Biter fierce,
Or Weather telling-crow, or Deſarts wildeſt beaſt,
Which live in dens ſuſtaining greateſt famines force,
But at their tables do this fleſh deteſt.
Then is the air repleat with's lothſome ſmell,
Piercing vital parts of them approaching neer,
And if a bird it taſt to fill his hunger fell,
It dies aſſured death, none need it fear.

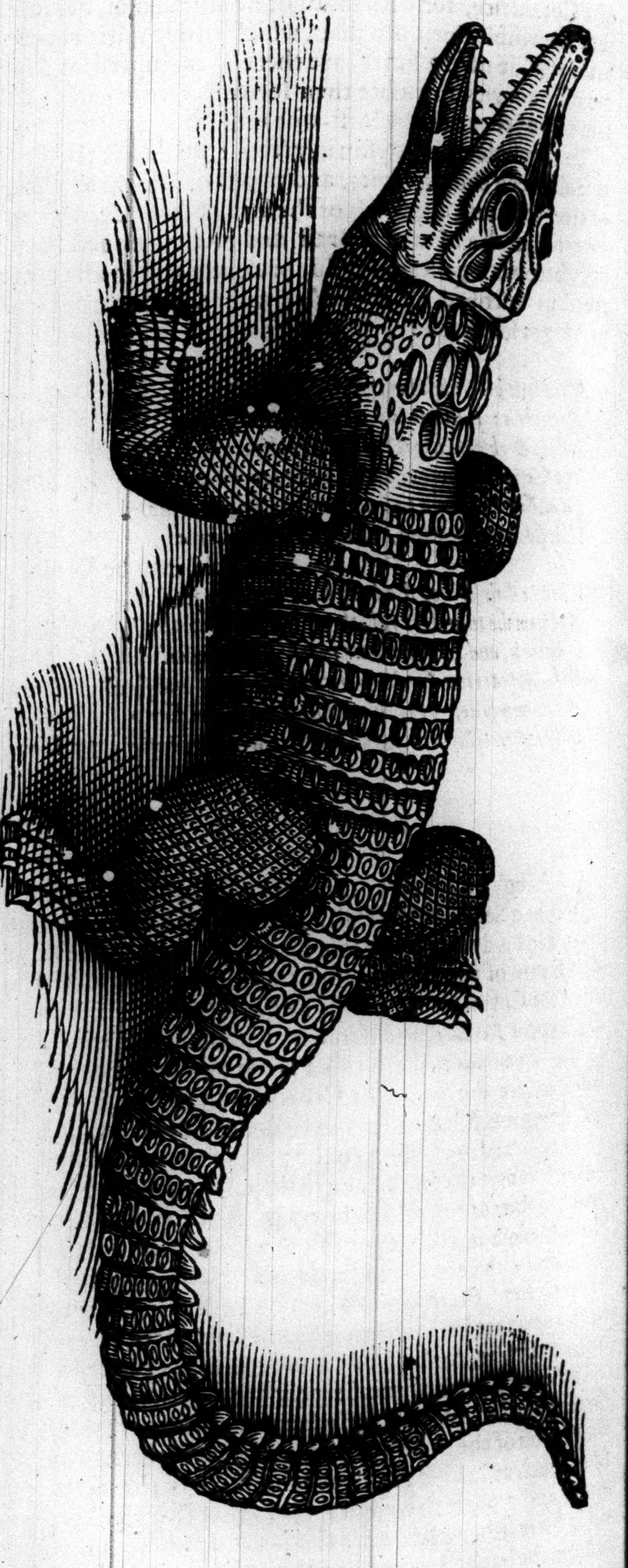
Of the CORDIL.

Although I finde ſome difference about the nature of this living creature, and namely whether it be a Serpent or a Fiſh, yet becauſe the greater and better part make it a Serpent, I will alſo bring it in his due order in this place for a venomous Beaſt. *Geſner* is of opinion, that it is no other but a Lizard of the Water; but this cannot agree with the deſcription of *Ariſtotle* and *Bellonius*, who affirm the Cordil to have Gills like a Fiſh, and theſe are not found in any Lizard. The *Grecians* call this Serpent *Kordule*, and *Kordulos*, whereof the *Latines* derive or rather borrow their *Cordulus*, and *Cordyla*. *Numenius* maketh this a kinde of Salamander which the Apothecaries do in many Countries falſely ſell for the *Scincus* or Crocodile of the earth, and yet it exceedeth the quantity of a Salamander, being much leſſe then the Crocodile of the earth, having gills, and wanting fins on the ſides, alſo a long tail, and according to the proportion of the body, like a Squirrels, although nothing ſo big, without ſcabs: the back being bald and ſomewhat black, and horrible rough, through ſome bunches growing thereupon, which being preſſed do yeeld a certain humor like milk, which being laid to the Noſthrils doth ſmell like poyſon, even as it is in a Salamander. The beak or ſnout is very blunt or dull, yet armed with very ſharp teeth. The claws of his fore-legs are divided into four, and on his hinder-legs into five: there is alſo a certain fleſhy fin growing all along from the crown of his head, unto his tail upon the back, which when he ſwimmeth he erecteth, and by it is his body ſuſtained in the water from ſinking, for his body is moved with crooked winding, even as an Eel or a Lamprey.

The inward parts of this Serpent are alſo thus deſcribed. The tongue is ſoft and ſpungy, like as is the tongue of a Water-frog, wherewith as it were with glew, he draweth to his mouth, both Leeches and Worms of the earth, whereupon it feedeth. At the root of his tongue there is a certain bunch of fleſh, which as I think ſupplyeth the place of the lights, for when it breatheth, that part is eſpecially moved, and it panteth to and fro, ſo that thereby I gather, either it hath the lights in that place, or elſe in ſome other place near the jaws. It wanteth ribs as doth the Salamander, and it hath certain bones in the back, but not like the ordinary back-bone of other ſuch Serpents. The heart is alſo all ſpungy, and cleaveth to the right ſide, not to the left: the left ear whereof ſupplyeth the place of the *Pericardium*.

The liver is very black, and ſomewhat cloven at the bending or ſloap ſide: the milt ſomewhat red, cleaving to the very bottom of the ventricle. The reins are alſo very ſpungy, joyned almoſt to the legs, in which parts it is moſt fleſhy, but in other places, eſpecially in the belly and breaſt, it is all skin and bone. It alſo beareth egges in her place of conception, which is forked or double, which are there diſpoſed in order, as in other living griſtly creatures. Thoſe Egges are nouriſhed with a kinde of red fat, out of which in due time come the young ones alive, in as great plenty and number as the Salamanders. And theſe things are reported by *Bellonius*, beſides whom I finde nothing more ſaid, that is worthy to be related of this Serpent, and therefore I will here conclude the Hiſtory thereof.

of the CROCODILE.



BEcauſe there be many kindes of Crocodiles, it is no marvel although ſome have taken the word *Crocodilus* for the *Genus*, and the ſeveral *Species*, they diſtinguiſh into the Crocodile of the earth and the water. Of the earth are ſub-divided into the Crocodiles of *Breſilia*, and the *Scincus*: the Crocodiles of the water into this here deſcribed, which is the vulgar one, and that of *Nilus*; of all which we ſhall entreat in order, one ſucceſſively following another. But I will not contend about the *Genus* or *Species* of this word, for my purpoſe is to open their ſeveral natures, ſo far as I have learned, wherein the works of Almighty God may be known, and will leave the ſtrife of words to them that ſpend their wits about tearms and ſyllables only. Thus much I finde, that the Ancients had three general tearms for all egge-breeding Serpents. Namely, *Rana, Teſtudo, Lacerta*: And therefore I may forbear to entreat of *Crocodilus* as a *Genus*, and handle it as a *Species*, or particular kinde. The *Hebrews* have many words which they uſe for a Crocodile. *Koah*, Levit. 11. which the *Arabians* render *Hardun*; and the *Perſians*, *Sanga*, which word cometh near the *Latine* word *Scincus* for a Crocodile of the earth, and yet that word *Koah* by Saint *Jerom*, and the *Septuagints* is tranſlated a Chamæleon.

In the ſame place of Leviticus the word *Zab* is interpreted a kinde of Crocodile wherewithall *David Kimhi* confoundeth *Greſchint*, and *Rabbi Solomon*, *Faget*. The *Chaldees* tranſlate it *Zaba*; the *Perſians*, *An Raſu*; the *Septuagints*, a Crocodile of the earth; but it is better to follow Saint *Hierom* in the ſame, becauſe the Text addeth according to his kinde, wherefore it is ſuperfluous to adde the diſtinction of the Crocodile of the earth, except it were lawful to eat the Crocodiles of the water.

In Exod. 8. there is a fiſh called *Zephardea*, which cometh out of the waters and eateth men, this cannot agree to any fiſh in *Nilus*, ſave only the Crocodile; and therefore this word is by the *Arabians* rendered *Al Timeſch*. Some do here by underſtand *Pagulera*, *Grenelera*, and *Batrachoi*, that is great Frogs. *Aluka* by the moſt of the *Jews* underſtand a Horſleach, Prov. 30. but *David Kimbi* taketh and uſeth it for a Crocodile. For he ſaith, it is a great Worm, abiding neer the Rivers ſides, and upon a ſudden ſetteth upon men or cattel as they paſſe beſide him. *Tiſma* and *Alinſa* are by *Avicen* expounded for a Crocodile: and *Tenchea* for that Crocodile that never moveth his neather or under chap.

Strabo ſaith, that in the Province of *Arſinoe* in *Egypt*, there is a holy Crocodile, worſhipped by the Inhabitants, and kept tame by the Prieſts in a certain Lake, this ſacred Crocodile is called *Suchus*, and this word cometh neer to *Scincus*, which as we have ſaid, ſignifieth any Crocodile of the earth, from which the *Arabian Tinſa* ſeemeth alſo to be derived, as the *Egyptian Thampſai* doth come neer to the *Arabian Trenija*. *Herodotus* calleth them *Champſai*, and this was the old *Ionian* word for a Vulgar Crocodile in hedges. Upon occaſion whereof *Scaliger* ſaith, he asked a *Turk* by what name they call a Crocodile at this day in *Turky*, and he anſwered *Kimpſai*, which is moſt evidently corrupted from *Champſai*.

The *Egyptians* vulgarly call the Crocodile of *Nilus*, *Cocatrix*; the *Grecians*, *Neilokrokodeilos*, generally *Krocodeilos*, and ſometimes *Dendrites*. The *Latines*, *Crocodilus*; and *Albertus*, *Crocodillus*, and the ſame word is retained in all languages of *Europe* About the Etymology of this word, I finde two opinions not unprofitable to be rehearſed: the firſt, that *Crocodilus* cometh of *Crocus*, Saffron, becauſe this Beaſt, eſpecially the Crocodile of the earth, is afraid of Saffron, and therefore the Countrey people, to defend their Hives of Bees and Honey from them, ſtrow upon the places Saffron. But this is too far fetched, to name a Beaſt from that which it feareth, and being a ſecret in nature, it is not likely that it was diſcovered at the firſt, and therefore the name muſt have ſome other inveſtigation.

Iſidorus ſaith, that the name *Crocodilus* cometh of *Croceus color*, the colour of Saffron, becauſe ſuch is the colour of the Crocodile: and this ſeemeth to be more reaſonable. For I have ſeen a Crocodile in *England* brought out of *Egypt* dead, and killed with a Musket, the colour whereof was like to Saffron growing upon ſtalks in fields. Yet it is more likely, that the derivation of *Varinus* and *Euſtathius* was the original, for they ſay that the ſhores of ſands on the Rivers, were called *Croce* and *Crocule*: and becauſe the Crocodiles haunt and live in thoſe ſhores, it might give the name to the Beaſts, becauſe the water Crocodiles live and delight in thoſe ſands; but the land or earth Crocodiles abhor and fear them.

It is reported that the famous Grammarian *Artemidorus* ſeeing a Crocodile lying upon the ſands, he was ſo much touched and moved therewith, that he fell into an opinion that his left leg and hand were eaten off by that Serpent, and that thereby he loſt the remembrance of all his great learning and knowledge of Arts. And thus much for the name of this Serpent. *Aurelianus.*

In the next place we are to conſider the Countries wherein Crocodiles are bred, and keep their habitation, and thoſe are eſpecially *Egypt*, for that only hath Crocodiles of both kindes, that is, of the water and of the land, for the Crocodiles of *Nilus* are *Amphibii*, and live in both elements: they are not only in the River *Nilus*, but alſo in all the pools near adjoyning. The River *Bambotus* neer to *Atlas* in *Africa*, doth alſo bring forth Crocodiles: and *Pliny* ſaith, that in *Darat* a River of *Mauritania*, there are Crocodiles ingendered. Likewiſe *Apollonius* reporteth, that when he paſſed by the River *Indus*, he met with many Sea-horſes and Crocodiles, ſuch as are found in the River *Nilus*, and beſides theſe Countries I do not remember any other, wherein are ingendered Crocodiles of the water, which are the greateſt and moſt famous Crocodiles of all other. *Ariſtotle.* *Mela.* *Diod. Sicul.*

The Crocodiles of the earth, which are of leſſer note and quantity, are more plentiful, for they are found in *Lybia*, and in *Bythinia*, where they are called *Azaritia*, and in the Mountain *Syagrus* in *Arabia*, and in the Woods of *India*, as is well obſerved by *Arianus*, *Dioſcorides*, and *Hermolaus*, and therefore I will not proſecute this matter any further.

The kindes being already declared, it follows that we ſhould proceed to their quantity and ſeveral parts. And it appeareth that the water Crocodile is much greater, and more noble then the Crocodiles of the earth; for they are not not above two cubits long, or ſometimes eight at the moſt, but the other are ſixteen, and ſometimes more. And beſides, theſe Crocodiles, if they lay their egs in the water (ſaith *Bellunenſis*) then their young ones are much greater, but if on the land, then they are leſſer, and like the Crocodiles of the earth. In the River *Ganges* there are two kindes of Crocodiles, one of them is harmleſſe, and doth no hurt to any creature, but the other is a devouring unſatiable Beaſt, killing all that he layeth his mouth on, without all mercy or exorable quality, in the top of whoſe ſnowt there groweth a bunch like a horn. *Marcellinus.* *Herodotus.* *Iſidore.*

Now a Crocodile is like a Lizard in all points (excepting the tail, and the quantity of a Lizard,) yet it layeth an Egge no greater then a Gooſes Egge, and from ſo ſmall a beginning ariſeth this monſtrous Serpent, growing all his life long, unto the length of fifteen or twenty cubits. And as *Phalereus* witneſſeth in the days of *Pſammitichus* King of *Egypt*, there was one found of five and twenty cubits long: and before that, in the days of *Amaſis*, one that was above ſix and twenty cubits long, the reaſon whereof was their long life, and continual growth.

We have ſhewed already, that the colour of a Crocodile is like to Saffron, that is, betwixt yellow and red, more inclining to yellow then red, not unlike to the blacker kinde of Chamæleon; but *Peter Martyr* ſaith, that their belly is ſomewhat whiter then the other parts. Their body is rough all over, being covered with a certain bark or rinde, ſo thick, firm, and ſtrong as it will not yeeld (and eſpecially about the back) unto a cart-wheele when the cart is loaded, and in all the upper parts, and the tail, it is impenetrable with any dart or ſpear, yea ſcarſely to a piſtol or ſmall gun, but the belly is ſofter, whereon he receiveth wounds with more facility: for as we ſhall ſhew afterwards, there is a kinde of Dolphin which cometh into *Nilus*, and fighteth with them, wounding them on the belly parts.

Cælius Rho.

The covering of their back is diſtinguiſhed into divers divided ſhells, ſtanding up far above the fleſh, and towards the ſides they are leſſe eminent, but on the belly they are more ſmooth, white, and very penetrable. The eyes of a Crocodile of the water, are reported to be like unto a Swines, and therefore in the water they ſee very dimly, but out of the water they are ſharp and quick ſighted, like to all other four-footed Serpents that lay egges. They have but one eye-lid, and that groweth from the neather part of the cheek, which by reaſon of their eyes never twinckleth. And the *Egyptians* ſay, that only the Crocodile among all the living creatures in the water, draweth a certain thin bright skin from his fore-head over his eyes, wherewithall he covereth his ſight: and this I take to be the only cauſe of his dim ſight in the waters.

Herodotus.
Pliny.
Solinus.
Marcellinus.

The head of this Beaſt is very broad, and his ſnout like a Swines. When he eateth or biteth, he never moveth his neather or under chap. Whereof *Ariſtotle* giveth this reaſon, that ſeeing Nature hath given him ſo ſhort feet, as that they are not able to hold or to take the prey, therefore the mouth is framed in ſtead of feet, ſo as it may more vehemently ſtrike and wound, and alſo more ſpeedily move and turn after the prey, and this is better done by the upper then the neither chap. But it is likely that he was deceived, for he ſpeaketh of *Crocodilus marinus*, a Crocodile of the Sea: whereas there is no Crocodile of the Sea, but rather ſome other monſter like a Crocodile in the Sea, and ſuch peradventure *Albertus* ſaw, and thereupon inconſiderately affirmed, that all Crocodiles move their under-chaps, except the *Teuchea*. But the learned *Veſſalius* proveth it to be otherwiſe, becauſe that the neather-chap is ſo conjoyned and faſtened to the bones of the temples, that it is not poſſible for to be moved. And therefore the Crocodile only amongall other living creatures, moveth the upper-chap, and holdeth the under-chap unmoveable.

Albertus.
Herodotus.

The ſecond wonder unto this, is that the Crocodile hath no tongue, nor ſo much as any appearance of a tongue. But then the queſtion is, how it cometh to diſtinguiſh the ſapours and taſt of his meat. Whereunto *Ariſtotle* anſwereth, that this Crocodile is ſuch a ravening Beaſt, that his meat tarryeth not in his mouth, but is carryed into his ſtomach, like as other water Beaſts, and therefore they diſcern ſapours, and reliſh their meat more ſpeedily then other; for the water or humor falleth ſo faſt into their mouths, that they cannot ſtand long upon the taſt or diſtaſt of their meat. But yet ſome make queſtion of this, and they anſwer that moſt men are deceived herein, for whiles they look for his tongue upon his neather-chap, as it is in all other Beaſts, and finde none, they conclude him to want that part: but they ſhould conſider, that the tongue cleaveth to the moveable part, and as in other Beaſts the neather-chap is the ſeat of the tongue, becauſe of the motion, ſo in this the tongue cleaveth to the upper-chap, becauſe that it is moveable, and yet not viſible as in other, and therefore is very hardly diſcerned. For all this, I rather conclude with the former Authors, that ſeeing it liveth both in the waters and on the land, and therefore it reſembleth a fiſh and a beaſt, as it reſembleth a Beaſt, *locum obtinet linguæ*, it hath a place for a tongue; but as it reſembleth a fiſh, *Elinguis eſt*, it is without a tongue. It hath great teeth ſtanding out, all of them ſtand out before viſibly when the mouth is ſhut, and fewer behinde. And whereas *Ariſtotle* writeth, that there is no living creature which hath both *dentes prominentes*, *& ſerratos*, that is, ſtanding out, and divided like a ſaw, yet the Crocodile hath both. Theſe teeth are white, long, ſharp, and a little crooked and hollow, their quantity well reſembling the reſidue of the proportion of the body: and ſome ſay, that a Crocodile hath three rows of teeth, like the Lyon of *Chins*, and like the Whale, but this is not an approved opinion, becauſe they have no more then ſixty teeth. They have alſo ſixty joynts or bones in the back, which are alſo tyed together with ſo many nerves. The opening of his mouth reacheth to the place of his ears, and there be ſome Crocodiles in *Ganges* which have a kinde of little horn upon their noſes or ſnout. The milt is very ſmall, and this ſome ſay is only in them that bring forth egges, their ſtones are inward and cleave to their loyns. The tail is of the ſame length that the whole body hath, and the ſame is alſo rough and armed with hard skin upon the upper part and the ſides, but beneath it is ſmooth and tender. It hath fins upon the tail, by the benefit whereof it ſwimmeth, as alſo by the help of the feet, The feet are like a Bears, except that they are covered with ſcales in ſtead of hair; their nails are very ſharp and ſtrong, for if it had a thumb as well as it hath feet, the ſtrength thereof would over-turn a ſhip. It is doubtful whether it hath any place of excrement except the mouth; And thus much for the ſeveral parts of the Crocodile.

P. Martyr.
Ælianus.

The knowledge alſo of the natural actions and inclinations of Crocodiles is requiſite to be handled in the next place, becauſe that actions follow the members as ſounds do inſtruments. Firſt therefore, although *Ariſtotle* for the moſt part ſpeaking of a Crocodile, calleth it *aquatilis & fluviatilis*, yet it is not to confine it to the Waters and Rivers, as though it never came out of them like fiſhes, but only to note that particular kinde which differeth from them of the earth, for it is certain that it liveth in both elements, namely earth and water: and for the time that it abideth in the water, it alſo taketh air, and not the humor or moiſtneſſe of the water, yet can they not want either humor of the water or reſpiration of the air; and for the day time it abideth on the land, and in the night in the water, becauſe in the day, the earth is hotter then the water, and in the night the water warmer then the earth: and while it liveth on the land, it is ſo delighted with the Sun-

Herodotus.
Pliny.

ſhine,

ſlime, and lyeth therein ſo immoveable, that a man would take it to be ſtark dead. The eyes of a Crocodile (as we have ſaid) are dull and blinde in the water, yet they appear bright to others, for this cauſe, when the *Egyptians* will ſignifie the Sun-riſing, they picture a Crocodile looking upward to the earth, and when they will ſignifie the Weſt, they picture a Crocodile diving in the water, and ſo for the moſt part the Crocodile lyeth upon the banks, that he may either dive into the water with ſpeed, or aſcend to the earth to take his prey.

By reaſon of the ſhortneſſe of his feet, his pace is very ſlow, and therefore it is not only eaſie to eſcape from him by flight, but alſo if a man do but turn aſide and winde out of the direct way, his body is ſo unable to bend it ſelf, that he can neither winde nor turn after it. When they go under the earth into their caves, like to all fore-footed and egge-breeding Serpents, as namely Lizards, Stellions, and Tortoiſes, they have all their legs joyned to their ſides, which are ſo retorted as they may bend to either ſide; for the neceſſity of covering their egges; but when they are abroad, and go bearing up all their bodies, then they bend only outward, making their thighs more viſible. It is ſomewhat queſtionable, whether they lye hid within their caves four months or ſixty days, for ſome Authors affirm one thing, and ſome another, but the reaſon of the difference is taken from the condition of the cold weather, for which cauſe they lye hid in the Winter time. Now foraſmuch as the Winter in *Egypt* is not uſually above four months, therefore it is taken that they lie but four months, but if it be by accident of cold weather prolonged longer, then for the ſame cauſe the Crocodile is longer time in the earth. During the time they lie hid, they eat nothing, but ſleep (as it is thought) immoveably, and when they come out again, they do not caſt their skins as other Serpents do.

The tail of a Crocodile is his ſtrongeſt part, and they never kill any beaſt or man, but firſt of all they ſtrike him down and aſtoniſh him with their tails, and for this cauſe, the *Egyptians* by a Crocodiles tail do ſignifie death and darkneſſe. They devour both men and beaſts if they finde them in *Orus.* their way, or neer the bankes of *Nilus*, wherein they abide, taking ſometimes a calf from the Cow his Dam, and carrying it whole into the waters. And it appeareth by the pourtraiture of *Neacles*, that a Crocodile drew in an Aſſe into *Nilus* as he was drinking, and therefore the Dogs of *Egypt* by a kinde of natural inſtinct, do not drink but as they run, for fear of the Crocodiles: whereupon came the proverb, *Ut Canis è Nilo bibit & fugit*, as a Dog at one time drinketh and runneth by *Nilus*.

When they deſire fiſhes, they put their heads out of the water as it were to ſleep, and then ſuddenly when they eſpy a booty, they leap into the waters upon them and take them. After that they have eaten and are ſatisfied, then they turn to the land again; and as they lie gaping upon the earth, the little bird *Trochilus* maketh clean their teeth, and is ſatisfied by the remainders of the fleſh ſticking upon them. It is alſo affirmed by *Arnoldus*, that it is fed with mud, but the holy Crocodile in the *Strabo.* Province of *Arſinoe*, is fed with bread, fleſh, wine ſweet and hard, ſod fleſh and cakes, and ſuch like things as the poor people bring unto it when they come to ſee it. When the *Egyptians* will write a *Orus.* man eating or at dinner, they paint a Crocodile gaping.

They are exceeding fruitful and prolifical, and therefore alſo in Hieroglyphicks they are made to ſignifie fruitfulneſſe. They bring forth every year, and lay their egges in the earth or dry land. For during the ſpace of theeſcore days they lay every day an Egge, and in the like ſpace they are hatched into young ones, by ſitting or lying upon them by courſe, the male one while, and the female another. The time of their hatching is in a moderate and temperate time, otherwiſe they *Ælianus.* periſh and come to nothing, for extremity of heat ſpoyleth the egge, as the buds of ſome trees *Solinus.* are burned and ſcorched off by the like occaſion. The egge is not much greater then the egge of a Gooſe, and the young one out of the ſhell is of the ſame proportion. And ſo from ſuch a ſmall beginning doth this huge and monſtrous Serpent grow to his great ſtature, the reaſon whereof, (ſaith *Ariſtotle*) is, becauſe it groweth all his life long, even to the length of ten or moe cubits. When it hath laid the egges, it carryeth them to the place where it ſhall be hatched, for by a natural providence and foreſight; it avoideth the waters of *Nilus*, and therefore ever layeth her egges beyond the compaſſe of her floods: by obſervation whereof, the people of *Egypt* know every year the inundation of *Nilus* before it happen. And in the meaſure of this place it is apparent, that this Beaſt *Plutarch.* is not indued only with a ſpirit of reaſon, but alſo with a fatidical or prophetical geographical delineation, for ſo ſhe placeth her egges in the brim or bank of the flood (before the flood cometh) that the water may cover the neſt, but not her ſelf that ſitteth upon the egges. And the like to this is the building of the Beaver, as we have ſhowed in due place before in the Hiſtory of four-footed Beaſts.

So ſoon as the young ones are hatched, they inſtantly fall into the depth of the water, but if they meet with Frog, Snail, or any other ſuch thing fit for their meat, they do preſently tear it in pieces, the dam biteth it with her mouth, as it were puniſhing the puſillanimity thereof, but if it hunt greater things, and be greedy, ravening, induſtrious and bloudy, that ſhe maketh much of, and killing the other, nouriſheth and tendereth this above meaſure: after the example of the wiſeſt men, who love their children in judgement, fore-ſeeing their induſtrious inclination, and not in affection, without regard of worth, vertue, or merit. It is ſaid by *Philes*, that after the egge is laid by the Crocodile, many times there is a cruel ſtinging Scorpion which cometh out thereof, and woundeth the Crocodile that laid it. To conclude, they never proſper but neer the waters, and they live threeſcore *Solinus.* years, or the age of a mans life.

The nature of this beaſt is to be fearful, ravening, malitious, and treacherous in getting of his prey, the ſubtilty of whoſe ſpirit, is by ſome attributed to the thinneſſe of his bloud, and by other to the hardneſſe of his skin and hide. How it dealeth with her young ones, we have ſhewed already, as it were trying their nature whether they will degenerate or no, and the like things are reported of the Aſps, Cancers, and Tortoyſes of *Egypt*.

From hence came the conceit of *Pietas Crocodili*, the piety of the Crocodile. But as we have ſaid, it is a fearful Serpent, abhorring all manner of noiſe, eſpecially from the ſtrained voyce of a man, and where he findeth himſelf valiantly aſſaulted, there alſo he is diſcouraged, and therefore *Marcellinus* ſaith of him, *Audax Monſtrum fugacibus, at ubi audacem ſenſerit timidiſſimum*: An audacious Monſter to them that run away, but moſt fearful where he findeth reſiſtance.

P. Martyr.

Some have written, that the Crocodile runneth away from a man if he wink with his left eye, and look ſtedfaſtly upon him with his right eye, but if this be true, it is not to be attributed to the vertue of the right eye, but only to the rareneſſe of ſight, which is conſpicuous to the Serpent from one eye. The greateſt terrour unto Crocodiles, as both *Seneca* and *Pliny* affirm, are the Inhabitants of the Iſle *Tentyrus* within *Nilus*; for thoſe people make them run away with their voyces, and many times purſue and take them in ſnares. Of theſe people ſpeaketh *Solinus* in this manner: There is a generation of men in the Iſle *Tentyrus* within the waters of *Nilus*, which are of a moſt adverſe nature to the Crocodile, dwelling alſo in the ſame place. And although their perſons or preſence be of ſmall ſtature, yet herein is their courage admired, becauſe at the ſudden ſight of a Crocodile they are no whit daunted: for one of theſe dare meet and provoke him to run away. They will alſo leap into the Rivers and ſwim after the Crocodile, and meeting with it, without fear caſt themſelves upon the beaſts back, riding on him as upon a Horſe. And if the beaſt lift up his head to bite him, when he gapeth they put into his mouth a wedge, holding it hard at both ends with both their hands, and ſo as it were with a bridle, lead, or rather drive them captive to the land, where with their noiſe they ſo terrifie them, that they make them caſt up the bodies which they had ſwallowed into their bellies: and becauſe of this antipathy in nature, the Crocodiles dare not come neer to this Iſland.

The like thing we have before in our general diſcourſe of Serpents, ſhewed to be in the *Indian Pſylli* againſt the greateſt Serpents. And *Strabo* alſo hath recorded, that at what time Crocodiles were brought to *Rome*, theſe *Tentyrites* followed and drove them. For whom there was a certain great pool or fiſh-pond aſſigned or walled about, except one paſſage for the beaſt to come out of the water into the Sun-ſhine; and when the people came to ſee them, theſe *Tentyrites* with nets would draw them to the land, and put them back again into the water at their own pleaſure. For they ſo hook them by their eyes, and bottom of their bellies, which are their tendereſt parts, that like as Horſes broken by their Riders, they yeeld unto them, and forget their ſtrength in the preſence of theſe their Conquerors.

Peter Martyr in his third Book of his *Babylonian Legation*, ſaith, that from the City *Cair* to the Sea, the Crocodiles are not ſo hurtful and violent as they are up the River *Nilus* into the land, and againſt the ſtream. For as you go further up the River, neer the mountain and hilly places, ſo ſhall you finde them more fierce, bloudy and unreſiſtible, whereof the Inhabitants gave him many reaſons. Firſt, becauſe that part of the River which is betwixt the City *Cair* and the Sea, is very full of all ſorts of fiſhes, whereby the beaſts are ſo filled with devouring of them, that they liſt not come out of the water on the land to hunt after men or cattel, and therefore they are the leſſe hurtful, for even the Lyon and Wolf do ceaſe to kill and devour when their bellies are full. But ſometimes the Crocodiles beneath the River, follow the gales or troups of fiſh up the River, like ſo many fiſher-men, and then the Countrey Fiſher-men incloſe them in nets, and ſo deſtroy them. For there is a very great reward propoſed by the law of the Countrey, to him that killeth a Crocodile of any great quantity; and therefore they grow not great, and by reaſon of their ſmalneſſe are leſſe adventurous. For ſo ſoon as a great Crocodile is diſcovered, there is ſuch watch and care taken to interrupt and kill him for hope of the reward, that he cannot long eſcape alive.

Thirdly, the Crocodiles up the River, towards the Mountains, are more hurtful, becauſe they are preſſed with more hunger and famine, and more ſeldom come within the terror of men, wherefore they forſake the waters, and run up and down to ſeek preys to ſatisfie their hunger, which when they meet withall, they devour with an unreſiſtible deſire, forced and preſſed forward by hunger, which breaketh ſtone walls. But moſt commonly when the River *Nilus* is loweſt, and ſunck down into the channel, then the Crocodiles in the water do grow moſt hungry, becauſe the fiſh are gone away with the floods; and then the ſubtile beaſt will heal and cover himſelf over with ſand or mud, and ſo lie the bank of the River, where he knoweth the women come to fetch water, or the cattel to drink, and when he eſpyeth his advantage, he ſuddenly taketh the woman by the hand that ſhe taketh up water withall, and draweth her into the River, where he teareth her in pieces and eateth her. In like ſort dealeth he with Oxen, Cows, Aſſes, and other cattel. If hunger force him to the land, and he meet with a Camel, Horſe, Aſſe, or ſuch like beaſt, then with the force and blows of his tail he breaketh his legs, and ſo laying him flat on the earth, killeth and eateth him: for ſo great is the ſtrength of a Crocodiles tail, that it hath been ſeen that one ſtroke thereof hath broken all the four legs of a beaſt at one blow.

There is alſo another peril by Crocodiles, for it is ſaid that when *Nilus* falleth, and the water waxeth low, the Barks through want of winde, are fain by the Mariners to be tugged up the ſtream with long lines and cords: the ſubtile Crocodile ſeeing the ſame, doth ſuddenly with his tail ſmite the ſame line with ſuch force, that either he breaketh it, or by his forcible violence tumbleth the Mariner down into the water, whom he is ready to receive with open mouth before he can recover. Yea many times by means thereof the Bark it ſelf ſo tottereth and reeleth, that the violent beaſt taketh a man out of it, or elſe clean over-turneth it, to the deſtruction of all that are in it.

Ælianus ſaith, that among the *Ombitæ* which are in *Arſinoe*, the Crocodiles are harmleſſe, and having ſeveral names when they are called, do put their heads out of the water and take meat gently, which meat is the head and garbage of ſuch ſacrifices as are brought thither. But in another place he writeth, that among the *Ombitæ* or *Coptitæ*, it is not ſafe for a man to fetch water from the River, or to waſh their feet, or walk on the Rivers ſide, but with great caution and warineſſe. For even thoſe beaſts which are moſt kindely uſed by men, do rage againſt their Benefactors, as namely the Crocodile, the Ichneumon, the Wilde-cats, and ſuch like. And yet *Plutarch* in his Book *Utra animalium*, ſaith, that the Prieſts, by the cuſtom of meat-giving, have made ſome of them ſo tame, that they will ſuffer their mouths and teeth to be cleanſed by men. And it is further ſaid, that during the ſeven Ceremonial days of the nativity of *Apis*, there is none of them that ſheweth any wilde trick or cruel part, but as it were by compact betwixt them and the Prieſts, they lay aſide all cruelty and rage during that time.

Marcellinus.

And therefore *Cicero* writeth moſt excellently, ſaying; *Ægyptiorum morem quis ignoret? quorum imbuta mentes pravitatum erroribus, quamvis carnificinam potius ſubierint, quam ibim, aut aſpidem, aut Crocodilon violent.* That is to ſay, Who is ignorant of the cuſtom of the *Egyptians*? whoſe mindes are ſo ſeaſoned and indued with erroneous wickedneſſe, that they had rather undergo any torment, then offer violence to an *Ibis*, an Aſp, or a holy Crocodile. For in divers places, all theſe, and Cats alſo, were worſhipped by the people, according to the ſaying of *Juvenal*:

Crocodilon adorat pars hæc Ægypti,
——Illa pavet ſaturam Serpentibus Ibim.

Which may be Engliſhed thus;

This part of Egypt Crocodiles adore,
That, the Ibis, fed with Serpents ſtore.

But the reaſon of divine worſhip or honour given to the Crocodiles are worth the noting, that the diligent Reader may the better have ſome taſte of that ancient blindeneſſe whereby our fore-fathers were miſted and ſeduced, to forſake the moſt glorious and ever-bleſſed principles of Divinity, for arguments of no weight.

Firſt therefore the Idolatrous Prieſts thought there was ſome divine power in the Crocodile, becauſe it wanted a tongue, for the Deity or Divine ſpeech hath no need of a voyce to expreſſe his meaning, according to the ſaying of the *Grecians*, *Kai di apſophon bainoon keleuthon kai dikes, ta thueta agrikata diken*: For by a mute and ſilent way it aſcendeth, and bringeth all things mortal to a vocal juſtice, which ſpeaketh in action though not in in voyce, even as all that is in the Crocodile, is action and not voyce.

Secondly, by reaſon of a certain thin ſmooth skin coming from the midſt of his fore-head, wherewithall it covereth his eyes, ſo that when it is thought to be blinde, yet it ſeeth: even ſo is it with the Divine power, for even then when it is not ſeen, yet doth it ſee perfectly all mortal things.

Cælius.

Again, by their egges and neſts they uſually fore-ſhew the over-flowing of *Nilus*, to the infinite benefit of their Countrey wherein they live, for thereby the husband-men know when to till their land, and when not, when to ſow and plant, and lead forth their flocks, and when not: which benefit is alſo aſcribed to Divinity, and therefore the Crocodile is honoured with divine power.

Again, it layeth threeſcore egges, and liveth threeſcore years, which number of threeſcore, was in ancient time the firſt dimenſion of heaven and heavenly things.

Cicero alſo ſpeaking againſt this *Egyptian* vanity, ſaith, that they never conſecrated a beaſt for a God, but for ſome apparent utility, as the *Ibis* for devouring of Serpents, and the Crocodile for being a terror to theeves: and therefore the *Arabian* and *Lybian* theeves durſt not come over the River *Nilus* to rob the *Egyptians* for fear of the Crocodiles.

There is a tale in *Diodorus Siculus* of the original of a Crocodiles divine worſhip, which although it cannot be but fabulous, yet I have thought good to inſert it in this place, to ſhew the vanity of ſuperſtition and Idolatry. There was a King of *Egypt* called *Minas*, or as *Herodotus* calleth him *Menes*, who following his Hounds in hunting into a certain mariſh of *Mœris*, fell in with his Horſe, and there ſtuck faſt, none of his followers daring to come after him to releaſe him, ſo that he had there periſhed, had not a Crocodile come and taken him up upon his back, and ſet him ſafe upon the dry land. For which miracle, the ſaid King built there a City, and cauſed a Crocodile to be worſhipped, which was called *Sychus* by all the Inhabitants of that City, and alſo gave all the ſaid Mariſh of *Mœris*, for the ſuſtenance of the ſame. It was nouriſhed with bread, fleſh, and Wine, Cakes, ſod fleſh, and ſweet new Wine: ſo that when any man came to the Lake wherein it was kept, the Prieſts would preſently call the beaſt out of the water, and being come to the land, one of them opened his mouth, and the other put in meat, delicacies, and Wine.

Herodotus.

This Crocodile of *Mœris*, is the ſame that is called *Arſinoe*, and like to that at *Thebes*, about which they did hang jewels of gold, ſilver, and jems of ear-rings, bracelets, and ſuch other things of price. When it dyed, they did ſeaſon the body thereof with ſalt, and buryed it in the holy Tombes or burying Pots. The ſame alſo are called *Ombitæ*, I mean the people of that *Egypt* which dwell in *Arſinoe*, and for the love of the Crocodiles, they abandon all manner of Hawks their enemies, inſomuch that many times they take them and hang them up in publique upon gallows for that purpoſe erected. And further, they keep certain days of triumphs like the *Olympiades*, and games of honour: and ſo far they were blinded with that ſuperſtition, that they thought themſelves exceedingly bleſſed if they loſt their children by them, and thought themſelves much honoured, if they ſaw them with their eyes fetched out of the ſtreets and playing places by Crocodiles.

Again, all the *Egyptians* hold opinion, that the Crocodile is a Divinator, which they prove by the teſtimony of *Ptolomeus*, who calling one of the ſacred Crocodiles, which was the oldeſt and beſt of all, he would not anſwer him, and afterward offering him meat, he alſo refuſed it, whereat many wondered: and ſome of the Prieſts ſaid, it was ſome prognoſtical ſign either of the Kings death or his own, and ſo it fell out ſhortly after, for the ſame Crocodile dyed. As though a Swine might not as well be accounted divine, ſeeing it alſo refuſeth all meat and provocation at the time of their ſickneſſe, and before death.

There is a City in *Egypt* called *Apollinopolis*, the City of *Apollo*, where the Inhabitants abhor and condemn the worſhip of Crocodiles, for when they take any of them they hang them up and beat them to death, notwithſtanding their tears and cryings, and afterwards they eat them: but the reaſon of their hatred is, becauſe *Typhon* their ancient enemy, was clothed with a Crocodiles ſhape. Others alſo ſay, the reaſon of their hatred is, becauſe a Crocodile took away and devoured the daughter of *Pſammites*, and therefore they enjoyned all their poſterity to hate Crocodiles.

Orus.

Ælianus.

To conclude this diſcourſe of Crocodiles inclination, even the *Egyptians* themſelves account a Crocodile a ſavage and cruel murthering Beaſt, as may appear by their Hieroglyphicks, for when they will decipher a mad man, they picture a Crocodile, who being put from his deſired prey by forcible reſiſtance, he preſently rageth againſt himſelf. And they are often taught by lamentable experience, what fraud and malice to mankinde liveth in theſe Beaſts, for they cover themſelves under willows and green hollow banks, till ſome people come to the Waters ſide to draw and fetch water, and then ſuddenly, or ever they be aware, they are taken and drawn into the water. And alſo for this purpoſe, becauſe he knoweth that he is not able to over-take a man in his courſe or chaſe, he taketh a great deal of water in his mouth, and caſteth it in the path-wayes, ſo that when they endevour to run from the Crocodile, they fall down in the ſlippery path, and are over-taken and deſtroyed by him. The common proverb alſo, *Crocodili lachrymæ*, the Crocodiles tears, juſtifieth the treacherous nature of this Beaſt, for there are not many brute Beaſts that can weep, but ſuch is the nature of the Crocodile, that to get a man within his danger, he will ſob, ſigh, and weep, as though he were in extremity, but ſuddenly he deſtroyeth him. Others ſay, that the Crocodile weepeth after he hath devoured a man. Howſoever it be, it noteth the wretched nature of hypocritical hearts, which before-hand will with faigned tears endevour to do miſchief, or elſe after they have done it be outwardly ſorry, as *Judas* was for the betraying of Chriſt, before he went and hanged himſelf.

The males of this kinde do love their females above all meaſure, yea even to jealouſie, as may appear by this one Hiſtory of *P. Martyr*. About the time that he was in thoſe countries, there were certain Mariners which ſaw two Crocodiles together in carnal copulation upon the ſands neer the River, from which the water was lately fallen into a certain Iſland of *Nilus*, the greedy Mariners forſook their ſhip, and betook themſelves to a long boat, and with great ſhouting, hollowing and crying, made towards them in very couragious manner: the male at the firſt aſſault fell amazed, and greatly terrified ran away as faſt as he could into the waters, leaving his female lying upon her back, (for when they ingender, the male turneth her upon her back, for by reaſon of the ſhortneſſe of her legs ſhe cannot do it her ſelf) ſo the Mariners finding her upon her back and not able to turn over her ſelf, they eaſily ſlew her, and took her away with them. Soon after the male returned to the place to ſeek his female, but not finding her, and perceiving bloud upon the ſand, conjectured truly that ſhe was ſlain, wherefore he preſently caſt himſelf into the River of *Nilus* again, and in his rage ſwam ſtoutly againſt the ſtream untill he over-took the ſhip wherein his dead female was, which he preſently ſet upon, lifting up himſelf and catching hold on the ſides, would certainly have entered the ſame, had not the Mariners with all their force battered his head and hands with clubs and ſtaves, until he was wearyed and forced to give over his enterpriſe, and ſo with great ſighing and ſobbing departed from them. By which relation it is moſt clear what natural affection they bear one to another, and how they chooſe out their fellows, as it were fit wives and huſbands for procreation.

And it is no wonder if they make much of one another, for beſides themſelves they have few friends in the world, except the Bird *Trochilus* and Swine, of whom I can ſay little, except this that followeth. As for the little Bird *Trochilus*, it affecteth and followeth them for the benefit of his own belly; for while the Crocodile greedily eateth, there ſticketh faſt in his teeth ſome part of his prey, which troubleth him very much, and many times ingendereth Worms, then the Beaſt to help himſelf taketh land, and lyeth gaping againſt the Sun-beams weſtward, the Bird perceiving it, flyeth to the jaws of the Beaſt, and there firſt with a kinde of tickling-ſcratching, procureth (as it were) licence of the Crocodile to pull forth the Worms, and ſo eateth them all out, and clenſeth the teeth throughly, for which cauſe the Beaſt is content to permit the Bird to go into his mouth. But when all is clenſed, the ingrateful Crocodile endevoureth ſuddenly to ſhut his chaps together upon the Bird, and to devour his friend, like a curſed wretch which maketh no reckoning of friendſhip, but the turn ſerved, requiteth good with evill. But Nature hath armed this little Bird with ſharp thorns upon her head. ſo that while the Crocodile endevoureth to ſhut his chaps and cloſe his mouth upon it, thoſe ſharp thorns prick him into his palate, ſo that full ſore againſt his unkinde nature, he letteth her flye ſafe away. But whereas there be many kindes of *Trochili*, which are greedy of theſe Worms or clenſings of the Crocodiles, ſome of them which have not thorns on their heads pay for it, for there being not offence to let the cloſing of the Crocodiles mouth, they muſt needs be devoured: and therefore this enforced amity betwixt him and the Crocodile, is only to be underſtood of the *Cledororynchus*, as it is called by *Hermolaus*.

Ariſtotle.
Marcellinus.
Ælianus.
Leo Afric.

There be ſome that affirm, that he deſtroyeth all without exception that thus come into his mouth, and otherſome ſay he deſtroyeth none, but when he feeleth his mouth ſufficiently clenſed, he waggeth his upper chap, as it were to give warning of avoidance, and in favour of the good turn, to let the bird flie away at his own pleaſure. Howbeit, the other and the former narration is more likely to be true, and more conſtantly affirmed by all good Authors except *Plutarch*. And *Leo Afric.* ſaith, that it was the conſtant and confident report of all *Africa*, that the Crocodile devoureth all for their love and kindeneſſe, except the *Cledororynchi*, which they cannot, by reaſon of the thorns upon their head.

Plutarch.

That there is an amity and natural concord betwixt Swine and Crocodiles is alſo gathered, becauſe they only among all other living four-footed Beaſts, do without danger dwell, feed and inhabit upon the banks of *Nilus*, even in the midſt of Crocodiles; and therefore it is probable that they are friends in nature. But oh how ſmall a ſum of friends hath this Beaſt, and how unworthy of love among all creatures, that never in nature hath but two, in heaven or earth, air or water, that will adventure to come neer it, and one of theſe alſo, which is the beſt deſerving, it devoureth and deſtroyeth if it get it within his danger.

Calcagninus.

Seeing the friends of it are ſo few, the enemies of it muſt needs be many, and therefore require a more large catalogue or ſtory. In the firſt rank whereof cometh, (as worthy the firſt place) the Ichneumon, or *Pharaohs*-mouſe, who rageth againſt their Egges and their perſons, for it is certain that it hunteth with all ſagacity of ſenſe to finde out their neſts, and having found them, it ſpoileth, ſcattereth, breaketh and emptieth all their egges. They alſo watch the old ones aſleep, and finding their mouths open againſt the beams of the Sun, ſuddenly enter into them, and being ſmall, creep down their vaſt and large throats before they beware, and then putting the Crocodile to exquiſite and intolerable torment, by eating their guts aſunder, and ſo their ſoft bellies, while the Crocodile tumbleth to and fro ſighing and weeping, now in the depth of water, now on the land, never reſting till ſtrength of nature faileth. For the inceſſant gnawing of the Ichneumon ſo provoketh her to ſeek her reſt in the unreſt of every part, herb, element, throws, throbs, rowlings, toſſings, mournings, but all in vain, for the enemy within her breatheth through her breath, and ſporteth her ſelf in the conſumption of thoſe vital parts, which waſte and wear away by yeelding to unpacificable teeth, one after other, till ſhe that crept in by ſtealth at the mouth, like a puny thief, come out at the belly like a Conqueror, through a paſſage opened by her own labour and induſtry, as we have alſo ſhewed at large in the ſtory of Ichneumon. But whether it be true or no, that the *Trochilus* doth awake the ſleeping Crocodile, when he ſeeth the Ichneumon lie in wait to enter into her, I leave it to the credit of *Strabo* the reporter, and to the diſcretion of the indifferent Reader.

Diod. Sicul.
Strabo.

Monkeys are alſo the haters of Crocodiles, as is ſhewed in the ſtory, and lie in wait to diſcover, and if it were in their power to deſtroy them. The Scorpion alſo and the Crocodile are enemies one to the other, and therefore when the *Egyptians* will deſcribe the combat of two notable enemies, they paint a Crocodile and a Scorpion fighting together, for ever one of them killeth another: but if they will decipher a ſpeedy overthrow to ones enemy, then they picture a Crocodile; if a ſlow and ſlack victory, they picture a Scorpion. And as we have already ſhewed out of *Philes*, that out of the egges of Crocodiles, many times come Scorpions, which devour and deſtroy them that lay them.

Fiſhes alſo in their kinde are enemies to Crocodiles, the firſt place whereof belongeth to the moſt noble Dolphin. Of theſe Dolphins it is thought there be two kindes, one bred in *Nilus*, the other forrain and coming out of the Sea, both of them profeſſed enemies to the Crocodile: for the firſt, it hath upon the back of it ſharp thorny prickles or fins, as ſharp as any ſpears point, which are well known to the fiſh that beareth them, as her armour and weapons againſt all adverſaries. In the truſt and confidence of theſe prickles, the Dolphin will allure and draw out the Crocodile from his den or lodging place, into the depth of the River, and there fight with him hand to hand. For the Dolphin as it knoweth his own armour and defence, like other Beaſts and Fiſhes, ſo doth it know the weakeſt parts of his adverſary, and where his advantage of wounding lyeth. Now, as we have ſaid already, the belly of the Crocodile is weak, having but a thin skin, and penetrable with ſmall force, wherefore when the Dolphin hath the Crocodile in the midſt of the deep waters, like one afraid of the fight, underneath him he goeth, and with his ſharp fins or

Strabo.
Solinus.

prickles on his back, giveth his weak and tender belly mortal wounds, whereby his vital ſpirits, with his guts and entrails, are quickly evacuated. The other Dolphins of the Sea being greater, are likewiſe armed with theſe prickles, and of purpoſe come out of the Sea into *Nilus* to bid battel to the Crocodiles.

Seneca.

Strabo.

When *Bibillus* (a worthy *Roman*) was Governor of *Egypt*, he affirmed that on a ſeaſon the Dolphins and the Crocodiles met in the mouth of *Nilus*, and bade battel the one to the other, as it were for the ſoveraignty of the waters, and after that ſharp combat, it was ſeen how the Dolphins by diving in the waters, did avoid the biting of the Crocodiles, and the Crocodiles dyed by ſtrokes received from the Dolphins upon their bellies. And when many of them were by this means as it were cut aſunder, the reſidue betook themſelves to flight, and ran away, giving way to the Dolphins. The Crocodiles do alſo fear to meddle with the Sea-hog, or Hog-fiſh, becauſe of his briſtles all about his head, which hurt him alſo when he cometh nigh him: or rather I ſuppoſe, as it is friend to the Swine of the earth, and holdeth with them a ſympathy in nature, ſo it is unto the Swine of the water, and forbeareth one in the Sea, as it doth the other on the land.

Orus.

Ælianus.

There is likewiſe a certain wilde Ox or Bugil among the *Parthians*, which is an enemy to the Crocodile, for as *Albertus* writeth, if he finde or meet with a Crocodile out of the water, he is not only not afraid of him, but taketh heart and ſetteth upon him, and with the weight and violent agitation of his body, treadeth him all to pieces: and no marvail, for all Beaſts are enemies to the Crocodiles on the land, even as the Crocodile lyeth in wait to deſtroy all them in the water. Hawks are alſo enemies to Crocodiles, and eſpecially the *Ibis* bird, ſo that if but a feather of the *Ibis* come upon the Crocodile by chance, or by direction of a mans hand, it maketh it immoveable and cannot ſtir. For which cauſe, when the *Egyptians* will write or decipher a ravening, greedy, idle-fellow, they paint a Crocodile, having an *Ibis* feather ſticking in his head. And thus much for the enmity betwixt the Crocodiles and other living creatures.

Creſcenſ.

It hath been ſeldom ſeen that Crocodiles were taken, yet it is ſaid that men hunt them in the waters, for *Pliny* ſaith, that there is an aſſured perſwaſion, that with the gal & fat of a Water-adder, men are wonderfully holpen, and as it were armed againſt Crocodiles, and by it enabled to take and deſtroy them, eſpecially when they carry alſo about them the herb *Potamegeton*. There is alſo a kinde of thorny wilde Bean growing in *Egypt*, which hath many ſharp prickles upon the ſtalks, this is a great terrour to the Crocodile, for he is in great dread of his eyes, which are very tender and eaſie to be wounded. Therefore he avoideth their ſight, being more unwilling to adventure upon a man that beareth them, or one of them, then he is to adventure upon a man in compleat Armour, and therefore all the people plant great ſtore of theſe, and alſo bear them in their hands when they travail.

Diodorus.

There be many who in the hunting and proſecuting of theſe Crocodiles, do neither give themſelves to run away from them, nor once to turn aſide out of their common path or road, but in a fooliſh hardineſſe, give themſelves to combat with the Beaſt, when they might very well avoid the danger, but many times it hapneth that they pay dearly for their raſhneſſe, and repent too late the too much reputation of their own manhood: for whiles with their ſpears and ſharp weapons they think to pierce his ſides, they are deceived, for there is no part of him penetrable except his belly, and that he keepeth ſafe enough from his enemies, blunting upon his ſcales (no leſſe hard then plates of Iron) all the violence of their blows and ſharpneſſe of weapons, but clubs, beetles, and ſuch like weapons are more irkſome to him, when they be ſet on with ſtrength, battering the ſcales to his body, and giving him ſuch knocks as doth diſmay and aſtoniſh him. Indeed there is no great uſe of the taking of this Serpent, nor profit of merchandize cometh thereby, his skin and fleſh yeelding no great reſpect in the world.

Herodotus.

In ancient time they took them with hooks baited with fleſh, or elſe incloſed them with nets as they do fiſhes, and now and then with a ſtrong Iron inſtrument caſt out a boat down in the water upon the head of the Crocodile. And among all other there is this one worthy to be related. The Hunter would take off the skin from a Swines back, and therewithal cover his hook, whereby he allured and inticed the Serpent into the midſt of the River, and there making it faſt, he went afterward to the next watering place, and there holding another Hog, did beat and ſmite him, till he cryed ardently, with which voyce or cry, the Crocodile being moved, goeth preſently to the bait and ſwalloweth it up, and maketh after the noiſe: at laſt, coming to the land, the Hunter with valiant courage and diligence, caſteth mud and dirt into his eyes, and ſo blindeth him that he may oppreſſe and kill him with eaſe.

Leo Afric. relateth alſo this means or way to take Crocodiles: There be many Trees planted upon the banks of *Nilus*, unto one of theſe there is a long and ſtrong rope tyed, and at the end of the ſame there is faſtened a hook of a cubit long, and a finger in quantity: unto this hook for a bait is tyed a Ram or a Goat, which being ſet cloſe to the River, and tormented with the hook upon which it is faſtened, cryeth out amain, by hearing of whoſe voyce, the hunger-greedy Crocodile is raiſed out of his den, and invited as he thinketh to a rich prey, ſo he cometh (although it ſelf of a trecherous nature, yet ſuſpecteth not any other) and ſwalloweth the bait, in which he findeth a hook not to be digeſted. Then away he ſtriveth to go, but the ſtrength of the rope ſtayeth his journey, for as faſt as the bait was to the rope and hook, ſo faſt is he alſo enſnared and tyed unto it, which while he waveth and ſtraineth to unlooſe and break, he wearyeth himſelf in vain. And to the intent that all his ſtrength may be ſpent againſt the tree and the rope, the Hunters are at one end thereof, and cauſe it to be caſt to and fro, pulling it in, and now letting it go again, now terrifying the Beaſt with one noiſe and fear, and anon with another, ſo long as they perceive in him any ſpirit of moving or reſiſtance: ſo being quieted, to him they come, and with clubs, ſpears, beetles, ſtaves, and ſuch manner of inſtruments, pierce through the moſt tendereſt parts of his body and ſo deſtroy him.

Peter Martyr hath alſo other means of taking Crocodiles. Their nature is, that when they goe to the land to forrage and ſeek after a prey, they cannot return back again but by the ſame footſteps of their own which they left imprinted in the ſand: whereupon, when the Countrey people perceive theſe footſteps, inſtantly with all the haſt they can make, they come with ſpades and mattocks and make a great ditch, and with boughs cover the ſame, ſo as the Serpent may not eſpy it, and upon the boughs they alſo again lay ſand to avoid all occaſion of deceit or ſuſpicion of fraud at his return: then when all things are thus prepared, they hunt the Crocodile by the foot untill they finde him, then with noiſes of bells, pans, kettels, and ſuch like things, they terrifie and make him return as faſt as fear can make him run towards the waters again, and they follow him as neer as they can, until he falleth into the ditch, where they come all about him, and kill him with ſuch inſtruments or weapons as they have prepared for him, and ſo being ſlain, they carry him to the great City *Cair*, where for their reward they receive ten pieces of gold, which amounteth to the value of ten nobles of our Engliſh coin.

There have been ſome brought into that City alive, as *P. Martyr* affirmeth, whereof one was as much as two Oxen and two Camels could bear and draw, and at the ſame time there was one taken by this deviſe before expreſſed, which had entered into a Village in *Saetum* neer *Nilus*, and ſwallowed up alive three young Infants ſleeping in one Cradle, the ſaid Infants ſcarcely dead were taken again out of his belly, and ſoon after when no more tokens of life apppeared, they were all three buryed in a better and more proper grave of the earth. Then alſo there was another ſlain, and out of his belly was taken a whole Ram not digeſted, nor any part of him conſumed, and the hand of a woman which was bitten or torn off from her body above the wriſt, for there was upon the ſame a Bracelet of Braſſe.

Pliny. *Capitolinus.* *Lampridius.*

We do read that Crocodiles have been taken and brought alive to *Rome*. The firſt that ever brought them thither, was *Marcus Scaurus*, who in the games of his ædility, brought five forth and ſhewed them to the people in a great pond of water, (which he had provided only for that time) and afterward *Heliogabalus* and *Antoninus Pius*. The *Indians* have a kinde of Crocodile in *Ganges*, which hath a horn growing out of his noſe like a Rhinocerot: unto this Beaſt they caſt condemned men to be devoured, for in all their executions, they want not the help of men, ſeeing they are provided of Beaſts to do the office of Hang-men.

Aurelius Feſtivus writeth, that *Firmus* a Tyrant of *Egypt*, being condemned to *Nilus* to be devoured by Crocodiles, beforehand bought a great quantity of the fat of Crocodiles, and ſo ſtripping himſelf ſtark naked, laid the ſame over his body, ſo he went among the Crocodiles and eſcaped death: for this ſavage Beaſt being deceived with the ſavour of its own nature, ſpared the man that had but ſo cunningly carryed it. And this is a wonderful work of Almighty GOD, that ſo ordereth his actions in the nature of this Beaſt, that he beguileth the cruel nature of the living, by the taſt and ſavour of the dead: howbeit ſome think that the water Crocodile is daunted with the ſavour of the fat from the land Crocodile, and the land Crocodile by the water again.

Vadianus.

Aetius.

And ſome again ſay, that all venomous Beaſts run away from the ſavour of the fat thereof; and therefore no marvail if it alſo be afraid, being venomous as well as any other. Wherefore the ſaying of *Firmus* was not to be attributed to any indulgence of the Crocodile toward their own kinde, but rather to a deadly antipathy reflecting themſelves upon themſelves, though not in ſhape and figure as the Cockatrice, yet in ſenſe, ſavour, and rancknesſe of their peſtiferous humor.

P. Martyr.

The uſe of Crocodiles taken, is for their skin, fleſh, caul and medicine ariſing out of it. Their skin as it is exceeding hard upon their backs while they are alive, ſo is it alſo when they are dead, for with that the common people make them better armour then coats of Mail, againſt Darts, Spear, or Shield, as is well known in all *Egypt* at this day. For the fleſh of Crocodiles, it is alſo eaten among thoſe people that do not worſhip it: as namely the people about *Elephantina Apollinopolis*. Notwithſtanding by the Law of God, Levit. 11. it is accounted an unclean Beaſt, yet the taſt thereof being found pleaſant, aud the reliſh good, without reſpect of GOD or health, the common people make uſe thereof.

Herodotus.

The meditines ariſing out of it are alſo many. The firſt place belongeth to the caul, which hath moe benefits or vertues in it then can be expreſſed. The bloud of a Crocodile is held profitable for many things, and among other it is thought to cure the bitings of any Serpent. Alſo by anointing the eyes, it cureth both the dregs or ſpots of bloud in them, and alſo reſtoreth ſoundneſſe and clearneſſe to the ſight, taking away all dulneſſe or deadneſſe from the eyes. And it is ſaid, that if a man take the liquor which cometh from a piece of a Crocodile fryed, and anoint therewithall his wound or harmed part, that then he ſhall be preſently rid of all pain and torment. The skin both of the land and water Crocodile dryed into powder, and the ſame powder with Vinegar or Oyl, laid upon a part or member of the body, to be ſeared, cut off, or lanced, taketh away all ſenſe and feeling of pain from the inſtrument in the action.

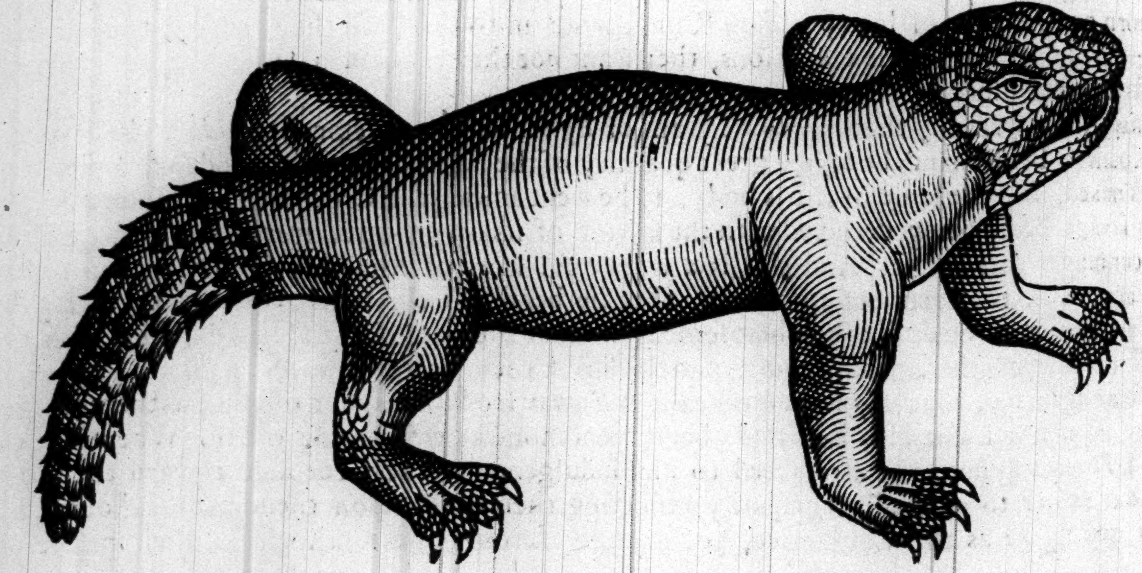
Dioſcorides. *Pliny.* *Arnoldus.*

All the *Egyptians* do with the fat or ſewet of a Crocodile anoint all them that be ſick of Feavers: for it hath the ſame operation which the fat of a Sea-dog or Dog-fiſh hath, and if thoſe parts o, men and beaſts which are hurt or wounded with Crocodiles teeth, be anointed with this fat, it alſo cureth them. Being concocted with water and Vinegar, and ſo rowled up and down in the mouth, it cureth the tooth-ach: and alſo it is outwardly applyed againſt the biting of Flies, Spiders, Worms, and ſuch like, for this cauſe, as alſo becauſe it is thought to cure Wens, bunches in the fleſh, and old wounds. It is ſold dear, and held pretious in *Alcair.* *Scaliger* writeth, that it cureth the Gangren. The canine teeth which are hollow, filled with Frankincenſe, and tyed to a man or woman which hath the Tooth-ach, cureth them, if the party know not of the carrying them about: And ſo they write, that if the little ſtones which are in their belly be taken forth and ſo uſed, they work the ſame effect againſt Feavers. The dung is profitable againſt the falling off of the hair, and many ſuch other things. *Aetius. Rhazes.*

Aetius. The biting of a Crocodile is very ſharp, deep, and deadly, ſo that whereſoever he layeth his teeth, ſeldom or never followeth any cure. But yet the counſel of Phyſitians is, that ſo ſoon as the patient is wounded, he muſt be brought into a cloſe chamber where are no windows, and there be kept without change of air, or admiſſion of light, for the poyſon of the Crocodile worketh by cold air and light; and therefore by the want of both is to be cured. *Arnoldus.* But for remedy (if any be) they preſcribe the ſame which is given for the cure of the biting of a mad Dog, or (as *Avicen*) the biting of a Dog not mad. But moſt proper is the dung of a man, the Fiſh *Garum* and *Myſy* pounded together, and ſo applyed, or elſe the broth of ſalt ſod fleſh, and ſuch other things as are vulgarly known to every Phyſitian: and therefore ſeeing we live in a countrey far from the annoyance of this Serpent, I ſhall not need to blot any paper to expreſſe the cure of this poyſon.

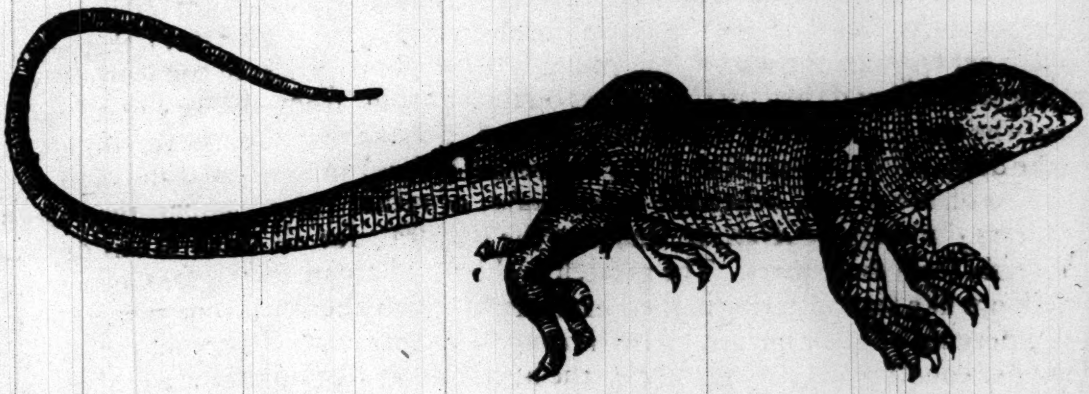
Bellonius. The Crocodile of *Nilus* only liveth on land and water, all other are contented with one element: the picture of the Crocodile was wont to be ſtamped upon coin, and the skin hanged up in many famous Cities of the world, for the admiration of the people, and there is one at this day at *Paris* in *France.*

Of the Arabian *or* Egyptian *LAND CROCODILE.*



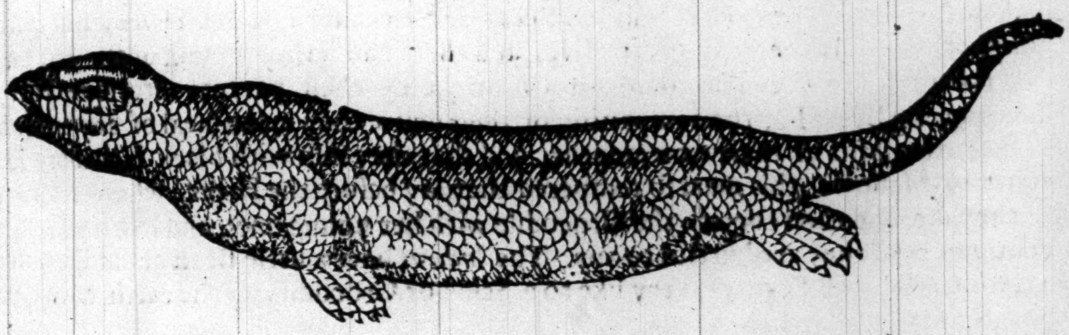
THe figure of this Crocodile ſheweth evidently the difference betwixt him and the other of *Nilus*; and beſide it is neither ſo tall or long as is the other, the which proportioned Beaſt is only particular to *Egypt* and *Arabia*, and ſome becauſe of his ſcaly head, legs, articles, and claws, have obſerved another difference in it from the former: yet in his nature, manner of living and preying upon other cattel, it differeth not from that of the water. The tail of this Crocodile is very ſharp, and ſtandeth up like the edges of wedges in bunches above the ground, wherewithal when he hath mounted himſelf up upon the back of a Beaſt, he beateth and ſtriketh the beaſt moſt cruelly, to make him go with his Rider to the place of his moſt fit execution, free from all reſcue of his Heard-man or Paſtor, or annoyance of paſſengers, where in moſt cruel and ſavage manner he teareth the limbs and parts one from another till he be devoured. The Apothecaries of *Italy* have this Beaſt in their ſhops to be ſeen, and they call it *Caudiverbera*, that is, a Tail-bearer, for the reaſon aforeſaid. And thus there being nothing in this Beaſts nature different from the former, beſides his figure, and that which I have already expreſſed, I will not trouble the Reader with any more Narration about it.

Of the LAND CROCODILE *of* Breſilia.



THe figure and proportion of this Serpent was altogether unknown in this part of the world, till of late our diſcoverers and Navigators brought one of them out of *Breſilia.* The length of it is about a fathom, and the breadth as much as ten fingers broad : the fore-legs have ten claws, five upon a foot, the hinder-legs eight, and both before and behinde they are of equal length. The tail exceeding long, far exceeding the quantity and proportion of his body, being marked all over with certain white and yellowiſh ſpots. The skin all covered with an equal, ſmooth and fine coloured ſcale, which in the midſt of the belly are white, and greater then in other parts. It can abide no water, for a little poured into the mouth killed it, and after it had been two or three days dead, being brought to the fire, it moved and ſtirred again faintly, even as things do that lye a dying. It is not venomous nor hurtful to eat; and therefore is digged out of his cave by any body ſafely without danger.

Of the CROCODILE *of the Earth called* Scincus, *a Scink.*



THere have been ſome that have reckoned Scinks and Lizards among Worms, but as the *Greek* words *Erpeta*, and *Scolex*, differ in moſt apparent dialect, and ſignification, and therefore it is an opinion not worth the confuting, for there are no Worms of this quantity. But for the better explication of the nature of this Beaſt, becauſe ſome have taken it for one kinde, and ſome for another; ſome for a Crocodile, and others for a Beaſt like a Crocodile; we are to know that there are three kindes of Crocodiles: the firſt is a water Beaſt or Serpent, and vulgarly termed a Crocodile, the ſecond is a Scink or a Crocodile of the earth, which is in all parts like that of the water, except in his colour and thickneſſe of his skin: the third kinde of Crocodile is unknown to us at this day, yet *Pliny* and others make mention of it, and deſcribe it to be a beaſt having his ſcales like a Gorgon, growing or turning to his head from the tail, and not as others do, from the head to the tail.

The *Grecians* call this Beaſt *Skighos*, and ſome unlearned Apothecaries *Stincus*, and *Myrepſus Sigk.* It is alſo called *Kikeros*, and the *Hebrew*, *Koach*, doth more properly ſignifie this Beaſt, then any other Crocodile or Chamæleon, or Lizard. Some of the *Hebrews* do expound *Zab* for a Scink; and from thence the *Chaldees* and the *Arabians* have their *Dab* and *Aldab*, turning Z into D: So we read *Guarik* and *Adbaya*, for a Scink or Crocodile of the earth: *Alarbian* is alſo for the ſame Serpent among the *Arabians*, *Balecola*, and *Bullocara Sebanchur*, and *Aſchanchur*, and *Askincor*, and *Scerantum*, and *Nudalep*, and *Nudalepi*, are all of them Synonymaes, or rather corrupted words for this Crocodile of the earth. But there are at this day certain *Pſeudoſcinks* ſet out to be ſeen and ſold by Apothecaries, that are nothing elſe but a kinde of water Lizard: but the true difference is betwixt them, that theſe water Lizards are venomous but this is not, and neither living in the Northern parts of the world, nor yet in the water: and ſo much ſhall ſuffice for the name and firſt entrance into this Serpents Hiſtory.

They are brought out of the Eaſtern Countries, or out of *Egypt*: yet the Monks of *Meſuen* affirm, that they had ſeen Scinks or Crocodiles of the earth about *Rome*. *Sylvaticus* and *Platearius* in *Apulia*. But howſoever their affections may lead them to conjecture of this Serpent, I rather believe that it is an *African* beaſt, and ſeldom found in *Aſia* or *Europe*. They love the banks of *Nilus*, although they dare not enter the water, and for this cauſe ſome have thought (but untruly) that when the Crocodile layeth her egges in the water, the young is there alſo engendered and hatched, and is a Crocodile of the water, but if they lay their egges on the dry land, from thence cometh the Scink or Crocodile of the earth. This folly is evidently refuted, becauſe that they never lay egs in the but all upon the dry land. They are found (as I have ſaid before) in *Egypt*, and alſo in *Africk*, and among the *Lydians* of *Mauritania*, otherwiſe called *Lodya*, or rather *Lybia*, among the Paſtoral or Plow-men *Africans*; among the *Arabians*, and neer the Red-ſea, for all thoſe at this day ſold at *Venice*, are brought from thoſe parts. The greateſt in the world are in *India*, (as *Cardan* teacheth) who are in all things like Lizards, ſaving in their excrements, which ſmell or ſavour more ſtrongly, and generally the difference of their quantity ariſeth from the countrey which they inhabit, for in the hotter and moiſter countrey they are greater, in the hotter dryer Region they are ſmaller, and generally they exceed not two or three cubits in length, with an anſwerable proportionable body, which is thus deſcribed.

There be certain croſſe lines which come along the back one by one, ſomewhat white, and of a dusky colour, and thoſe that be dusky have alſo in them ſome white ſpots. The upper part of the neck is very dusky, the head and the tail are more white, the feet and all the neather part of the breaſt and belly are white, with appearance upon them of ſome ſcales, or rather the skin figured in the proportion of ſcales: upon either feet they have five diſtinct fingers or claws, the length of their legs is a thumb and a half: that is, three inches, the tail two fingers long, the body ſix, ſo that the whole length from the head to the tip of the tail, (which is firſt thick, and then very ſmall at the end) is about eight fingers. When they have taken them they bowel them, and fill their bodies with Sugar, and Silk of Wooll, and ſo they ſell them for a reaſonable price. That which I have written of their length of eight fingers, is not ſo to be underſtood, as though they never exceeded or came ſhort of that proportion: for ſometimes they are brought into theſe parts of the World twenty or four and twenty fingers long, ſometimes again not above five or ſix fingers long.

Ariſtotle. When they lay their Egges, they commit them to the earth, even as the Crocodiles of the water do. They live upon the moſt odoriferous flowers, and therefore is his fleſh ſo ſweet, and his dung or excrements odoriferous. They are enemies to Bees, and live much about Hives, inſomuch as ſome have thought they did lay their Egges in Hives, and there hatch their young ones: But the occaſion of this error was, that they ſaw young ones brought by their parents into ſome Hive, to feed upon the labouring Bee. For the compaſſing of their deſire they make meal of any tree, which they have ground in the Mill of their own mouths, and that they mix with black Hellebore juyce, or with the liquor of Mallows, this meal ſo tempered they lay before the Hives, whereof aſſoon as the Bees taſt, they die, and then cometh the Crocodile with her young ones, and lick them up; and beſide Bees, I do not read they are hurtful to any. *Ælianus.* The *Indians* have a little Beaſt about the quantity of a little Dog, which they call *Phattage*, very like to a Scink or Crocodile of the earth, having ſharp ſcales, as cutting as a ſaw.

Rhazes. There is ſome hurt by this beaſt unto men, for which cauſe I may juſtly reckon it among the venomous, for if it chance to bite any man, if the wounded man falleth into a Fever before he make water, he dyeth for it, but if he firſt make water, the beaſt dyeth and the man eſcapeth.

It is thought that it containeth a kinde of natural magick, witch-craft, or ſorcery; and therefore they ſay it hath a ſtupifying power, changing the minde from love to hatred, and from hatred to love again. The powder of this Serpent drunk in Wine, if it ſtir venereous luſt, it hurteth the nerves and ſinews. There be certain magical deviſes raiſed out of this Serpent which are not worth the writing, as not having in them any dram of wit, learning, or truth; and therefore I will not trouble the Reader with them, but follow on the concluſion of this Crocodiles ſtory in the Narration of the medicinal vertues, which are far moe and more operative then thoſe in the former Crocodile, for I think Almighty GOD bleſſeth meekneſſe and innocency with exceſſe of grace in men and beaſts, as may be ſeen in theſe two kindes of Crocodiles, the dung and excrement of the one, being more worth then the body of the other, through harmleſſe innocency.

The body of this Serpent to be dryed, after it hath lyen long in Salt, and to be preſerved in Noſewort, as *Ruellius* and *Marcellus* write: (but truth is, there is no need of Salt where Noſewort is applyed, becauſe the Acrimony of this hearb doth eaſily dry up the moiſture of this beaſt, keeping Worms from breeding in it.) With the powder thus prepared, venereous men ſtir up their luſts. Mithridate is called *Diaſcncu*, becauſe it is compounded of the Scink or Crocodile of the earth, and it containeth in it a moſt noble Antidote againſt all poyſons. *Galen* had an Antidote againſt Scorpions, which among other things containeth in it the fleſh of a Crocodile of the earth, wherewithall he cured all them that had been ſtung with Scorpions in *Lybia*. It is alſo good againſt the bitings of mad beaſts, and pleuriſies; againſt poyſoned Honey, or the crudity and loathing that cometh in the ſtomack by eating of ſound Honey: It is profitable againſt empoyſoned Arrows or Darts, being taken immediately before or after the wound, as *Apelles* hath obſerved.

Serapio did make a medicine compounded of the dung of this Crocodile, and applyed the ſame againſt the Falling-ſickneſſe. Of the body of this Scink, except the head and feet being ſod or roſted, and eaten by them that have the *Sciatica*, and old cough (eſpecially children,) or the pain of the loins, giveth them much eaſe. They are alſo mixed with medicines againſt the pain of the feet, as *Galen* did for *Amarantus* the Grammarian. They are alſo good in medicine againſt the coldneſſe of the ſinews. This beaſt is very hot, and therefore increaſeth the ſeed of man, and provoketh luſt; and for this purpoſe the greateſt and fatteſt, and ſuch a one as is taken in the Spring time, when they burn in luſt for copulation, is preferred. But this is not to be meant of the fleſhy parts, but only of thoſe parts that are about the reins, if a man drink thereof the weight of a groat in Wine afterwards, for the alaying of the heat thereof, the Phyſitians do preſcribe a decoction of Lentiles with Honey, and the ſeed of Lettice drunk in Water. The ſnout of this Crocodile with the feet drunk in white Wine, hath the ſame operation: but we have ſhewed already, that theſe parts are to be cut off and thrown away, becauſe if there be any venom in the beaſt it lyeth in them.

A perfume being made of the body and intrails of this Crocodile under the womb of a woman labouring with childe, is thought to yeeld much help, for her ſafe, ſpeedy, and eaſie travail, or flocks of Wool perfumed therewith, and laid to her belly. But it is the part of good Phyſitians to be wary in giving of medicines for ſtirring up of luſt in any, except in marryed perſons, and then alſo when they are young, to procure a lawful iſſue and poſterity into the world; otherwiſe they ſhall both decay the body, for all violent helps of carnal copulation, do in the end prove detriments to nature, if they continue any time, and alſo they are hurtful to the Soul, when not only the unnatural deſire of luſt, but alſo the intemperate pleaſure of ſin is increaſed thereby; and that is a miſerable cure, which killeth the Soul to help one part of the body. Beſides all kindes of medicines for this purpoſe, (amongſt which this Crocodile is the chief) have their peculiar venom, and when they are miniſtred, either they have no effect at all through age or overmuch impotency, or elſe they work too violently, which is moſt dangerous, or ſome one hurt or other followeth the poyſon: and ſo I will leave the proſecution of this part.

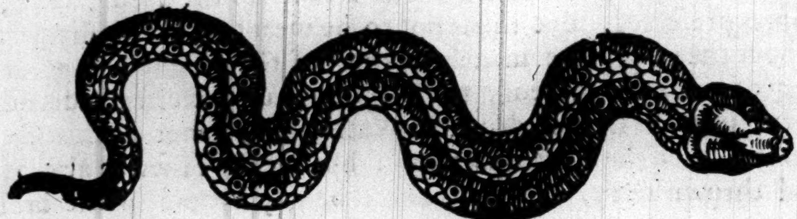
The duſt of the skin of this Crocodile being anointed with Vinegar or Oyl upon any part or member which is to be cut off, taketh away the ſenſe of pain in the time of execution. The bloud is good for the eyes, and taketh away the filthy skin of the body, with the ſpots and burls in the face, reſtoring the firſt, true, native, and lively colour. The fat taketh away the pain in the reins, and cauſeth a diſtillation of the ſeed of man, yet this fat touching the hair of a man, maketh it to fall off; and a man anointed herewith, is ſafe from the annoyance of Crocodiles, although they play with him. It alſo cureth the bitings of Crocodiles; the inſtillation of this Crocodile, folded up in the Wooll of a black Sheep of the firſt birth, and wherein is no other colour, hath power to drive a quartane Ague. And *Rhaſis* ſaith, that it being hung over the head of a woman in travail, keepeth her from delivery. In the gall of this Serpent there is a power againſt the falling off of the hair, eſpecially if the medicine be made of the roots of Beets to neeſe withall; and beſides, the eyes being anointed therewith, and with Honey, there is nothing more profitable againſt ſuffuſions. The ſtones and reins have power to provoke generation; and *Aetius* preſcribeth an Antidote to be made of the tail of this beaſt, againſt the Gout.

Great is the vertue of the dung or excrement of this Serpent, if the ſame could be eaſily found, but while it is ſought for, it loſeth the vertue. It is called *Crocodillia*, and is profitable to give a good colour to womens faces, that is the beſt which is whiteſt, ſhort, and not heavy, feeling like leaven betwixt the fingers, that is, ſmelling ſomewhat ſharp like leaven.

It is adulterated with meal, chalk, white-earth, or painting, but it is diſcerned by the heavineſſe. The reaſon of the vertue of this is, becauſe it feedeth upon the ſweeteſt and beſt ſmelling herbs, whereby it cometh to paſſe, that it doth not only ſmell fragrantly, but alſo contain in it many excellent vertues. Firſt therefore it is good for the comelineſſe of the face, to give colour to it, according to the ſaying of *Horace*: *Colorque ſtercore fucatus Crocodili*: A colour in-grained with the dung of a Crocodile; and for this cauſe alſo is the verſe of *Ovid*, *Nigrior ad Pharii confuge piſcis opem*: That is, The black Woman goeth to crave help of the Fiſh *Pharius*, to become more beautiful; for by the fiſh *Pharius* is underſtood a Crocodile. As ſome think, eight grains of this dung, or rather the weight of eight groats, with half ſo much Muſtard-ſeed and Vinegar, cureth the falling off of the hair. *Arnoldus* doth preſcribe a compoſition of the dung and Cantharides, for the regenerating and bringing again of hair that is decayed. If a perfume hereof be made and infuſed by a Tunnel into the holes of Serpents, it will drive them away, by reaſon of the ſharp and leaveniſh ſavour thereof.

Tralianus maketh a medicine thereof for an Eye-ſalve againſt the whiteneſſe and bloud-eyes. It is good alſo againſt dimneſſe and ſuffuſions, being anointed with the juyce of Leeks: and to conclude, it is drunk in ſweet Wine and Vinegar, againſt the Falling-ſickneſſe, and alſo being applyed unto women, ſtirreth up their monthly courſes. And thus much ſhall ſuffice for the ſtory of the Crocodile.

Of the DART.



AMong the divers kindes of Serpents, there is one of ſpecial note, which the Græcians call *Acontia*. The *Latines*, *Jaculares*, or *Jaculi*, or *Sagitta*, a Dart or Arrow. The *Græcians* at this day *Saetta*. The *Turks*, *Orchilanne*: In *Calabria* and *Sicilia*, *Saettone*, and of the *Germans*, *Ein ſchoſſz oder angelſch lang*. The reaſon of this name is taken from his ſwift leaping upon a man to wound and kill him; and therefore the Poets ſay, *Jaculiq; volucres*, ſpeaking of theſe kindes of Serpents. *Albertus* and *Avicen* alſo; calleth them *Caſezati*, and *Caſezaci*, *Altararat*, *Acoran*, and *Altinanti*.

The manner of this Serpent is to get up into trees or hedges, and from thence to flie like an Arrow upon the upper parts of men, and ſo to ſting, bite, and kill them: and of this kinde it is thought that was, which came upon the hand of the Apoſtle *Paul*, whereof the Poet writeth;

Ecce procul ſævus ſterilis derobore trunci
Torſit, & immiſit (Jaculum vocat Africa) Serpens:
Perque caput Pauli tranſactaque tempora fugit.
Nil ibi virus agit: rapuit cum vulnere fatum,
Deprenſum eſt, quæ funda rotat, quàm lenta volarent,
Quàm ſegnis Scythicæ ſtrideret arundinis aer.

In Engliſh thus;

Loe from afar, a cruel Serpent from an Oke
Came flying like a Dart, in Africa the ſame
A Dart is cald, the head and temples ſtroke
Of Paul, by winding ſpires to work his bane:
But nothing could the poyſon there avail,
For with the wound he put away his death
Faſter then ſwifteſt flye, or turning ball,
Or Scythian reed remov'd with windy breath.

Marcellinus.
Bellonius.
Olaus Mag.

This kinde of Serpent is for the moſt part in *Lybia*, in *Rhodes*, in *Lemnus*, in *Italy*, *Calabria*, and *Sicilia*, and in many of the Northern Countries, and alſo in *Germany*, whereof *Geſner* telleth this ſtory following. There is neer the Coaſts of *Zurick* a River called *Glat*, and a Village or Town upon that River *Glatfelden*. Near this River, as a poor man was gathering wood, there was a Serpent of ſome three or four foot long, which from a tree endevoured to leap upon the poor man, by gathering his body together, (as it were into four ſpires or riſings like half hoops) the man ſeeing it, left his ſack and ran away: neverthelesſe, the Serpent leaped after him at the leaſt ſixteen or ſeventeen foot, but yet for that time he laſt turned about him, and not ſeeing the Serpent to follow him, gathered courage and comfort, and would come back again for his ſack that he had left behinde him. The crafty Serpent expecting ſo much, had ſet himſelf again in another tree, and privily lay till the man came for his ſack, and then ere he was aware came flying at him as he did before, and preſently winded about his left arm; all his body except his tail hung down, and his neck which he held up hiſſing in the mans face: the man having no ſleeve on his arm except his ſhirt, yet did the Serpent ſo preſſe the skin and fleſh, that the circles of his winding ſpires and prints of his body appeared therein after he was taken off, yet did he not bite the man, for the poor Countrey fellow did preſently with his other hand take him by head and caſt him away, notwithſtanding he had ſo folded himſelf about his arm: ſhortly after that arm began to grow mattery, and all the fleſh to the bone conſumed, yet was all the rotten putrified envenomed fleſh and ſubſtance, by the skill of a worthy learned Phyſitian taken away, and as good fleſh brought in the room thereof as ever was before; yet was the man every year preſcribed to let that arm bleed, and then iſſued forth black thick bloud: ſome of the wounds or rather ſcars, of the poyſon outwardly remaining.

Olaus Mag.

In the Northern parts they leap ten foot at a time, firſt gathering themſelves into the ſimilitudes of Bows or half hoopes, and then fight with thoſe that they would devour, making many times a noiſe among the herbs or flowers, which are parched or withered by the Sun; and therefore by the bounty of GOD in nature, their own noiſe bewrayeth them to their ſuſpitious adverſaries, and ſo many times are avoided in ſafety. Like unto theſe are certain in *Hungary*, (as *Johannes Vitus* reported unto *Geſner*,) whoſe bodies of an equal craſſitude or thickneſſe, ſo as they appear without tails, being for that purpoſe called *Decurtati*, Curtails, theſe in the ſame manner do leap upon men as theſe Darters do, but they are very ſhort, ſeldom exceeding the length of two hands breadth.

There is ſome difference among Authors about the nature of this Serpent: for *Ælianus* confoundeth it with the Snake of the Earth, called *Cherſydrus*, and ſaith it liveth ſometime in the water, and ſometime on the land, lying in wait to deſtroy all living creatures. And (he ſaith) it uſeth this fraud, it ever lyeth hid in ſecret neer the high-ways, and many times climbeth up into trees where it roundeth it ſelf round into a circle, and hideth his head within the folds of his own body, ſo ſoon as ever it eſpyeth a Paſſenger, either a Man or Beaſt, it leapeth upon him as ſwift as a Dart flyeth. For it is able to leap twenty cubits ſpace, and ſo lighting upon the Man or Beaſt, ſticketh faſt unto it without falling off of his own accord, until they fall down dead.

But herein *Ælianus* ſeemeth to be deceived, becauſe he maketh but one Serpent of twain: namely, this Dart and the Land-ſnake, which are moſt apparently different in nature, kinde, and quality.

Aetius alſo confoundeth this Serpent with the Millet-ſerpent, called *Cenchrites*, and ſaith it is of the quantity of two cubits, great on the head, and the fore-part ſmaller at the tail, being of a greeniſh colour. And he ſaith further, that at ſuch time as the Millet-ſeed groweth and flouriſheth, this Serpent is moſt ſtrong and hurtful, and ſo with the reſidue he agreeth with *Ælianus*, but herein he is alſo deceived, writing by hear-ſay as himſelf confeſſeth, and therefore it is more ſafe for us to have recourſe to ſome eye-witneſſe for the deſcription of this Serpent, then to ſtand upon the opinions of them which write by the relation of others.

Bellonius ſaith, that he ſaw one of theſe in *Rhodes*, being full of ſmall round black ſpots, not greater then the ſeeds of Lentiles, every one having a round circle about him like an eye, after ſuch a faſhion as is to be ſeen in the little Fiſh called the *Torpedo*. In length it exceedeth not three palms, and in bigneſſe no greater then the little finger. It was of an Aſh-colour, coming neer to the whiteneſſe of milk, but under the belly it was altogether white: upon the back it had ſcales, but upon the belly a thin skin, as in all other Serpents.

The upper part of the back was ſomewhat black, having two black lines in the middle, which begin at the head, and ſo are drawn along the whole body to the tail. As for the *Caſezati*, and *Alterarati* or *Altinatyri*, thoſe are red Serpents, (as *Avicen* ſaith) which are but ſmall in quantity, yet as deep and deadly in poyſon as in any other, for they hurt in the ſame manner that theſe Darts do. Some of them do ſo wound with their poyſon, as the afflicted perſon dyeth incontinent without ſenſe or pain: Some again die by languiſhing pain after many hopes of recovery, loſing life. Among all the people of the World, the *Sabeans* are moſt annoyed with this kinde of red Serpents; for they have many odoriferous and ſweet ſmelling Woods, in the which theſe Serpents do abound, but ſuch is their rage and hatred againſt men, that they leap upon them and wound them deadly, whenſoever they come within their compaſſe. And ſurely if it be lawful to conjecture what kinde of Serpents thoſe were, which in the Scripture are called fiery Serpents, and did ſting the *Iſraelites* to death in the Wilderneſſe, until the Brazen Serpent was erected for their cure; among all the Serpents in the world, that kinde of pain and death can be aſcribed to none more properly then to theſe *Caſezati*, or Red-dart-ſerpents.

For firſt the Wilderneſſe which was the place wherein they annoyed the people, doth very well agree to their habitation. Secondly, thoſe fiery Serpents are ſo called by figure, not that they were fiery, but as all Writers do agree, either becauſe they were red like fire; or elſe becauſe the pain which they inflicted, did burn like fire, or rather for both theſe cauſes together which are joyntly and ſeverally found in theſe red Serpents; and therefore I will conclude for my opinion, that theſe Serpents (as the higheſt poyſon in nature) were ſent by GOD to afflict the ſinning Iſraelites, whoſe poyſon was uncurable, except by Divine miracle.

Matthiolus alſo telleth a ſtory of a Shepheard which was ſlain in *Italy* by one of theſe, as he was ſleeping in the heat of the day under the ſhadow of a tree, his fellow Shepheards being not far off looking to their flocks, ſuddenly there came one of theſe Dart-ſerpents out of the tree, and wounded him upon his left pap, at the biting whereof the man awaked and cryed out, and ſo dyed incontinently: his fellow Shepheards hearing this noiſe, came unto him to ſee what he ailed, and found him dead, with a Serpent upon his breaſt; now knowing what kinde of Serpent this was, they forſook their flocks and ran away for fear.

The cure of this Serpents biting, if there be any at all, is the ſame which cureth the Vipers, as *Aetius* and *Avicen* writeth, and therefore I will not relate it in this place. The gall of this Beaſt mixed with the *Scythian* Stone, yeeldeth a very good Eye-ſalve. The which gall lyeth betwixt the back and the liver: And thus much ſhall ſuffice for this Serpent.

Of the DIPSAS.

THis Dipſas hath many names from many occaſions: Firſt *Dipſas* in *Greek* ſignifieth thirſt, as *Sitis* doth in *Latine*, and thereof alſo it is called *Situla*, becauſe whoſoever is wounded by this Serpent dyeth. It is alſo called by ſome *Preſter*; and by ſome *Cauſon*, becauſe it ſetteth the whole body on fire: but we ſhall ſhew afterwards, that the *Preſter* is a different Serpent from this. It is called likewiſe *Melanurus*, becauſe of his black tail, and *Ammoatis*, becauſe it lyeth in the ſand, and there hurteth a man. It is not therefore unfitly defined by *Avicen*, to be

Vipera ſitim faciens, that is, A Viper cauſing thirſt, and therefore *Ovid* ſporting at an old drunken woman named *Lena*, calleth her Dipſas in theſe verſes;

Eſt quædam nomine Dipſas anus,
Ex re nomen habet, nigri non illa parentem
Memnonis in roſeis ſobria vidit equis.

In Engliſh th[illegible];

There is a woman old, which Dipſas may be hight,
And not without ſome cauſe, thirſty ſhe ever is,
For never Memnons ſire, all black and ſeldom bright,
Did ſhe in water ſweet behold in ſoberneſſe.

They live for the moſt part neer the waters, and in ſalt mariſhy places: whereupon *Lucan* ſaid:

——Stant in margine ſiccæ
Aſpides, & mediis ſitiebant Dipſades undis.

That is to ſay;

Upon pits brink dry Aſpes there ſtood,
And Dipſads thirſt in midſt of water flood.

It is called *Torrida Dipſas*, and *Arida Dipſas*, becauſe of the perpetual thirſt, and therefore the *Egyptians* when they will ſignifie thirſt, do picture a Dipſas: whereupon *Lucianus* relateth this ſtory, there is (ſaith he) a ſtatue or monument upon a Grave, right over againſt the great *Syrtes* betwixt *Sillya* and *Egypt*, with this Epigram:

Talia paſſus erat quoque Tantalus Æthiope ortus,
Qui nullo potuit fonte levare ſitim.
Tale nec è Danao natas implere puellas
Aſſiduis undis vas potuiſſe reor.

That is to ſay;

Such Tantalus indured in Æthiope bred,
Which never could by water quench his thirſt,
Nor could the Grecian Maids with water ſped,
That with dayly pourings till the veſſel curſt.

The ſtatue was the picture of a man like unto *Tantalus*, ſtanding in the midſt of a water ready to drink, by drawing in of the water, about whoſe foot was folded a Dipſas: cloſe by ſtood certain women bringing water, and pouring it into him to make it run into his mouth; beſides, there were certain Egges as it were of *Eſtriches* lay pictured beſide them, ſuch as the *Garamants* in *Lybia* ſeek after. For it is reported by *Lucianus*, that the people of that Countrey do earneſtly ſeek after the Eſtriches Egges upon the ſands, not only to eat the meat that is in them, but alſo to make ſundry veſſels or inſtruments of the ſhell, and among other things they make Caps of them. Near unto theſe Egges do theſe treacherous Serpents lie in wait, and ſo while the poor Countrey man cometh to ſeek for meat, ſuddenly he leapeth upon him, and giveth him a mortal wound.

Alciatus hath an Embleme, which he ſeemeth to have tranſlated out of *Greek* from *Antipater Sidonius*, of a Falconer, which while he was looking up after Birds for meat for his Hawk, ſuddenly a Dipſas came behinde him and ſtung him to death. The title of his Embleme is, *Qui alta contemplatur cadere*, he that looketh high may fall, and the Embleme it ſelf is this that followeth:

Dum turdos viſco, pedica dum fallit alaudas,
Et jacta altivolam figit arundo gruem,
Dipſada non prudens auceps pede perculit, ultrix
Illa mali, emiſſum virus ab ore jacit.
Sic obit, extento qui ſidera reſpicit arcu,
Securus fati quod jacet ante pedes.

Which may be thus Engliſhed;

Whiles Thruſh with line, and Lark deceived with net,
And Crane high flying pierced with force of reed,
By Falconer was: behold a Dipſas on the foot did ſet,
As if it would revenge his bloudy foul miſdeed,
For poyſon out of mouth it caſt, and bit his foot,
Whereof he dyed, like Birds by him deceived,
Whiles bending bow aloft unto the ſtars did look,
Saw not his fate below, which him of life bereaved.

This Dipſas is inferior in quantity unto a Viper, but yet killeth by poyſon, much more ſpeedily, according to theſe verſes;

Exiguæ ſimilis ſpectatur Dipſas echidnæ,
Sed feſtina magis mors ictus occupat ægros.
Parva & lurida cui circa ultima cauda nigreſcit.

That is to ſay;

This Dipſas like unto the Viper ſmall,
But kills by ſtroke with greater pain and ſpeed,
Whoſe tail at end is ſoft and black withall,
That as your death avoid, with careful heed.

It is but a ſhort Serpent, and ſo ſmall (as *Arnoldus* writeth,) it killeth before it be eſpyed, the length of it not paſt a cubit, the fore-part being very thick, except the head which is ſmall, and ſo backward it groweth ſmaller and ſmaller: the tail being exceeding little, the colour of the fore-part ſomewhat white, but ſet over with black and yellow ſpots, the tail very black. *Galen* writeth, that the ancient *Marſi* which were appointed for hunting Serpents and Vipers about *Rome*, did tell him that there was no means outwardly to diſtinguiſh betwixt the Viper and the Dipſas, except in the place of their abode, for the Dipſas (he ſaith) keepeth in the ſalt places; and therefore the nature thereof is more fiery, but the Vipers keep in the dryer Countries, wherefore there are not many of the Dipſades in *Italy*, becauſe of the moiſtneſſe of that Countrey, but in *Lybia*, where there are great ſtore of ſalt mariſhes. As we have ſaid already, a man or beaſt wounded with this Serpent, is afflicted with intolerable thirſt, inſomuch as it is eaſier for him to break his belly, then to quench his thirſt with drinking, always gaping like a Bull, caſteth himſelf down into the water, and maketh no ſpare of the cold liquor, but continually ſucketh it in till either the belly break, or the poyſon drive out the life, by overcoming the vital ſpirits. To conclude, beſide all the ſymptomes which follow the biting of Vipers, which are common to this Serpent, this alſo followeth them, that the party afflicted can neither make water, vomit, nor ſweat, ſo that they periſh by one of theſe two ways; firſt either they are burned up by the heat of the poyſon, if they come not at water to drink, or elſe if they come by water, they are ſo unſatiable, that their bellies firſt ſwell above meaſure, and ſoon break about their privy parts. To conclude, all the affections which follow the thick poyſon of this Serpent are excellently deſcribed by *Lucan* in theſe verſes following;

Signiferum juvenem Tyrrheni ſanguinis Aulum
Torta caput retrò Dipſas calcata momordit.
Vix dolor aut ſenſus dentis fuit: ipſaque leti
Frons caret invidia: nec quicquam plaga minatur.
Ecce ſubit virus tacitum, carpitque medullas
Ignis edax, calidaque incendit viſcera tabe.
Ebibit humorem circum vitalia fuſum
Peſtis, & in ſicco linguam torrere palato
Cœpit, defeſſos iret qui ſudor in artus
Non fuit, atque oculos lachrymarum vena refugit.
Non decus imperii, non mœſti jura Catonis
Ardentem tenuere virum, quin ſpargere ſigna
Auderet, totiſque furens exquireret agris,
Quas poſcebat aquas, ſitiens in corde venenum.
Ille vel in Tanaim miſſus, Rhodanumque Padumque,
Arderet, Nilumque bibens per rura vagantem:
Acceſſit morti Libyæ: fatique minorem
Famam Dipſas habet terris adjuta peruſtis.
Scrutatur venas penitus ſqualentis arenæ:
Nunc redit ad Syrtes & fluctus accipit ore:
Æquoreuſque placet, ſed non & ſufficit humor.
Nec ſentit fatique genus, mortemque veneni:
Sed putat eſſe ſitim: ferroque aperire tumentes
Suſtinuit venas, atque os implere cruore. Lucan. lib. 9.

In Engliſh thus;

Tyrhenian Aulus, the ancient-bearer young,
Was bit by Dipſas, turning head to heel, (ſtrong,
No pain or ſenſe of's teeth appear'd, though poyſon
Death doth not frown, the man no harm did feel,
But loe ſlie poyſon takes the marrow, and eating fire
Burning the bowels warm till all conſumed,
Drinking up the humor about the vital ſpire,
And in dry palat was the tongue up burned.
There was no ſweat the ſinews to refreſh,
And tears fled from the vein that feeds the eyes,
Then Catoes law, nor Empires honor freſh,
This fiery youth could hold: but down the ſtreamer flies,
And like a mad man about the fields he runs,
Poyſons force in heart did waters crave:
Though unto Tanais, Rhodanus, Padus he comes,
Or Nilus: yet all too little for his heat to have.
But dry was death, as though the Dipſas force
Were not enough, but holp by heat of earth,
Then doth he ſearch the ſands: but no remorſe,
To Syrtes floud he hies, his mouth of them he filleth,
Salt water pleaſeth, but it cannot ſuffice,
Nor knew he fate, or this kinde venoms death,
But thought it thirſt, and ſeeing his veins ariſe
Them cut, which bloud ſtopt mouth and breath.

The ſignes of death following the biting of this Serpent, are extreme drought and inflamation both of the inward and outward parts, ſo that outwardly the parts are as dry as Parchment, or as a skin ſet againſt the fire, which cometh to paſſe by aduſtion and commutation of the bloud, into the nature of the poyſon. For this cauſe many of the ancients have thought it to be incurable; and therefore were ignorant of the proper medicines, practiſing only common medicines preſcribed againſt Vipers: but this is generally obſerved, that if once the belly begin to break, there can be no cure but death. Firſt therefore they uſe ſcarification, and make uſtion in the body, cutting off the member wounded. If it be in the extremity, they lay alſo playſters unto it, as Triacle, liquid Pitch with Oyl, Hens cut aſunder alive, and ſo laid to hot, or elſe the leaves of Purſlain beaten in Vinegar, Barley meal, Bramble leaves pounded with Honey, alſo Plantain, Hyſop, white Garlick, Leeks, Rue and Nettles. Then muſt the government of their bodies be no leſſe looked unto; firſt, that they be kept from all ſharp and ſalt meats, then, that they be made continually to drink Oyl, to procure vomit, and with their vomits which they caſt out of their ſtomach, to give them glyſters; that ſo the waters may be drawn to their lower parts. Beſides, ſome take medicines out of Fiſhes, eſpecially ſuch as are ſalt, and the leaves, bark, or ſprigs of Laurel: and to conclude, there is nothing better then Triacle compounded of Vipers fleſh. And thus much for the Dipſas.

Of the DOUBLE-HEAD.

BEcauſe the *Grecians* call this Serpent ***Amphisbaina***, and the *Latines* from thence ***Amphisbæna***, becauſe it goeth both ways, as if it had two heads and no tail: and for this purpoſe it is never ſeen to turn his body, as it were turn about his head. When it hath a purpoſe to avoid that thing which it feareth, or wherewithal it is offended, he doth but only change his courſe backward as he went forward; ſo that it is as happy as *Lynceus*, whom the Poets faign to be very quick-ſighted, or as thoſe Monſters which are ſaid to have eyes in their backs, or rather like to *Janus*, which is ſaid to have two faces, one forward, and another backward, and therefore I have called it Double-head, I truſt fitly enough to expeſſe the *Greek* word, although compounded of two words together, for ſo is the *Greek* word alſo, which the *French* do expreſſe by a like compounded word, ***Double-marcheur***, that is, going two ways. It is likewiſe called ***Ankeſime***, ***Alchiſmus***, and ***Amphiſilene***. And thus much may ſuffice for the name.

It is ſaid that this Serpent is found in the Iſland *Lemnus*, but among the *Germans* it is unknown. There is ſome queſtion whether it may be ſaid to have two heads or no. *Galen* affirmeth, that it is like a Ship having two fore-parts, that is, one behinde, and another before. *Pliny* alſo ſubſcribeth hereunto, and maketh it a very peſtilent Serpent, *Geminum habet caput Amphisbæna, tanquam parum eſſet, uno ore fundi venenum*, ſaith he; It hath a double-head, as though one mouth were not enough to utter his poyſon, according to the ſaying of the Poet:

Eſt gravis in geminum ſurgitis caput Amphis-benæ
Serpens qui viſu necat & ſibilo.
Which may be Engliſhed thus;
This Serpent Double-head, is grievous to be ſeen,
Whoſe cloven-head doth kill with ſight and hiſſing keen.

Unto this alſo *Ælianus* ſubſcribeth, that it is a true Serpent, and hath two heads, ſo that whenſoever it is to go forward, one of them ſtandeth in the place of the tail, but when it is to go backward, then the head becometh the tail, and the tail the head. So alſo *Mantuan* ſaith it is a double-headed Serpent, and a fearful ſtinging Aſp. And ſo generally all the Ancients, until *Matthiolus* and *Grevinus* time, who firſt of all began to contrary this opinion, affirming it to be impoſſible in nature, for one Serpent to have two heads, except it be monſtrous, and exceed the common courſe of nature. Such a one was that Serpent with two heads that *Ariſtotle* ſpeaketh of, which doth eaſily happen to all thoſe creatures which at one birth bring forth many young ones; for ſo their bodies may be conjoyned into one, while theit heads ſtand aſunder like twain. And they ſay that this Serpent doth reſemble a Worm of the earth, whoſe head and tail is hard to be diſtinguiſhed aſunder except you ſee it going. And they ſay further, that this Serpent is like to the *Scytal*, of which we ſhall ſpeak afterwards, differing from it in nothing except in going backward and forward, and this is all that they can bring againſt the opinion of the Ancients, whom I will not ſtand to confute, but leave the Reader to believe one or other: for it ſhall not bring to me any great diſadvantage, except the loſſe of this new Engliſh name, for I have dealt faithfully with the Reader in ſetting down the opinion of both ſides, and if I do fail in a fit name, yet will I not ſwerve from the beſt deſcription of his nature.

The whole proportion of his body is of equal magnitude or greatneſs, and the two extremities do anſwer the middle. His eyes are for the moſt part ſhut, the colour like earth, not black, but tending to blackneſſe, the skin rough and hard, and ſet over with divers ſpots: all which properties, or rather parts are thus deſcribed by *Nicander*.

Cujus perpetua eſt cæcum caligine lumen,
Quod latas utrinq; genas porrrectaq; menta,
Terreus eſt illi color, & denſiſſima pellis
Plurima quam varii diſtinctam ſigna figurant,
Plus aliis alto Serpentibus aggere tendat.
In Engliſh thus:
Whoſe eye is ever void of light, becauſe
Two cheeks both broad and ſtanding up it hides,
The colour earth, thick skin, with ſpots in rows,
Then other Serpents with greater bulk it glides.

Solinus Polihiſtor affirmeth, that they ingender and bring egges forth of the mouth, that is, out of that mouth which is toward the tail, if there be any ſuch. There is no Serpent that doth more boldly adventure to indure the cold then this doth, for it cometh out of his den not only before other Serpents, but alſo before the Cuckoe ſing, or the Graſhopper cometh forth. They are exceeding careful of their egges, and therefore ſeldom depart from them until they be hatched, whereby alſo may be collected their great love to their young ones. And further, by their forward and timely coming out of their holes, *Grevinus* maketh a good obſervation, that their temperament or conſtitution, is more hot then any other Serpent.

The *Grecians* have all obſerved, that this kinde of Serpent is hard to be killed, except with a Vine-branch, which they ſay was demonſtrated by *Dionyſius*, who being turned by *Juno* into madneſſe, one day falling faſt aſleep, this Serpent leaped upon him and awaked him, whereat he being angry, preſently killed it with a Vine-branch. Some have affirmed that a ſmall rod or bat covered with the skin of this Serpent, and ſo laid beſide a man, driveth away all manner of venomous Beaſts. A wilde Olive-branch or ſprig wapped in this skin, doth cure the ſenſeleſſe and benummed eſtate of the ſinews, and alſo is good for many things, as *Nicander* expreſſeth in theſe verſes:

Hæc ubi jam crevit, cædentes ligna coloni
Sectamdeglabrant oleaſtri ex arbore virgam,
Quale pedum, ſtrictiſq; prehenſi pellibus Anguis
Inſectam obvolvunt, quas certis deinde diebus
Exarere ſinunt, cantantes ante cicadas.

Utilis hic baculus frigentibus artubus eſſe
Fertur, ubi ex animis digitos torpedo fatigat,
Tunc quia conſtrictos, & eorum vincula, nervos
Calfacit immiſſo fovet extenditq; calore.

Which may be Engliſhed thus;

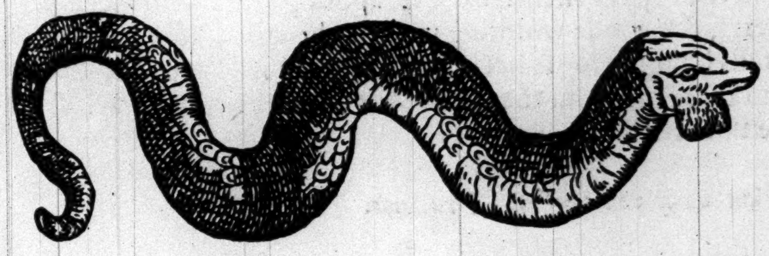
When this is grown, the Peaſants cutting wood,
Do peel a branch taken from Olive-wilde,
A foot in length, of ſtrained Snakes-skin good,
Rowling it up herein, till days fulfild,

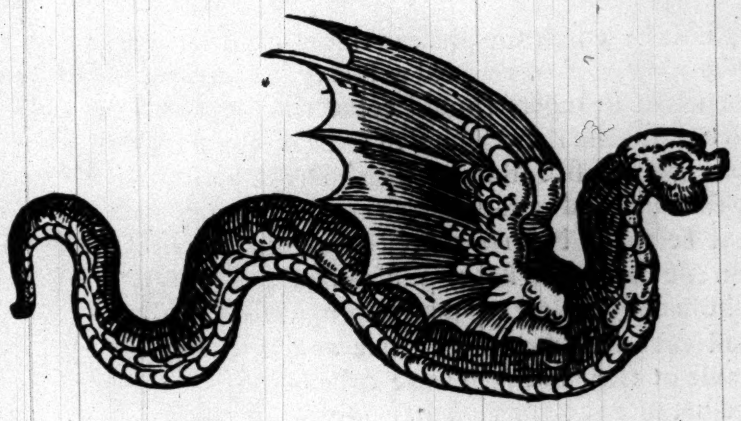
And let it dry before Graſhoppers green:
Thus made, is good for Sinews cold,
Or nummed fingers, whoſe force hath been
By heat extending what cold hand did hold.

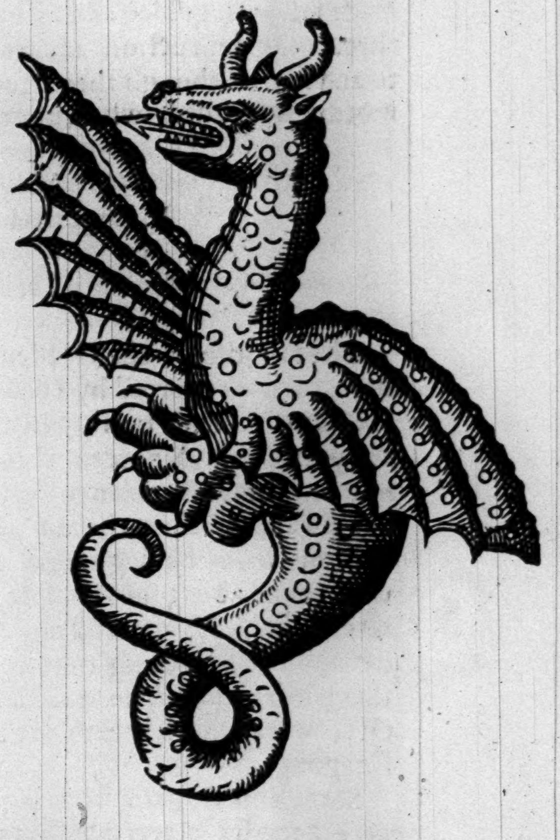
The wounds that come by the biting or ſtinging of this Serpent, are not great, but very ſmall, and ſcarcely to be diſcerned outwardly, yet the accidents that follow, are like to thoſe which enſue the bitings of Vipers, namely, inflamation, and a lingering death. The cure thereof muſt be the ſame which is applyed unto the ſting of Vipers. And peculiarly I finde not any medicine ſerving for the cure of this poyſon alone, except that which *Pliny* ſpeaketh of, namely Coriander drunk by the patient, or laid to the ſore.

It is reported by *Galen* and *Grevinus*, that if a woman with childe do chance to go over one of theſe Double-headed Serpents dead, ſhe ſhall ſuffer abortment, and yet that they may keep them in their pockets alive without danger in boxes. The reaſon of this is given by *Grevinus*, becauſe of the vapour aſcending from the dead Serpent, by a ſecret antipathy againſt humane nature, which ſuffocateth the childe in the mothers womb. And thus much for this Serpent.

Of the DRAGON.







AMong all the kindes of Serpents, there is none comparable to the Dragon, or that affordeth and yeeldeth ſo much plentiful matter in Hiſtory for the ample diſcovery of the nature thereof: and therefore herein I muſt borrow more time from the reſidue, then peradventure the Reader would be willing to ſpare from reading the particular ſtories of many other. But ſuch is the neceſſity hereof, that I can omit nothing making to the purpoſe, either for the nature or morality of this Serpent, therefore I will ſtrive to make the deſcription pleaſant, with variable hiſtory, ſeeing I may not avoid the length hereof, that ſo the ſweetneſſe of the one, (if my pen could ſo expreſſe it) may countervail the tedious neſſe of the other.

The *Hebrews* call it *Thanin*, and *Wolphius* tranſlateth *Oach* a Dragon, in his Commentaries upon *Nehemiah*. The *Chaldees* call it *Darkon*, and it ſeemeth that the *Greek* word *Dracon* is derived of the *Chaldee*. We read of *Albediſimon*, or *Abedyſimon*, for a kinde of Dragon, and alſo *Albatraf*, and *Hauden*, *Haren carnem*, and ſuch other terms, that may be referred to this place. The *Grecians* at this day call it *Drakos*; the *Germans*, *Trach Lindtwarm*; the *French*, *Vn Dragon*; the *Italians*, *Drago*, and *Dragone*. The derivation of the *Greek* word, beſide the conjecture afore expreſſed, ſome think to be derived from *Derkein*, becauſe of their vigilant eye-ſight, and therefore it is faigned that they had the cuſtody not only of the Golden-fleece, but alſo of many other treaſures. And among other things, *Alciatus* hath an emblem of their vigilancy ſtanding by an unmarried Virgin.

Vera hæc effigies innuptæ eſt Palladis: ejus
Hic Draco, qui dominæ conſtitit ante pedes.
Cur Divæ comes hoc animal? cuſtodia rerum
Huic data, ſic lucos ſucraque templa colit.
Innuptas opus eſt cura aſſervare puellas
Pervigili: laqueos undique tendit amor.

Which may be Engliſhed thus;

This Dragon great which Lady Pallas ſtands before,
Is the true picture of unmarried Maids:
But why a conſort to the Goddeſſe is this? and more
Then other beaſts more meek, who never fades?
Becauſe the ſafegard of all things belong to this, (ſet,
Wherefore his houſe in Groves and ſacred Temples
Unmarried Maids of guards muſt never miſſe,
Which watchful are to void loves ſnares and net.

For this cauſe the *Egyptians* did picture *Serapis* their God with three heads, that is to ſay, of a Lyon in the middle, on the right hand a meek fawning Dog, and on the left hand a ravening Wolf, all which forms are joyned together by the winding body of a Dragon, turning his head to the right hand of the God; which three heads are interpreted to ſignifie three times; that is to ſay, by the Lyon the preſent time; by the Wolf, the time paſt; and by the fawning Dog, the time to come; all which are guarded by the vigilancy of the Dragon. For this cauſe alſo among the fixed Stars of the North, there is one called *Draco*, a Dragon, all of them ending their courſe with the Sun and Moon, and they are in this Sphear called by Aſtronomers the Interſections of the Circles, the ſuperior of theſe aſcending, is called the head of the Dragon, and the inferior deſcending, is called the tail of the Dragon. And ſome think that GOD in the 38. of Job, by the word *Gneiſh*, meaneth this Sign or Conſtellation.

To conclude, the ancient *Romans* (as *Vegetius* writeth) carryed in all their Bands the Eſcutchion of a Dragon, to ſignifie their fortitude and vigilancy, which were born up by certain men called for that purpoſe *Draconarii*. And therefore when *Conſtantius* the Emperor entered into the City of *Rome*, his ſouldiers are ſaid to bear up upon the tops of their ſpears, Dragons gaping with wide mouths, and made faſt with golden chains and pearl, the winde whiſtling in their throats, as if they had been alive, threatning deſtruction, and their tails hanging looſe in the air, were likewiſe by the winde toſſed to and fro, as though they ſtrove to come off from the ſpears, but when the winde was laid, all their motion was ended, whereupon the Poet ſaith:

Manſueſcunt varii vento ceſſante Dracones.

In Engliſh thus;

When whiſtling winde in air ceaſt,
The Dragons tamed then did reſt.

The tale alſo of the Golden-fleece, if it be worth any place in this ſtory, deſerveth to be inſerted here, as it is reported by *Diodorus Siculus*. When *Aetes* reigned in *Pontus*, he received an anſwer from the Oracle, that he ſhould then dye when ſtrangers ſhould come thither with ſhips and fetch away the Golden-fleece. Upon which occaſion he ſhewed himſelf to be of a cruel nature, for he did not only make Proclamation that he would ſacrifice all ſtrangers which came within his Dominions, but did alſo perform the ſame, that by the fame and report of ſuch cruelty, he might terrifie all other Nations from having acceſſe unto that Temple. Not contented herewith, he raiſed a great ſtrong wall round about the Temple wherein the Fleece was kept, and cauſed a ſure watch or guard to attend the ſame day and night, of whom the *Grecians* tell many ſtrange fables. For they ſay there were Bulls breathing out fire, and a Dragon warding the Temple and defending the Fleece, but the truth is that theſe watchmen becauſe of their ſtrength were called Bulls, becauſe of their cruelty, were ſaid to breath out fire, and becauſe of their vigilancy, cruelty, ſtrength and terror, to be Dragons.

Some affirm again, that in the Gardens of *Heſperides* in *Lybia*, there were golden Apples, which were kept by a terrible Dragon, which Dragon was afterward ſlain by *Hercules*, and the Apples taken away by him, and ſo brought to *Euryſtheus*. Others affirm that *Heſperides* had certain flocks of ſheep, the colour of whoſe wooll was like gold, and they were kept by a valiant ſhepheard called *Draco*: but I rather agree with *Solinus*, who giveth a more true reaſon of this fable, *Ne famæ licentia vulneretur*

vulneretur fides, leſt (as he ſaith) faith and truth ſhould receive a diſgrace or wound by the laviſh report of fame. There was among the *Heſperides* a certain winding River coming from the Sea, and including within it the compaſſe of that land which is called the Gardens of *Heſperides*, at one place whereof, the falling of the water broken by a Rock, ſeemeth to be like the falling down of Snakes, to them that ſtand a far off, and from hence ariſeth all the occaſion of the fable aforeſaid.

Indeed there was a ſtatue of *Hercules*, in the left hand whereof were three Apples, which he was ſaid to have obtained by the conqueſt of a Dragon; but that conqueſt of the Dragon did morally ſignifie his own concupiſcence, whereby he raigned over three paſſions, that is to ſay, over his wrath by patience; over his cupidity by temperance; and over his pleaſures by labour and travail: which were three vertues far more pretious then three golden Apples. But I will ſtay my courſe from proſecuting theſe moral diſcourſes of the Dragon, and return again to his natural Hiſtory, from which I have ſomewhat too long digreſſed.

There are divers ſorts of Dragons, diſtinguiſhed partly by their Countries, partly by their quantity and magnitude, and partly by the different form of their external parts. There be Serpents in *Arabia* called *Sirenæ*, which have wings, being as ſwift as Horſes, running or flying at their own pleaſure, and when they wound a man, he dyeth before he feeleth pain. Of theſe it is thought the Prophet *Eſay* ſpeaketh, chap. 13. verſ. 22. *Serpens clamabit in Templis voluptariis*: and for Serpents the old Tranſlators read *Syrenæ*, and ſo the Engliſh ſhould be, the *Syrene* Dragons ſhould cry in their Temples of pleaſure: and the ancient diſtinction was, *Angues aquarum, Serpentes terrarum, Dracones Templorum*: that is to ſay, Snakes are of the water, Serpents of the earth, and Dragons of the Temples. And I think it was a juſt judgement of God, that the ancient Temples of the Heathen Idolaters were annoyed with Dragons, that as the Devil was there worſhipped, ſo there might be appearance of his perſon in the ugly form and nature of a Dragon. For God himſelf in holy Scripture, doth compare the Devil unto a Dragon, as Rev. 12. verſ. 3. *And there appeared another wonder in Heaven, for behold a great red Dragon, having ſeven heads, and ten horns, and ſeven crowns upon his head.* Verſ. 4. *And his tail drew the third part of the ſtars of heaven, and caſt them to the earth: and the Dragon ſtood before the Woman which was ready to be delivered, to devour her childe when ſhe had brought it forth.* Verſ. 5. *So ſhe brought forth a man-childe, which ſhould rule all Nations with a rod of Iron. And her Son was taken up unto God and to his throne.* Verſ. 6. *And the Woman fled into the Wilderneſſe, where ſhe hath a place prepared of God, that they ſhould feed her there 1260 days.* Verſ 7. *And there was a battail in heaven,* Michael *and his Angels fought againſt the Dragon, and the Dragon fought and his Angels.* Verſ. 8. *But they prevailed not, neither was their place found any more in heaven.* Verſ. 9. *And the great Dragon that old Serpent called the Devill and Satan, was caſt out, which deceiveth all the world, he was even caſt unto the earth, and his Angels were caſt out with him.* Verſ. 13. *And when the Dragon ſaw that he was caſt unto the earth, he perſecuted the Woman which had brought forth a man-childe*: and ſo forth, as it followeth in the Text. Whereupon Saint *Auguſtine* writeth, *Diabolus Draco dicitur propter inſidias, quia occulte inſidiatur*: that is, the Devill is called a Dragon becauſe of his treachery, for he doth treacherouſly ſet upon men to deſtroy them.

It was wont to be ſaid, becauſe Dragons are the greateſt Serpents, that except a Serpent eat a Serpent, he ſhall never be a Dragon: for their opinion was, that they grew ſo great by devouring others of their kinde; and indeed in *Æthiopia* they grow to be thirty yards long, neither have they any other name for thoſe Dragons but Elephant-killers, and they live very long. *Ælianus.*

Oneſicritus writeth, that one *Apoſiſares* an *Indian*, did nouriſh two Serpents Dragons, whereof one was ſix and forty cubits long, and the other fourſcore: and for the more famous verification of the fact, he was a very earneſt ſuter to *Alexander* the Great, when he was in *India*, to come and ſee them, but the King being afraid, refuſed.

The Chroniclers of the affairs of *Chius* do write, that in a certain Valley neer to the foot of the Mountain *Pellenæus*, was a Valley full of ſtraight tall trees, wherein was bred a Dragon of wonderful magnitude or greatneſſe, whoſe only voyce or hiſſing, did terrifie all the Inhabitants of *Chius*, and therefore there was no man that durſt come nigh unto him, to conſider or to take a perfect view of his quantity, ſuſpecting only his greatneſſe by the loudneſſe of his voyce, until at length they knew him better by a ſingular accident worthy of eternal memory. For it hapned on a time that ſuch a violent winde did ariſe, as did beat together all the Trees in the Wood, by which violent colliſion the branches fell to be on fire, and ſo all the Wood was burned ſuddenly, compaſſing in the Dragon, whereby he had no means to eſcape alive, & ſo the trees fel down upon him and burned him. Afterward, when the fire had made the place bare of wood, the Inhabitants might ſee the quantity of the Dragon, for they found divers of his bones and his head, which were of ſuch unuſual greatneſſe, as did ſufficiently confirm them in their former opinion: and thus by divine miracle was this monſter conſumed, whom never any man durſt behold being alive, & the Inhabitants of the Countrey ſafely delivered from their juſt conceived fear.

It is alſo reported, that *Alexander* among many other Beaſts which he ſaw in *India*, did there finde in a certain den a Dragon of ſeaventy cubits long, which the *Indians* accounted a ſacred Beaſt, and therefore intreated *Alexander* to do it no harm. When it uttered the voyce with full breath, it terrified his whole Army: they could never ſee the proportion of his body, but only the head, and by that they gueſſed the quantity of the whole body, for one of his eyes in their appearance ſeemed as great as a *Macedonian* buckler. *Maximus Tyrius* writeth that in the days of *Alexander*, there was likewiſe ſeen a Dragon in *India*, as long as five roods of lands are broad, which is incredible. For he likewiſe ſaith that the *Indians* did feed him every day with many ſeveral Oxen and Sheep. It may be that it was the ſame ſpoken of before, which ſome ignorant men, and ſuch as were given to ſet forth fables, amplyfied beyond meaſure and credit.

Whereas Dragons are bred in *India* and *Africa*, the greateſt of all are in *India*; for in *Æthiopia*, *Nubia*, and *Heſperia* the Dragons are confined within the length of five cubits and twenty cubits: for in the time of *Euergetes*, there were three brought into *Egypt*, one was nine cubits long, which with great care was nouriſhed in the Temple of *Eſculapius*, the other two were ſeaven cubits long. About the place where once the Tower of *Babel* was builded, are Dragons of great quantity, and under the Equinoctial, as *Nicephorus Calliſtus* writeth, there are Serpents as thick as beams, in teſtimony whereof their skins have been brought to *Rome*. And therefore it is no marvail, although S. *Auſtine* writing upon the 148. Pſalm, doth ſay, *Dracones magna quædam ſunt animantia, majora non ſunt ſuper terram*: Dragons are certain great beaſts, and there are none greater upon the earth. Neither is it to be thought incredible, that the ſouldiers of *Attilius Regulus* did kill a Dragon which was a hundred and twenty foot long, or that the Dragons in the dens of the Mountain *Atlas*, ſhould grow ſo great that they can ſcarſe move the fore-parts of their body. I am yet therefore to ſpeak of the Dragons in the Mountains *Emodii* or of *Arigia*, or of *Dachinabades*, or the Regions of the Eaſt, or of that which *Auguſtus* ſhewed publiquely to the people of *Rome*, being fifty cubits long; or of thoſe which be in the *Alpes*, which are found in certain Caves of the South-ſides of the hills, ſo that this which hath been ſaid, ſhall ſuffice for the quantity and Countries of Dragons. Beſides, there are other kindes of Dragons which I muſt ſpeak of in order: and firſt of all of the *Epidaurian* Dragons, which is bred no where but in that Countrey, being tame, and of yellow golden colour, wherefore they were dedicated to *Æſculapius*, of whom *Nicander* writeth in this manner.

Stumpſius.

Nunc viridem & nigrum poſt dicta venena Draconem
Aſpice, quem patula fago Phœbeia proles
In gelido Peli nutrivit culmine, juxta
Læta Pelethuniæ quondam declivia vallis.

In Engliſh thus;

After theſe venoms now behold the Dragon black and green,
Nouriſhed by Apollos ſon under a Beech ful broad,
On top of the cold Pelus, as often hath been ſeen,
By fertil vale of Pelethun his ſliding road.

There are likewiſe other kinde of tame Dragons in *Macedonia*, where they are ſo meek, that women feed them, and ſuffer them to ſuck their breaſts like little children their Infants alſo play with them, riding upon them and pinching them, as they would do with Dogs, without any harm, and ſleeping with them in their beds. But among all Dragons, there was none more famous then the Dragon *Python*, or *Pythias*, as the Poets faign, which was bred of the ſlime of the earth, after the flood of *Deucalion*, and ſlain afterwards by *Apollo*, whereof there lyeth this tale; That when *Latona* was with childe by *Jupiter* of *Apollo* and *Diana*, *Juno* reſiſted their birth, but when they were born and laid in the Cradle, ſhe ſent the Dragon *Python* to devour them, *Apollo* being but a young Infant, did kill the Dragon with a dart. But this tale ſeemeth too fabulous and incredible, and therefore they have mended the matter with another device; For they ſay that *Python* by the commandment of *Juno*, did perſecute *Latona* throughout all the world, ſeeking to devour her, ſo as ſhe had no reſt until ſhe came unto her ſiſter *Aſteria*, who received her into *Delos*, where ſhe was ſafely delivered of *Apollo* and *Diana*. Afterward, when the childe was grown up, he ſlew the Dragon in remembrance and revenge of the wrong done to his mother. But the true cauſe of this Hiſtory is delivered by *Pauſanias* and *Macrobius*, to be thus; That *Apollo* killed one *Python*, a very wicked man in *Delphos*, and that the Poets in excuſe of the fact, did faign him to be a Dragon, as aforeſaid. And ſo I ſhall not need to ſay any more of *Python*, except theſe verſes following out of *Ovid* about his generation:

——— ——— Sed te quoq; maxima Python,
Tum genuit populiſq, novis incognite Serpens
Terror eras: tantum ſpatii de monte tenebas.
Hunc Deus arcitenens & nunquam talibus armis
Antè, niſi in damis, capriſque fugacibus uſus:
Mille gravem telis exhauſta pene pharetra
Perdidit effuſo per vulnera nigra veneno.
Neve operis famam poſſet delere vetuſtas,
Inſtituit ſacros celebri certamine ludos
Pythia perdomitæ Serpentis nomine dictos.
Cæruleus tali proſtratus Apolline Python.

Which may be Engliſhed thus;

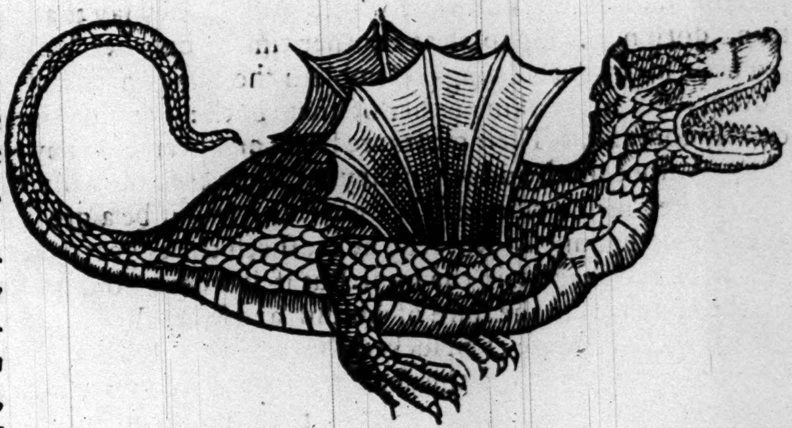
But yet thou ugly Python wert engendered by her, tho
A terror to the new-made-folk, which never erſt had known,
So foul a Dragon in their life ſo monſtrouſly fore-grown,
So great a ground thy poyſon'd paunch did underneath thee hide,
The God of ſhooting, who no where before that preſent tide
Thoſe kinde of weapons put in uſe but at the ſpeckled Deer,
Or at the Roes ſo light of foot, a thouſand ſhafts well neer

Did on the hideous Serpent ſpend, of which there was not one
But forced forth the venomd-bloud, along his ſides to gone:
So that his quiver almoſt void, he naild him to the ground,
And did him nobly at the laſt by force of ſhot confound.
And leſt that time ſhould of this work deface the worthy fame,
He did ordain in minde thereof a great and ſolemn game,
Which of the Serpent that he ſlew, of Python *bare the name.*

Of the *Indian* Dragons there are alſo ſaid to be two kindes, one of them fenny, and living in the mariſhes, which are ſlow of pace and without combes on their heads like females: the other in the Mountains, which are more ſharp and great, and have combes upon their head, their backs being ſomewhat brown, and all their bodies leſſe ſcaly then the other. When they come down from the Mountains into the plain to hunt, they are neither afraid of mariſhes nor violent waters, but thruſt themſelves greedily into all hazards and dangers: and becauſe they are of longer and ſtronger bodies then the Dragons of the fens, they beguile them of their meat, and take away from them their prepared booties. Some of them are of a yellowiſh fiery colour, having alſo ſharp backs like ſaws; theſe alſo have beards, and when they ſet up their ſcales they ſhine like ſilver. The apples of their eyes are precious ſtones, and as bright as fire, in which there is affirmed to be much vertue againſt many diſeaſes, and therefore they bring unto the Hunters and killers of Dragons no ſmall gain, beſides the profit of their skin, and their teeth: and they are taken when they deſcend from the Mountains into the Valleys to hunt the Elephants, ſo as both of them are kill'd together by the Hunters.

Their members are very great, like unto the members of the greateſt Swine, but their bodies are leaner, flexibly turning to every ſide, according to the neceſſity of motion: Their ſnouts are very ſtrong, reſembling the greateſt ravening Fiſhes; they have beards of a yellow golden colour, being full of briſtles: and the Mountain-dragons commonly have more deep eye-lids then the Dragons of the Fens. Their aſpect is very fierce and grim, and whenſoever they move upon the earth, their eyes give a ſound from their eye-lids, much like unto the tinckling of Braſſe, and ſometimes they boldly venture into the Sea and take Fiſhes.

Of the WINGED DRAGON.



There be ſome Dragons which have wings and no feet, ſome again have both feet and wings, and ſome neither feet nor wings, but are only diſtinguiſhed from the common ſort of Serpents by the combe growing upon their heads, and the beard under their cheeks.

Saint *Auguſtine* ſaith, that Dragons abide in deep Caves and hollow places of the earth, and that ſometimes when they perceive moiſtnes in the air, they come out of their holes, & beating the air with their wings, as it were with the ſtrokes of Oars, they forſake the earth and flie aloft: which wings of theirs are of a skinny ſubſtance, and very voluble, and ſpreading themſelves wide, according to the quantity and largeneſſe of the Dragons body, which cauſed *Lucan* the Poet in his verſes to write in this manner following:

Vos quoq; qui cunctis innoxia numina terris
Serpitis, aurato nitidi fulgore Dracones,
Peſtiferos ardens facit Africa: ducitis altum
Aëra cum pennis, &c. ————

In Engliſh thus;

You ſhining Dragons creeping on the earth,
Which fiery Africk holds with skins like gold,
Yet peſtilent by hot infecting breath:
Mounted with wings in th' air we do behold.

The Inhabitants of the Kingdom of *Georgia*, once called *Media*, do ſay that in their Vallies there are divers Dragons which have both wings and feet, and that their feet are like unto the feet of Geeſe. Beſides, there are Dragons of ſundry colours, for ſome of them are black, ſome red, ſome of an aſh-colour, ſome yellow, and their ſhape and outward appearance very beautiful, according to the verſes of *Nicander*.

Formoſa apparet ſpecies pulchro illius ore,
Triplice conſpicui ſe produnt ordine dentes,
Magna ſub egregia ſcintillant lumina fronte,
Tinctaq; felle tegunt imum palearia mentum.

Which may be Engliſhed thus;

Their form of preſence outwardly appears
All beautiful, and in their goodly mouth
Their teeth ſtand double, all one within another:
Conſpicuous order ſo doth bewray the truth.
Under their brows, which are both great and wide,
Stand twinckling eyes, as bright as any ſtar,
With red galls tincture are their dewlaps dyed,
Their chin or under-chap to cover far.

Gillius, *Pierius*, and *Grevinus*, following the authority of this Poet, do affirm that a Dragon is of a black colour, the belly ſomewhat green, and very beautiful to behold, having a treble row of teeth in their mouths upon every jaw, and with moſt bright and cleer ſeeing eyes, which cauſed the Poets to faign in their writings, that theſe Dragons are the watchfull keepers of Treaſures. They have alſo two dewlaps growing under their chin, and hanging down like a beard, which are of a red colour: their bodies are ſet all over with very ſharp ſcales, and over their eyes ſtand certain flexible eye-lids. When they gape wide with their mouth, and thruſt forth their tongue, their teeth ſeem very much to reſemble the teeth of wilde Swine: And their necks have many times groſſe thick hair growing upon them, much like unto the briſtles of a wilde Boar.

Their mouth, (eſpecially of the moſt tameable Dragons) is but little, not much bigger then a pipe, through which they draw in their breath, for they wound not with their mouth, but with their tails only beating with them when they are angry. But the *Indian*, *Æthiopian*, and *Phrygian* Dragons, have very wide mouths, through which they often ſwallow in whole fowls and beaſts. Their tongue is cloven as if it were double, and the Inveſtigators of nature do ſay, that they have fifteen teeth of a ſide. The males have combes on their heads, but the females have none, and they are likewiſe diſtinguiſhed by their beards.

They have moſt excellent ſenſes both of ſeeing and hearing, and for this cauſe their name *Drakon* cometh of *Derkein*, and this was one cauſe why *Jupiter* the Heathens great God, is ſaid to be metamorphoſed into a Dragon, whereof their flyeth this tale: when he fell in love with *Proſerpina*, he raviſhed her in the likeneſſe of a Dragon, for he came unto her and covered her with the ſpires of his body; and for this cauſe the people of *Sabazii* did obſerve in their myſteries or ſacrifices the ſhape of a Dragon rowled up within the compaſſe of his ſpires: ſo that as he begot *Ceres* with childe in the likeneſſe of a Bull, he likewiſe deluded her daughter *Proſerpina* in the likeneſſe of a Dragon; but of theſe tranſmutations we ſhall ſpeak more afterwards, and I think the vanity of theſe took firſt ground from the *Africans*, who believe that the original of Dragons took beginning from the unnatural conjunction of an Eagle and a ſhe Wolf. And ſo they ſay that the Wolf growing great by this conception, doth not bring forth as at other times, but her belly breaketh and the Dragon cometh out, who in his beak and wings reſembleth the Dragon his father, and in his feet and tail, the Wolf his mother, but in the skin neither of them both: but this kinde of fabulous generation is already ſufficiently confuted. Their meats are fruits and herbs, or any venomous creature, therefore they live long without food, and when they eat, they are not eaſily filled. They grow moſt fat by eating of egges, in devouring whereof they uſe this Art, if it be a great Dragon, he ſwalloweth it up whole, and then rowleth himſelf, whereby he cruſheth the egges to pieces in his belly, and ſo nature caſteth out the ſhells, and keepeth in the meat. But if it were a young Dragon, as if it be a Dragons whelp, he taketh the egge within the ſpire of his tail, and ſo cruſhed it hard, and holdeth it faſt, untill his ſcales open the ſhell like a knife then ſucketh he out of the place opened all the meat of the egg. In like ſort do the young ones pull off the feathers from the fowls which they eat, and the old ones ſwallow them whole, caſting the feathers out of their bellies again.

The Dragons of *Phrygia* when they are hungry, turn themſelves towards the Weſt, and gaping wide, with the force of their breath do draw the Birds that flie over their heads into their throats, which ſome have thought is but a voluntary lapſe of the Fowls, to be drawn by the breath of the Dragon, as by a thing they love, but it is more probable, that ſome vaporous and venomous breath is ſent up from the Dragon to them, that poyſoneth and infecteth the air about them, whereby their ſenſes are taken from them, and they aſtoniſhed fall down into his mouth. But if it fortune the Dragons finde not food enough to ſatisfie their hunger, then they hide themſelves until the people be returned from the market, or the heard-men bring home their flocks, and upon a ſudden they devour either Men or Beaſts, which come firſt to their mouths: then they go again and hide themſelves in their dens and hollow Caves of the earth, for their bodies being exceeding hot, they very ſeldom come out of the cold earth, except to ſeek meat and nouriſhment. And becauſe they live only in the hotteſt Countries, therefore they commonly make their lodgings neer unto the waters, or elſe in the coldeſt places among the rocks and ſtones.

They greatly preſerve their health (as *Ariſtotle* affirmeth) by eating of wilde Lettice, for that they make them to vomit, and caſt forth of their ſtomach whatſoever meat offendeth them, and they are moſt ſpecially offended by eating of Apples, for their bodies are much ſubject to be filled with winde, and therefore they never eat Apples, but firſt they eat wilde Lettice. Their ſight alſo (as *Plutarch* ſaith) doth many times grow weak and feeble, and therefore they renew and recover the ſame again by rubbing their eyes againſt Fennel, or elſe by eating of it.

Their age could never yet be certainly known, but it is conjectured that they live long, and in great health, like to all other Serpents, and therefore they grow ſo great. They do not only live on the land, as we have ſaid already, but alſo ſwim in the water, for many times they take the Sea in *Æthiopia*, four or five of them together, folding their tails like hurdles, and holding up their heads, ſo ſwim they over to ſeek better food in *Arabia*.

We have ſaid already, that when they ſet upon Elephants, they are taken and killed of men : now the manner how the *Indians* kill the Mountain Dragons is thus; they take a garment of Scarlet, and picture upon it a charm in golden letters; this they lay upon the mouth of the Dragons den, for with the red colour and the gold, the eyes of the Dragon are overcome, and he falleth aſleep, the *Indians* in the mean ſeaſon watching, and muttering ſecretly words of Incantation ; when they perceive he is faſt aſleep, ſuddenly they ſtrike off his neck with an Ax, and ſo take out the balls of his eyes, wherein are lodged thoſe rare and precious ſtones which contain in them vertues unutterable, as hath been evidently proved by one of them, that was included in the Ring of *Gyges*. Many times it falleth out, that the Dragon draweth in the *Indian* both with his Ax and Inſtruments into his den, and there devoureth him, in the rage whereof, he ſo beateth the Mountain that it ſhaketh. When the Dragon is killed, they make uſe of the skin, eyes, teeth, and fleſh ; as for the fleſh, it is of a vitrial or glaſſie colour, and the *Æthiopians* do eat it very greedily, for they ſay it hath in it a refrigerative power. And there be ſome which by certain inchanting verſes do tame Dragons, and rideth upon their necks, as a man would ride upon a Horſe, guiding and governing them with a bridle.

Now becauſe we have already ſhewed, that ſome Dragons have wings, leſt it ſhould ſeem uncredible, as the fooliſh world is apt to believe no more then they ſee, I have therefore thought good to add in this place, a particular relation of the teſtimonies of ſundry learned men, concerning theſe winged Serpents or Dragons. Firſt of all *Megaſthenes* writeth, that in *India* there be certain flying Serpents, which hurt not in the day, but in the night time, and theſe do render or make a kinde of urine, by the touching whereof, all the parts of mortal creatures do rot away. And there is a Mountain which divideth aſunder the Kingdom of *Narſinga* from *Alabaris*, wherein be many winged Serpents ſitting upon trees, which they ſay poyſon men with their breath. There be many peſtilent winged Serpents which come out of *Arabia* every year by troups into *Egypt*, theſe are deſtroyed by a certain black Bird called *Ibis*, who fighteth with them in the defence of that Countrey where ſhe liveth, ſo that there lie great heaps of them many times deſtroyed upon the earth by theſe Birds, whoſe bodies may be there viſibly ſeen to have both wings and legs, and their bones being of great quantity and ſtature, remain unconſumed for many years after. Theſe kinde of Serpents or Dragons, covet to keep about Trees of Frankincenſe which grow in *Arabia*, and when they are driven away from thence with the fume or ſmoak of Stirax, then they flie (as is aforeſaid) into *Egypt*, and this is to be conſidered, that if it were not for this Stirax, all that Countrey would be conſumed with Dragons.

Ælianus.
Scaliger.

Ælianus.
Herodotus.

Neither have we in *Europe* only heard of Dragons and never ſeen them, but alſo even in our own Country, there have (by the teſtimony of ſundry Writers) divers been diſcovered and killed. And firſt of all, there was a Dragon or winged Serpent brought unto *Francis* the *French* King, when he lay at *Sancton*, by a certain Countreyman, who had ſlain the ſame Serpent himſelf with a Spade, when it ſet upon him in the fields to kill him. And this thing was witneſſed by many learned and credible men which ſaw the ſame : and they thought it was not bred in that Countrey, but rather driven by the winde thither from ſome forain Nation. For *France* was never known to breed any ſuch Monſters. Among the *Pyrenes* alſo, there is a cruel kinde of Serpent, not paſt four foot long, and as thick as a mans arm, out of whoſe ſides grow wings much like unto griſtles.

Brodeus.
Scaliger.

Geſner alſo ſaith, that in the year of our Lord 1543. there came many Serpents both with wings and legs into the parts of *Germany* neer *Stiria*, who did bite and wound many men incurably. *Cardan* alſo deſcribeth certain Serpents with wings, which he ſaw at *Paris*, whoſe dead bodies were in the hands of *Gulielmus Muſicus*, he ſaith that they had two legs and ſmall wings, ſo that they could ſcarce flie, the head was little, and like to the head of a Serpent, their colour bright, and without hair or feathers, the quantity of that which was greateſt, did not exceed the bigneſſe of a Cony, and it is ſaid they were brought out of *India*. Beſides, a further confirmation of theſe Beaſts, there have been noted in all ages; for it is written in the *Roman* Chronicles, the times of their apparition and manifeſtation.

Crinitus.

When the River of *Tiber* over-flowed above the banks, then were many Serpents diſcovered, and many Dragons, as in the time of *Mauritius* the Emperor, at what time a Dragon came along by the City of *Rome*, upon the waters in the ſight of all men, and ſo paſſed to the Sea : after which prodigy, there followed a great mortal peſtilence. In the year 1499. the 26. day of *May*, there came a Dragon to the City of *Lucerne*, which came out of the Lake through *Ruſa*, down along the River, many people of all ſorts beholding the ſame.

Stumpſius.

There have been alſo Dragons many times ſeen in *Germany*, flying in the air at mid-day, and ſignifying great and fearful fires to follow, as it happened neer to the City called *Niderburge*, neer to the ſhore of the *Rhene*, in a marvellous clear Sun-ſhine day, there came a Dragon three times ſucceſſively together in one day, and did hang in the air over a Town called *Sanctogoarin*, ſhaking his tail over that Town every time : it appeared viſibly in the ſight of many of the Inhabitants, and afterwards it came to paſſe, that the ſaid Town was three times burned with fire, to the great harm and undoing of all the people dwelling in the ſame : for they were not able to make any reſiſtance to quench the fire, with all the might, Art, and power that they could raiſe. And it was further obſerved, that about that time there were many Dragons ſeen waſhing themſelves in a certain Fountain or Well neer the Town, and if any of the people did chance to drink of the water of that Well, their bellies did inſtantly begin to ſwell, and they dyed as if they had been poyſoned. Whereupon it was publiquely decreed, that the ſaid Well ſhould be filled up with ſtones, to the intent that never any man ſhould afterwards be poyſoned with that water ; and ſo a memory thereof was continued, and theſe things are written by *Juſtinus Goblerus*, in an Epiſtle to *Geſner*, affirming that he did not write faigned things, but ſuch things as were true, and as he had learned from men of great honeſty and credit, whoſe eyes did ſee and behold both the Dragons, and the miſhaps that followed by fire.

When the body of *Cleomenes* was crucified, and hung upon the Croſſe, it is reported by them that were the watch-men about it, that there came a Dragon and did winde it ſelf about his body, and with his head covered the face of the dead King, oftentimes licking the ſame, and not ſuffering any Bird to come neer and touch the carkaſſe. For which cauſe there began to be a reverent opinion of divinity attributed to the King, until ſuch time as wiſe and prudent men, ſtudious of the truth, found out the true cauſe hereof. For they ſay that as Bees are generated out of the body of Oxen, and Drones of Horſes, and Hornets of Aſſes : ſo do the bodies of men ingender out of their marrow a Serpent, and for this cauſe the Ancients were moved to conſecrate the Dragon to Noble-ſpirited men, and therefore there was a monument kept of the firſt *Africanus*, becauſe that under an Olive planted with his own hand, a Dragon was ſaid to preſerve his ghoſt.

But I will not mingle fables and truths together, and therefore I will reſerve the moral diſcourſe of this Beaſt unto another place ; and this which I have written, may be ſufficient to ſatisfie any reaſonable man, that there are winged Serpents and Dragons in the world. And I pray God that we never have better arguments to ſatisfie us, by his corporal and lively preſence in our Countrey, leſt ſome great calamity follow thereupon. Now therefore we will proceed to the love and hatred of this Beaſt, that is obſerved with man and other creatures.

And firſt of all, although Dragons be natural enemies to men, like unto all other Serpents, yet many times (if there be any truth in ſtory) they have been poſſeſſed with extraordinary love, both to men, women and children, as may appear by theſe particulars following. There was one *Aleva* a *Theſſalian* Neatherd, which did keep Oxen in *Oſſa*, hard by the Fountain *Hemonius*, there was a Dragon fell in love with this man, for his hair was as yellow as any gold, unto him for his hair did this Dragon often come, creeping cloſely as a Lover to his Love : and when he came unto him, he would lick his hair and face ſo gently, and in ſo ſweet a manner, as the man profeſſed he never felt the like, ſo as without all fear he converſed with him, and as he came, ſo would he go away again, never returning to him empty, but bringing ſome one gift or other, ſuch as his nature and kinde could lay hold on.

Ælianus.

There was a Dragon alſo which loved *Pindus* the ſon of *Macedo* King of *Emathia* : This *Pindus* having many Brothers moſt wicked and lewd perſons, and he only being a valiant man of honeſt diſpoſition, having likewiſe a comely and goodly perſonage, underſtanding the treachery of his Brethren againſt him, bethought himſelf how to avoid their hands and tyranny. Now foraſmuch as he knew that the Kingdom which he poſſeſſed, was the only mark they all ſhot at, he thought it better to leave that to them, and ſo to rid himſelf from envy, fear, and peril, then to embrew his hand in their bloud, or to loſe his life and Kingdom both together. Wherefore he renounced and gave over the government, and betook himſelf to the exerciſe of hunting, for he was a ſtrong man, fit to combate with wilde Beaſts, by deſtruction of whom, he made more room for many men upon the earth, ſo that he paſſed all his days in that exerciſe. It hapned on a day that he was hunting of a Hind-calf, and ſpurring his Horſe with all his might and main in the eager perſuit thereof, he rode out of the ſight of all his company, and ſuddenly the Hind-calf leaped into a very deep Cave, out of the ſight of *Pindus* the Hunter, and ſo ſaved himſelf. Then he alighted from his Horſe, and tyed him to the next Tree, ſeeking out as diligently as he could for a way into the Cave, whereinto the Hind-calf had leaped : and when he had looked a good while about him, and could finde none, he heard a voyce ſpeaking unto him, and forbidding him to touch the Hind-calf, which made him look about again, to ſee if he could perceive the perſon from whom the voyce proceeded, but eſpying none, he grew to be afraid, and thought that the voyce proceeded from ſome other greater cauſe, and ſo leaped upon his Horſe haſtily, and departed again to his fellows. The day after he returned to the ſame place, and when he came thither, being terrified with the remembrance of the former voyce, he durſt not enter into the place, but ſtood there doubting and wondering with himſelf, what Shepheards or Hunters, or other men might be in that place to diſwarn him from his game, and therefore he went round about to ſeek for ſome, or to learn from whence the voyce proceeded. While he was thus ſeeking, there appeared unto him a Dragon of a great ſtature, creeping upon the greateſt part of his body, except his neck and head lifted up a little, and that little was as high as the ſtature of any man can reach, and in this faſhion he made toward *Pindus*, who at the firſt ſight was not a little afraid of him, but yet did not run away, but rather gathering his wits together, remembred that he had about him Birds, and divers parts of Sacrifices, which inſtantly he gave unto the Dragon, and ſo mitigated his fury by theſe gifts, and as it were with a royal feaſt, changed the cruel nature of the Dragon into kinde uſage. For the Dragon being ſmoothed over with theſe giſts,& as it were overtaken with the liberality of *Pindus*,was contented to forſake the old place of his habitation,and to go away with him. *Pindus* alſo being no leſs glad of the company of the Dragon, did daily give unto him the greateſt part of his hunting, as a deſerved price and ranſome of his life, and conqueſt of ſuch a Beaſt. Neither was he unrequited for it, for Fortune ſo favoured his game, that whether he hunted fowls of the air,or beaſts of the earth,he ſtill obtained and never miſſed. So that his fame for hunting procured him more love and honor, then ever could the Imperial Crown of his Countrey. For all young men deſired to follow him, admiring his goodly perſonage and ſtrength , the Virgins and Maids falling in love, contended among themſelves who ſhould marry him : the wives forſaking their husbands, contrary to all womanly modeſty, rather deſired his company then the ſociety of their husbands,or to be preferred among the number of the Goddeſſes. Only his Brethren inraged againſt him, ſought all means to kill and deſtroy him. Therefore they watched all opportunities, lying in continual ambuſh where he hunted to accompliſh their accurſed enterpriſe, which at laſt they obtained : for as he followed the game, they encloſed him in a narrow ſtraight neer to a Rivers ſide, where he had no means to avoid their hands, they and their company being many, and he alone, wherefore they drew out their ſwords and ſlew him. When he ſaw no remedy but death, he cryed out aloud for help, whoſe voyce ſoon came to the ears of the watchful Dragon, (for no Beaſt heareth or ſeeth better) out he cometh from his den , and finding the murtherers ſtanding about the dead body, he preſently ſurprized and killed them, ſo revenging the quarrel of *Pindus*, and then fell upon the dead body of his friend , never forſaking the cuſtody thereof, until the neighbours adjoyning to the place, taking knowledge of the fact, came to bury the bodies. But when they came and ſaw the Dragon among them, they were afraid , and durſt not come neer, but ſtood afar off, conſulting what to do ; till at laſt they perceived that the Dragon began to take knowledge of their fear , who with an admirable curteſie of nature, perceiving their mourning and lamentation for their dead friend, and withall, their abſtinence from approaching to execute his exequies, or funerals, began to think that he might be the cauſe of this their terror, and far ſtanding off from the dead bodies, wherefore he departed, taking his farewell of the body which he loved, and ſo gave them leave by his abſence, to beſtow upon him an honourable burial, which they performed accordingly, and the River adjoyning, was named by the name of *Pindus-death*.

By which ſtory may appear,that theſe ſavage Dragons are made loving and tame to men, by good turns and benefits beſtowed upon them,for there is no nature which may not be overcome by kindeneſſe. And yet I may not leave this matter thus, nor from theſe two examples alone, conclude the practiſe and poſſibility of love betwixt Men and Dragons ; I will therefore add ſome three or four examples more.

There was a Dragon the lover of *Aetholis* (as *Plutarch* writeth) who came unto her every night, and did her body no harm, but gently ſliding over her, played with her till morning,then alſo would he depart away aſſoon as light appeared, that he might not be eſpyed. The Maidens friends came to the knowledge hereof, and ſo removed her far away, to the intent the Dragon might come no more at her: and thus they remained aſunder a great while, the Dragon earneſtly ſeeking for the Maiden, wandered far and neer to finde her out. At laſt he met with her, and not ſaluting her gently as he was wont, flew upon her, binding her hands down with the ſpire of his body, hiſſing ſoftly in her face,and beating gently with his tail her back-parts, as it were taking a moderate revenge upon her, for the neglect of his love by her long abſence.

Gillius.

Another like ſtory unto this is reported by *Ælianus*, of a great Dragon which loved a fair Woman, beloved alſo of a fair Man, the Woman oftentimes did ſleep with this Dragon, but not ſo willingly as with the Man : wherefore ſhe forſook the habitation of her place for a month , and went away where the Dragon could not find her,thinking that her abſence might quench his deſire.But he came often to the place where he was wont to meet with the woman, and not finding her, returned quietly back again,and came again another time : at laſt he grew ſuſpicious,and like a lover failing in his expectation, grew very ſorrowful, and ſo continued till the month was exſpired, every night viſiting the accuſtomed place. At laſt the woman returned, and the Dragon preſently met with her, and in an amorous faſhion, full of ſuſpicion and jealouſie, winding about her body, did beat her as you have heard in the former ſtory : and this (ſaith *Ælianus*) happened in *Judea*, in the days of *Herod* the King.

There was a little Dragon-whelp bred in *Arcadia*,and brought up familiarly with a little boy from his infancy, until the Boy became a young Man, and the Dragon alſo became of great ſtature , ſo that one of them loved another ſo well as Man and Beaſt could love together, or rather two playfellows from the Cradle. At laſt the friends of the Boy ſeeing the Dragon grow ſo great in ſo ſhort a ſpace, began to be ſuſpicious of him ; whereupon they took the bed wherein the Boy and the Dragon were lodged, and carryed the ſame into a far remote place of Woods and Wilderneſſe, and there ſet down the bed with the Boy and the Dragon together. The boy after a little while returned, and came home again to his friends ; the Dragon wandered up and down in the Woods,feeding upon herbs and poyſon,according to his nature,and never more cared for the habitation of men,but reſted contented with a ſolitary life.In the length of time it came to paſſe that the boy grew to be a perfect man, and the Dragon alſo remained in the Wood,and although abſent one from the other , yet mutually loving as well as ever. It hapned that this young man travelled through that place where the Dragon was lodged, and fell among theeves, when the young man ſaw their ſwords about his ears, he cryed out,and the Dragons den being not far off, his cry came to the Dragons ears, who inſtantly knowing the voyce of his play-fellow,anſwered the ſame with another, at whoſe hiſſing the theeves grew afraid, and began to run away, but their legs could not carry them ſo faſt, as to eſcape the Dragons teeth and claws; for he came ſpeedily to releaſe his friend,and all the theeves that he could find, he put to cruel death,then did he accompany his friend out of the place of peril, and returned back again to his den, neither remembering wrath, for that he was expoſed to the Wilderneſſe, and there left by his play-fellow, nor yet like perverſe men, forſaking their old friend in danger.

Suetonius.

They that deſire to read more of this ſubject, ſhall finde ſtore of examples in *Ælianus* his ſixt and thirteen Books. To conclude, when *Meſſalina* the wife of *Claudius*, did ſend certain men to take away the life of *Nero*, who was a rival of *Britannicus*; it is ſaid that when they had him in their hands to ſtrangle him, a Dragon appeared out of the earth, or floor of the chamber, and did ſo terrifie theſe hangmen, that they ran away and ſpared *Neroes* life. By which example, another example of piety in Dragons is obſerved.

Again, *Telephus* ignorantly lying with his mother, had committed inceſt with her, had not a Dragon by divine providence come and parted them aſunder: therefore *Draconi ſimilis eſt virtus indagatrix quæ diligenter omnia perſcrutatur, rimaturq; ſtudioſiſſimè*, the vertue of diſcretion or perfect knowledge, is like a Dragon,which diligently ſearcheth all things,and ſtudiouſly looketh into every chink: ſo did this Dragon preſerve the chaſtity of the mother and the ſon, when they ignorantly and in the dark had defiled each other, but for his appearance and demonſtration. I will add but this one example more of their love of chaſtity in men and women.

In *Lavinium* there was a great holy Wood, neer unto which ſtood a Temple of *Juno*, in that wood there was a great deep den of a Dragon, unto the which Dragon the Virgins came every year being blinde-folded with clowts, and carrying Marchpanes in their hands: When they entred the Wood, there was a certain ſpirit (as it was ſaid) without offence did lead them to the den of the Dragon, and ſo every one of the Virgins did ſeverally offer up their Marchpanes to the Dragon: the Dragon received the Marchpane at the hand of every pure Virgin and unſpotted, but if they were defiled, and held only the name of Virgins, then the Dragon refuſed the Marchpane, and therefore they were all examined at their coming forth, that thoſe which had loſt their Virginity might be puniſhed by the Law. And by this ſtory, (although none but Heathens will believe it to be true, becauſe it is a fable meerly invented to defend Idolatry, which with my ſoul and ſpirit I do deteſt) yet I may collect thus much as a moral out of a fable, that Dragons in ancient time did honor Virginity. And thus ſeeing they neither love, nor are beloved of any other creature, I will here leave to talk of their love and friendſhip, and paſſe on to their hatred and adverſaries.

The examples before expreſſed being all extraordinary and beſide nature, do not conclude, but that there is an ordinary hatred betwixt Men and Dragons, and therefore in the diſcourſe of their enemies, Men muſt have the firſt place, as their moſt worthy adverſary, for both Dragons have periſhed by Men, and Men by Dragons, as may appear by theſe ſtories following. When the Region of *Helvetia* began firſt to be purged from noyſome Beaſts, there was a horrible Dragon found neer a Countrey Town called *Wilſer*, who did deſtroy all men and beaſts that came within his danger in the time of his hunger, inſomuch that that Town and the fields there to adjoyning, was called *Dedwiler*, that is, a Village of the Wilderneſſe, for all the people and Inhabitants had forſaken the ſame, and fled to other places.

Stumpſius.

There was a man of that Town whoſe name was *Winckelriedt*, who was baniſhed for man-ſlaughter, this man promiſed if he might have his pardon, and be reſtored again to his former Inheritance, that he would combate with that Dragon,and by Gods help deſtroy him: which thing was granted unto him with great joyfulneſſe. Wherefore he was recalled home, and in the preſence of many people went forth to fight with the Dragon, whom he ſlew and overcame, whereat for joy he lifted up his ſword imbrued in the Dragons bloud, in token of victory, but the bloud diſtilled down from his ſword upon his body, and cauſed him inſtantly to fall down dead. And thus this noble Conqueror, a man worthy to be remembred in all ages and Nations, who had ſtrength to kill the Dragon being alive, yet had no power to reſiſt the venom of his bloud, he being dead. But had it not been that his hand had been before imbrewed in the bloud of a man, I do not believe that the bloud of a Dragon could have fallen ſo heavy upon him. But this is the judgement of GOD, either to puniſh murder in the ſame kinde, or elſe to teach us, that we ſhould not rejoyce in our own merits, leſt God ſee it and be angry. For our Saviour Chriſt forbade his Diſciples that they ſhould rejoyce that the Devils were ſubject to them; and therefore much leſſe may we poor creatures rejoyce for overcoming men or beaſts.

And yet one thing more is to be conſidered in the death of this man, who was baniſhed for killing a man, and was pardoned for killing a Dragon, and yet killed by the Dragon after the Dragon was ſlain. Thus bloud was the ſin becauſe it brought death, & death again brought bloud to be the revenger of the firſt, that the bloud of man might be waſhed away with the bloud of man, and the bloud of a Serpent coming betwixt. And thus I may truly ſay as the Chriſtian Poet ſaith in another caſe, *Sanguine ſuccrevit, ſanguine finis erit*, as it grew, ſo ſhall it end in bloud.

Ariſtotle.

In the days of *Philip* King of *Macedon*, there was a way into a Mountain of *Armenia*, over which the King had prayed, that never man might go but he might die: wherefore *Socrates*, to try the effect of the Kings prayer, ſet his Optick Philoſophical glaſſe that he might ſee what was in that way, and preſently he perceived two great Dragons, who coming out of their dens, did infect the air thereabouts with a peſtilent evaporation of their own breath. This he declared to the King, who for the revocation of his own prayer, armed divers men to go out againſt them and kill them: who likewiſe performed the ſame, and ſo cleared the way from that annoyance. And thus we ſee another ſtory of Dragons ſlain by men.

Hereunto may be added, how *Hercules*, when he was a childe in his cradle, ſlew two Dragons, as *Pindarus* relateth. And the *Corcyreans* did worſhip *Diomedes* for killing of a Dragon. *Donatus* a holy Biſhop in *Germany*, finding a Dragon to lie ſecretly hid beſide a bridge, killing Men, Oxen, Horſe, Sheep, and Goats, he came boldly unto him in the name of Chriſt, and when the Dragon opened his mouth to devour him, the holy Biſhop ſpitting into his mouth killed him.

When *Orpheus* was in hawking, and while he intended his ſport, ſuddenly a Dragon ſet upon him, but his hawking Spaniels or Dogs releaſed him of that Danger, for they tore the Dragon in pieces. Many ſuch other ſtories I could relate, but I ſpare them here, becauſe I have handled them in the beginning of this ſtory: and ſo I paſſe over the ſlaughter of Dragons by Men, and come to the ſlaughter of Men by Dragons, which are briefly theſe that follow.

Petrus Damianus declareth of a certain husband-man, who riſing early in the morning, and travelling by the way ſide, ſaw a great Dragon lie ſtill upon the earth without motion, he being weary, thought him to be a trunck of ſome tree, wherefore he ſate down upon him, & the beaſt endured him a little while, but at the laſt he turned his head in anger, and ſwallowed him up. After that the *Grecians* faigned as though they would go away from *Troy*, and *Sinon* the Traytor was received by the *Trojans* into the City, there were two Dragons which ſlew the ſons of *Laocoon* as they landed in the Iſland *Porcy*, *Caribea*, and *Chalidnæ*, which is thus deſcribed by *Virgil*;

At gemini lapſu delubra ad ſumma Dracones
Effugiunt, ſævaq; petunt Tritonidos arcem,
Sub pedibuſque Deæ clypeique ſub orbe teguntur:
Tum verò tremefacta novus per pectora cunctis
Inſinuat pavor, & ſcelus expendiſſe merentem
Laocoonta ferunt, ſacrum qui cuſpide robur
Læſerit, &c.——

Which may be Engliſhed thus;

Two Dragons ſlide, and to the top of Temple flie,
Making their way unto the fort of Tritons feirce,
Under the Goddeſſe feet and ſhield, in circle down they lie,
What fear did mortal breaſt poſſeſſe then cannot I rehearſe:
For then Laocoon did begin to think on's former ſin,
When he did harm the ſacred thing by thruſting ſpear within.

About the Temple of *Jupiter Nemeus*, there is a Grove of Cypreſſe trees, among which there is a place wherein a Dragon did deſtroy *Ophelles*, when he was laid under a green buſh by his Nurſe. There is a proverb, *Bonos viros vel à mure morderi, malis ne Draconem dentes audere admoliri*: that is to ſay, every Mouſe will bite a good man, but evill men are not touched with the teeth of Dragons.

Alciatus hath a pretty Emblem, whoſe title is, *Ex arduis perpetuum nomen*, from difficult things and great labours, ariſeth immortal fame: wherein he pictureth a Dragon following young Sparrows to take and eat them. His verſes in *Latine* are theſe;

Crediderat platani ramis ſua pignora paſſer.
Et bene, ni ſævo viſa Dracone forent.
Clutiit hic pullos omnes, miſeramq; parentem
Saxeus & tali dignus obire nece.
Hæc niſi mentitur Chalcas, monimenta laboris
Sunt longi, cujus fama perennis eat.

Which may be thus Engliſhed;

To Plantain-leaves the Sparrow did her young commit,
And ſafe enough, had not the Dragon them eſpyed,
He eat the young ones all, the dam with ſons deſtroyd,
Well worthy ſuch a death, of life to be denyed;
This is by Chalcas ſaid, a type of labour long,
Whoſe fame eternal lives in every tongue.

There be certain beaſts called *Dracontopides*, very great and potent Serpents, whoſe faces are like to the faces of Virgins, and the reſidue of their body like to Dragons. It is thought that ſuch a one was the Serpent that deceived *Eve*, for *Beda* ſaith, it had a Virgins countenance, and therefore the woman ſeeing the likeneſſe of her own face, was the more eaſily drawn to believe it: into the which when the Devil had entred, they ſay he taught it to cover the body with leaves, and to ſhew nothing but the head and face. But this fable is not worthy to be refuted, becauſe the Scripture it ſelf doth directly gainſay every part of it, For firſt of all it is called a Serpent, and if it had been a Dragon, *Moſes* would have ſaid ſo, and therefore for ordinary puniſhment, God doth appoint it to creep upon the belly, wherefore it is not likely that it had either wings or feet. Secondly, it was unpoſſible and unlikely, that any part of the body was covered or concealed from the ſight of the woman, ſeeing ſhe knew it directly to be be a Serpent, as afterward ſhe confeſſed before GOD and her husband.

There be alſo certain little Dragons called in *Arabia*, *Veſga*, and in *Catalonia*, Dragons of houſes, theſe when they bite, leave their teeth behinde them, ſo as the wound never ceaſeth ſwelling as long as the teeth remain therein, and therefore for the better cure thereof, the teeth are drawn forth, and ſo the wound will ſoon be healed. And thus much for the hatred betwixt Men and Dragons, now we will proceed to other creatures.

The greateſt diſcord is betwixt the Eagle and the Dragon, for the Vultures, Eagles, Swans and Dragons, are enemies one to another. The Eagles when they ſhake their wings, make the Dragons afraid with their ratling noiſe, then the Dragon hideth himſelf within his den, ſo that he never fighteth but in the air, either when the Eagle hath taken away his young ones, and he to recover them flyeth aloft after her, or elſe when the Eagle meeteth him in her neſt, deſtroying her Egges and young ones: for the Eagle devoureth the Dragons and little Serpents upon earth, and the Dragons again and Serpents do the like againſt the Eagles in the air. Yea many times the Dragon attempteth to take away the prey out of the Eagles talons, both on the ground and in the air, ſo that there ariſeth betwixt them a very hard and dangerous fight, which is in this manner deſcribed by *Nicander*.

Hunc petit inviſum magni Jovis armiger hoſtem,
Cumque genis parat acre ſuis ex æthere bellum:
Paſcentem in ſilvis quam primum viderit illum,
Quod totos ferus is nidos cum mitibus ovis,
Et ſimul ipſa terens, & vaſtans pignora perdat.
Non timet hoc Serpens, imò quodam impete dumis
Proſiliens, ipſamque aquilam, leporemque tenellum
Extrahit ex rapidis vi fraudeque fortior uncis.
Cauta malum declinat avis, fit ibi aſpera pugna,
Ut queat extortam victor ſibi tollere prædam.
Sed fruſtra elapſam, & volitantem hinc inde volucrem
Inſequitur, longos ſinuum contractus in orbes,
Obliquoque levans ſurſum ſua lumina viſu.

Which may be Engliſhed thus;

When as the Eagle, Joves great Bird, did ſee her enemy,
Sharp war in th' air with beak ſhe did prepare
Gainſt Serpent feeding in the Wood, after eſpy
Cauſe it her Egges and young fiercely in pieces tare.
The Serpent not afraid of this, leaps out of thorns
With force upon the Eagle, holding tender Hare,
Out of her talons by fraud and force more ſtrong,
That takes and ſnatches deſpight her enemies fear.
But wary Bird avoids the force, and ſo they fight amain,
That Victor one of them might joy the prey alone,
The flying fowl by winding Snake is hunted all in vain,
Though up and down his nimble eyes this and that way be gone.

In the next place we are to conſider the enmity that is betwixt Dragons and Elephants, for ſo great is their hatred one to the other, that in *Æthiopia* the greateſt Dragons have no other name but Elephant-killers. Among the *Indians* alſo the ſame hatred remaineth, againſt whom the Dragons have many ſubtile inventions: for beſides the great length of their bodies, wherewithall they claſpe and begirt the body of the Elephant, continually biting of him until he fall down dead, and in the which fall they are alſo bruiſed to pieces; for the ſafegard of themſelves they have this device. they get and hide themſelves in trees, covering their head, and letting the other part hang down like a rope: in thoſe trees they watch until the Elephant come to eat and crop of the branches, then ſuddenly before he be aware, they leap into his face, and dig out his eys, then do they claſp themſelves about his neck, and with their tails or hinder-parts, beat and vex the Elephant, until they have made him breathleſſe, for they ſtrangle him with their fore-parts, as they beat them with the hinder, ſo that in this combat they both periſh: and this is the diſpoſition of the Dragon, that he never ſetteth upon the Elephant, but with the advantage of the place, and namely from ſome high tree or rock.

Sometimes again a multitude of Dragons do together obſerve the paths of the Elephants, & croſs thoſe paths they tie together their tails as it were in knots, ſo that when the Elepant cometh along in them, they inſnare his legs, and ſuddenly leap up to his eyes, for that is the part they aim at above all other, which they ſpeedily pull out, and ſo not being able to do him any harm, the poor beaſt delivereth himſelf from preſent death by his own ſtrength, and yet through his blindeneſſe received in that combat, he periſheth by hunger, becauſe he cannot chooſe his meat by ſmelling, but by his eye-ſight.

There is no man living that is able to give a ſufficient reaſon of this contrariety in nature betwixt the Elephant and the Dragon, although many men have laboured their wits, and ſtrained their inventions to finde out the true cauſes thereof, but all in vain, except this be one that followeth. The Elephants bloud is ſaid to be the coldeſt of all other Beaſts, and for this cauſe it is thought by moſt Writers, that the Dragons in the Summer time do hide themſelves in great plenty in the waters where the Elephant cometh to drink, and then ſuddenly they leap up upon his ears, becauſe thoſe places cannot be defended with his trunck, and there they hang faſt, and ſuck out all the bloud of his body, until ſuch a time as he poor beaſt through faintneſſe fall down and die, and they being drunk with his bloud, do likewiſe periſh in the fall.

The Gryffins are likewiſe ſaid ro fight with the Dragons and overcome them. The Panther alſo is an enemy unto the Dragons, and driveth them many times into their dens. There is a little Bird called *Captilus*, by eating of which the Dragon refreſheth himſelf when he is wearyed in hunting of other beaſts. And to conclude, he is an enemy unto all kinde of beaſts, both wilde and tame, as may appear by theſe verſes of *Lucan*, where he ſaith.

———Armentaq; tota ſecuti,
Rumpitis ingentes amplexi verbere Tauros :
Nec tutus ſpatio eſt Elephas.
Which may be Engliſhed thus ;
And following cloſe the Heards in field,
Great Bulls with force of might,
And Elephants are made to yeeld
By Dragons valiant ſprite.

In the next place I will paſſe unto the poyſon and venom of Dragons, omitting all Poetical diſcourſes about the worſhipping and tranſmutation of Dragons from one kinde to another, ſuch as are the hairs of *Orpheus*, or the teeth of the Dragon which *Cadmus* ſlew, into armed men, and ſuch like fables, which have no ſhew nor appearance of truth, but are only the inventions of men, to utter thoſe things in obſcure terms, which they were afraid to do in plain ſpeeches.

It is a queſtion whether Dragons have any venom or poyſon in them, for it is thought that he hurteth more by the wound of his teeth, then by his poyſon. Yet in Deut. 22. *Moſes* ſpeaketh of them as if they had poyſon, ſaying: Their Wine is as the poyſon of Dragons, and the cruel venom of Aſps. So alſo *Heliodorus* ſpeaketh of certain weapons dipped in the poyſon of Dragons. For which cauſe we are to conſider, that they wanting poyſon in themſelves, become venomous two manner of ways: Firſt by the place wherein they live, for in the hotter Countries they are more apt to do harm then in the colder and more temperate, which cauſed the Poet in his verſes to write of them in this manner following ;

Vos quoq; qui cunctis innoxii numina terris
Serpitis aurato nitidi fulgore Dracones,
Peſtiferos ardens facit Africa: Ducitis altum
Aëra cum pennis, &c.———
Which may be Engliſhed in this manner ;
You ſhining Dragons creeping on the earth,
Which fiery Africk yeelds with skin like gold,
Yet peſtilent by hot infecting breath,
Mounted with wings in t' air we do behold.

So that which is ſpoken of the poyſon of Dragons infecting the air wherein they live, is to be underſtood of the Meteor called *Draco-volans*, a Fire-drake, which doth many times deſtroy the fruits of the earth, ſeeming to be a certain burning fire in the air, ſometime on the Sea, & ſometime on the land, whereof I have heard this credible ſtory from men of good worth and reputation, happening about ſome twelve years ago, upon the Weſtern Seas, upon the Coaſts of *England*, which becauſe it is well worthy to be kept in remembrance of all poſterity, and containeth in it a notable work of God, I have thought good to ſet it down in this place.

There was an old Fiſher-man, which with his two hired ſervants went forth to take fiſh, according to his accuſtomed manner and occupation, and having laid their nets, watched them earneſtly to finde the booty they came for, and ſo they continued in their labour untill mid-night or thereabouts, taking nothing. At laſt there came by them a Fire-drake, at the ſight whereof the old man began to be much troubled and afraid, telling his ſervants, that thoſe ſights ſeldom portended any good, and therefore prayed God to turn away all evill from them, and withall, willed his ſervants to take up their Nets, leſt they did all repent it afterward ; for he ſaid he had known much evill follow ſuch apparitions. The young men his ſervants comforted him, telling him that there was no cauſe of fear, and that they had already committed themſelves into the hands of Almighty GOD, under whoſe protection they would tarry untill they had taken ſome fiſh: the old man reſted contented with their confidence, and rather yeelded unto them, then was perſwaded by them. A little while after the Fire-drake came again, and compaſſed round about the Boat, and ran over the Nets, ſo that new fears, and more violent paſſions then before poſſeſſed both the old man and his ſervants. Wherefore they then reſolved to tarry no longer, but haſted to take up their Nets and be gone. And taking up their Nets, at one place they did hang ſo faſt, as without breaking they could not pull them out of the water, wherefore they ſet their Grab-hooks unto them to looſe them ; for the day before they remembred that a Ship was caſt away in the ſame place, and therefore they thought that it might be the Nets were hanged upon ſome of the tacklings thereof: and therein they were not much deceived, for it happened that finding the place whereupon the Net did ſtay, they pulled and found ſome difficulty to remove it, but at laſt they pulled it up, and found it to be a chair of beaten gold. At the ſight hereof their ſpirits were a little revived, becauſe they had attained ſo rich a booty, and yet like men burdened with wealth, (eſpecially the old man,) conceived new fears, and wiſhed he were on land, leſt ſome ſtorm ſhould fall, and lay both it and them the ſecond time in the bottom of the Sea.

So great is the impreſſion of fear, and the natural preſage of evill, in men that know but little in things to come, that many times they prove true Prophets of their own deſtruction, although they have little reaſon till the moment of perill come upon them: and ſo it fell out accordingly in this old man; for whileſt he feared death by ſtorms and tempeſts on the Sea, it came upon him, but by another way and means. For behold the Devill entred into the hearts of his two ſervants, and they conſpired together to kill the old man their Maſter, that ſo between themſelves they might be owners of, that great rich chair, the value whereof (as they conceived) might make them Gentlemen, and maintain them in ſome other Countrey all the days of their life. For ſuch was the reſolution that they conceived upon the preſent, that it would not be ſafe for them to return home again after the fact committed, leſt they ſhould be apprehended for murder, as they juſtly deſerved, their Maſter being ſo made away by them.

The Devill that had put this wicked motion into their mindes, gave them likewiſe preſent opportunity to put the ſame in execution, depriving them of all grace, pity, and piety, ſtill thruſting them forward to perform the ſame. So that not giving him any warning of his death, one of them in moſt ſavage and cruel manner daſhed out his brains, and the other ſpeedily caſt him into the Sea. And thus the fear of this old man, conceived without all reaſon, except ſuperſtition for the ſight of a Fiery-drake, came upon him in a more bloudy manner then he expected: but life ſuſpected it ſelf, and rumors of peril unto guilty conſciences, (ſuch as all we mortal men bear) are many times as forcible as the ſentence of a Judge to the heart of the condemned priſoner; and therefore it were happy that either we could not fear, except when the cauſes are certain, or elſe that we might never periſh but upon premonition. And therefore I conclude with the example of this man, that it is not good to hold a ſuperſtitious fear, leſt God ſee it, and being angry therewith, bring upon us the evill which we fear. But this is not the end of the ſtory, for that Fire-drake, (as by the ſequel appeareth) proved as evill to the ſervants as he did to the Maſter.

Theſe two ſons of the Devill, made thus rich by the death of their Maſter, forthwith they ſailed towards the Coaſt of *France*, but firſt of all they broke the Chair in pieces, and wrapped it up in one of their Nets, making account that it was the beſt fiſh that ever was taken in that Net, and ſo they laid it in one end of their Bark or Fiſher-boat. And thus they laboured all that night and the next day, till three or four of the clock, at what time they eſpyed a Port of *Britain*, whereof they were exceeding glad, by reaſon that they were weary, hungry, and thirſty with long labour, always rich in their own conceit by the gold which they had gotten, which had ſo drawn their hearts from God, as they could not fear any thought of his judgement; And finally it ſo blinded their eyes, and ſtopped their ears, that they did not ſee the vengeance that followed them, nor hear the cry of their Maſters bloud. Wherefore, as they were thus rejoycing at the ſight of land, behold they ſuddenly eſpyed a Man of War coming towards them, whereat they were appalled, and began to think with themſelves that their rich hopes were now at an end, and they had laboured for other, but yet reſolved to die rather then to ſuffer the booty to be taken away from them And while they thus thought, the Man of War approached and hailed them, ſummoning them to come in and ſhew what they were: they refuſed, making forward as faſt to the Land as they could. Wherefore the Man of War ſhot certain Muskets at them, and not prevailing, nor they yeelding, ſent after them his Long-boat, upon the entrance thereof they fought manfully againſt the aſſaylants, until one of them was ſlain, and the other mortally wounded; who ſeeing his fellow kill'd, and himſelf not likely to live, yet in envy againſt his enemy, ran preſently to the place where the Chair lay in the Net, and lifting the ſame up with all his might, caſt it from him into the Sea, inſtantly falling down after that fact, as one not able through weakneſſe to ſtand any longer: whereupon he was taken and before his life left him he related the whole ſtory to them that took him, earneſtly deſiring them to ſignifie ſo much into *England*, which they did accordingly: and as I have heard, the whole ſtory was printed, and ſo this ſecond Hiſtory of the puniſhment of murder, I have related in this place, by occaſion of the Fiery-drake, in the Hiſtory of the Dragon.

A ſecond cauſe why poyſon is ſuppoſed to be in Dragons, is for that they often feed upon many venomous roots, and therefore their poyſon ſticketh in their teeth, whereupon many times the party bitten by them, ſeemeth to be poyſoned; but this falleth out accidentally, not from the nature of the Dragon, but from the nature of the meat which the Dragon eateth. And this is it which *Homer* knew and affirmed in his verſes, when he deſcribed a Dragon making his den neer unto the place where many venomous roots and herbs grew, and by eating whereof he greatly annoyeth mankinde when he biteth them.

Os de Drakoon eſpi Xein oreſteros andra meneſi
Bebrocos kaka pharmaka.——

Which may be thus Engliſhed,

And the Dragon which by men remains,
Eats evill herbs without deadly pains.

And therefore *Ælianus* ſaith well, that when the Dragon meaneth to do moſt harm to men, he eateth deadly poyſonful herbs, ſo that if he bite after them, many not knowing the cauſe of the poyſon, and ſeeing or feeling venom by it, do attribute that to his nature which doth proceed from his meat. Beſides his teeth which bite deep; he alſo killeth with his tail, for he will ſo begirt and pinch in the body, that he doth gripe it to death, and alſo the ſtrokes of it are ſo ſtrong, that either they kill thereby forthwith, or elſe wound greatly with the ſame, ſo

Vincenſius.
Solinus.

that the ſtrokes of his tail, are more deadly then the biting of his teeth; which cauſed *Nicander* to write thus;

Nec tamen ille graves, ut cætera turba, dolores
Si velit, infixo cum forte momorderit ore,
Suſcitat: exiguus non noxia vulnera punctus
(Qui ceu rodentes noctu quæque obvia muris)
Infligit, modicum tenuis dat plaga cruorem.

Which may be thus Engliſhed;

Nor yet he when with his angry mouth
Doth bite, ſuch pains and torments bringeth
As other Serpents, if Ancients tell the truth,
When with his teeth and ſpear he ſtingeth:
For as the holes which biting Mice do leave,
When in the night they light upon a prey,
So ſmall are Dragons-bites which men receive,
And harmleſſe wound makes bloud to run away.

Their mouth is ſmall, and by reaſon thereof they cannot open it wide to bite deep, ſo as their biting maketh no great pain; and thoſe kinde of Dragons which do principally fight with Eagles, are defended more with their tails then with their teeth: but yet there are ſome other kinde of Dragons, whoſe teeth are like the teeth of Bears, biting deep, and opening their mouth wide, wherewithall they break bones, and make many bruiſes in the body, and the males of this kinde bite deeper then the females, yet there followeth no great pain upon the wound.

Aetius.
Grevin.
Avicen.

The cure hereof is like to the cure for the biting of any other Beaſt wherein there is no venom, and for this cauſe there muſt be nothing applyed thereunto which cureth venomous bitings, but rather ſuch things as are ordinary in the cure of every Ulcer.

The ſeed of graſſe, commonly called Hay-duſt, is preſcribed againſt the biting of Dragons. The Barble being rubbed upon the place where a Scorpion of the earth, a Spider, a Sea or Land-dragon biteth, doth perfectly cure the ſame. Alſo the head of a Dog or Dragon which hath bitten any one, being cut off and flayed, and applyed to the wound with a little *Euphorbium*, is ſaid to cure the wound ſpeedily.

And if *Albediſimon* be the ſame that is a Dragon, then according to the opinion of *Avicen*, the cure of it muſt be very preſent, as in the cure of Ulcers. And if *Albatraf* and *Haudem* be of the kinde of Dragons, then after their biting there follow great coldneſſe and ſtupidity; and the cure thereof muſt be the ſame means which is obſerved in cold poyſons. For which cauſe the wound or place bitten, muſt be embrewed or waſhed with luke-warm Vinegar, and emplaiſtered with the leaves of Bay, anointed with the Oyl of herb-*Mary*, and the Oyl of Wilde-pellitory, or ſuch things as are drawn out of thoſe Oyls, wherein is the vertue of Nettles, or Sea-onions.

But thoſe things which are given unto the patient to drink, muſt be the juyce of Bay-leaves in Vinegar, or elſe equall portions of Myrrhe, Pepper, and Rew in Wine, the powder or duſt whereof muſt be the full weight of a golden groat, or as we ſay a *French* Crown.

In the next place, for the concluſion of the Hiſtory of the Dragon, we will take our farewell of him in the recital of his medicinal vertues, which are briefly theſe that follow.

Firſt, the fat of a Dragon dryed in the Sun, is good againſt creeping Ulcers: and the ſame mingled with Honey and Oyl, helpeth the dimneſſe of the eyes at the beginning. The head of a Dragon keepeth one from looking aſquint: and if it be ſet up at the gates and dores, it hath been thought in ancient time to be very fortunate to the ſincere worſhippers of GOD. The eyes being kept till they be ſtale, and afterwards beat into an Oyl with Honey made into Ointment, keep any one that uſeth it from the terrour of night-viſions and apparitions.

The fat of a Hart in the skin of a Roe, bound with the nerves of a Hart unto the ſhoulder, was thought to have a vertue to fore-ſhew the judgement of victories to come. The firſt ſpindle by bearing of it, procureth an eaſie paſſage for the pacification of higher powers. His teeth bound unto the feet of a Roe, with the nerves of a Hart, have the ſame power. But of all other, there is no folly comparable to the compoſition which the Magitians draw out of a Dragon to make one invincible, and that is this: They take the head and tail of a Dragon, with the hairs out of the fore-head of a Lyon, and the marrow of a Lyon; the ſpume or white mouth of a conquering Horſe, bound up in a Harts skin, together with a claw of a Dog, and faſtned with the croſſe nerves or ſinew of a Hart, or of a Roe; they ſay that this hath as much power to make one invincible, as hath any medicine or remedy whatſoever.

The fat of Dragons is of ſuch vertue that it driveth away venomous beaſts. It is alſo reported, that by the tongue or gall of a Dragon ſod in Wine, men are delivered from the ſpirits of the night, called *Incubi* and *Succubi*, or elſe Night-mares. But above all other parts, the uſe of their bloud is accounted moſt notable. But whether the *Cynnabaris* be the ſame which is made of the bloud of the Dragons and Elephants, collected from the earth when the Dragon and Elephant fall down dead together, according as *Pliny* delivereth, I will not here diſpute, ſeeing it is already done in the ſtory of the Elephant: neither will I write any more of this matter in this place, but only refer the Reader unto that which he ſhall finde written thereof in the Hiſtory of our former Book of Four-footed Beaſts.

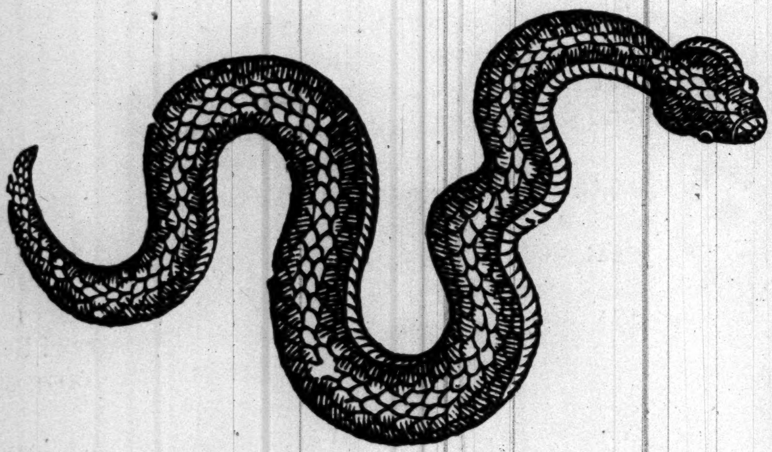
And if that ſatisfie him not, let him read *Langius* in the firſt book of his Epiſtles, and ſixty five Epiſtle, where that learned man doth abundantly ſatisfie all men concerning this queſtion, that are ſtudious of the truth, and not prone to contention. And to conclude, *Andreas Balvacenſis* writeth, that the Bloud-ſtone called the *Hæmatite*, is made of the Dragons bloud: and thus I will conclude

clude the Hiſtory of the Dragon, with this ſtory following out of *Porphyrius*, concerning the good ſucceſſe which hath been ſignified unto men and women, either by the dreams or ſight of Dragons.

Mammea the Mother of *Alexander Severus* the Emperor, the night before his birth, dreamed that ſhe brought forth a little Dragon, ſo alſo did *Olympia* the Mother of *Alexander* the Great, and *Pomponia* the Mother of *Scipio Africanus*. The like prodigy gave *Auguſtus* hope that he ſhould be Emperor. For when his Mother *Aetia* came in the night time unto the Temple of *Apollo*, and had ſet down her bed or couch in the Temple among other Matrons, ſuddenly ſhe fell aſleep, and in her ſleep ſhe dreamed that a Dragon came to her, and claſped about her body, and ſo departed without doing her any harm. Afterwards the print of a Dragon remained perpetually upon her belly, ſo as ſhe never durſt any more be ſeen in any bath.

The Emperor *Tiberius Cæſar*, had a Dragon which he daily fed with his own hands, and nouriſhed like good fortune, at the laſt it happened that this Dragon was defaced with the biting of Emmets, and the former beauty of his body much obſcured: Wherefore the Emperor grew greatly amazed thereat, and demanding a reaſon thereof of the Wiſemen, he was by them admoniſhed to beware the inſurrection of the common people. And thus with theſe ſtories repreſenting good and evill by the Dragon, I will take my leave of this good and evill Serpent.

Of the DRYINE.



THere be ſome that confound this Serpent with the Water-ſnake, and ſay it is none other then that which of ancient time was called *Hydrus*, for ſo long as they live in the water, they are called *Hydri*, that is, Snakes of the water, but when once they come to the land, they are called *Chelidri*, and *Cherſydri*: but it is certain that the *Chelidrus*, is different from the *Cherſydrus*, by the ſtrong ſmell and ſavour which it carryeth with it whereſoever it goeth, according to theſe verſes made of *Umbo* the Prieſt in *Virgil*.

Viperio generi & graviter ſpirantibus Hydris,
Spargere qui ſomnos cantuq; manuq; ſolebat.

Which may be Engliſhed thus;

Who could by ſong and hand bring into deadly ſleep
All kinde of Vipers, with Snakes ſmelling ſtrong and deep.

Which being compared with that inſtruction which he giveth to Shepheards, teaching them how to drive away the ſtrong ſmelling Serpents from the folds, he calleth them *Chelydri*, when he writeth in this manner;

Diſce & odoratam ſtabulis accendere Cedrum,
Galbanioq; agitare graves nidore Chelydros.

That is to ſay in Engliſh thus;

Learn how to drive away ſtrong ſmelling Chelyders
From folds, by Galbanum and ſavoury Cedars.

So that it is clear that theſe Dryines are the ſame which are called *Chelydri*, who do ſtink on the face of the earth, whereby they are oftentimes diſcloſed although they be not ſeen: howbeit, ſome think that this filthy ſavour doth not proceed from any fume or ſmoak coming out of their bodies, but rather from their motion, according to the opinion of *Macer* in theſe following verſes.

Seu terga expirant ſpumantia Virus
Seu terra fumat qua teter labitur Anguis.

Which may be Engliſhed in this manner;

Whether their foming backs that ſmell
Do ſend abroad ſuch poyſon peſtilent,
Or whether th' earth whereon this Snake full fell
Doth ſlide, yeelds that unwholeſome ſent.

It is ſaid that theſe Dryines do live in the bottom or roots of Oaks, where they make their neſts, for which cauſe they be called *Querculi*, as if they were derived from an Oak, which cauſed the Countrey people to call it *Dendrogailla*, which ſignifieth the male and female in this kinde: being bred only in one part of *Africk*, and in *Helleſpont*, and there be of them two kindes, one of the length of two cubits, being very fat and round, and very ſharp ſcales over the back; and they are called *Dryinæ* of *Drus*, that ſignifieth an Oak, becauſe they live in bottom of Oaks: and they are alſo called *Chelydri*, becauſe of their ſharp skins or ſcales, for it is the manner of the *Latines* and the *Grecians*, to call the hard and rough skin of the body of man and beaſt, by the name of *Chelydra*: and I take the Serpents *Cylmdri*, to be the ſame that the Dryines be. Within the ſcales of this Serpent there are bred certain Flyes with yellow wings, as yellow as any Braſſe, the which Flyes at length do eat and deſtroy the Serpent that breedeth them. The colour of their back is blackiſh, and not white as ſome have thought, and the ſavour or ſmell coming from them like to the ſmell of a Horſes hide, wet as it cometh out of the pit, to be ſhaven by the hand of a Tawyer or Glover. And *Bellonius* writeth, that he never ſaw any Serpent greater then this Dryine, which he calleth *Dendrozailla*, nor any that hiſſeth ſtronger; for he affirmeth, that one of theſe put into a ſack, was more then a ſtrong Countreyman could carry two miles together without ſetting it down and reſting. And likewiſe he ſaith, that he ſaw a skin of one of theſe ſtuffed with hair, which did equall in quantity the leg of a great man. The head of this beaſt is broad and flat, and *Olaus Magnus* writeth, that many times, and in many places of the North, about the beginning of Summer theſe Serpents are found in great companies under Oaks, one of them being their head or Captain, who is known by a white creſt or comb on the top of his crown, whom all the reſidue do follow, as the Bees do their King and Captain. And theſe by the relation of old men are thought to beget a certain ſtone, by their mutable breathing upon ſome venomous matter, found in the trees leaves, or earth where they abide: For they abide not only in the roots, but in the hollow bodies of the trees, and ſometimes for their meat and food, they leave their habitation, and deſcend into the Fens and Mariſhes to hunt Frogs: and if at any time they be aſſaulted with the Horſe-flie, they inſtantly return back again into their former habitation. When they go upon the earth, they go directly or ſtraight, for if they ſhould winde themſelves to run, they would make an offenſive noiſe, or rather yeeld a more offenſive ſmell: according to theſe verſes of the Poet *Lucan*;

Aetius.

Natrix & ambiguæ coleret qui Syrtidos arva
Cherſidros, tractiq; via fumante Chelydri.

In Engliſh thus;

The Snake which hant the doubtful Syrtes ſands,
And Chelyders by ſliding fume on lands.

Georgius Fabricius writeth, that he ſaw in the Temple of *Bacchus* at *Rome*, a company of drunken men dancing, leading a male Goat for ſacrifice, having Snakes in their mouths, which Snakes *Prudentius* the Chriſtian poet calleth *Chlydri*, that is, Dryines in theſe verſes following;

——*Baccho caper omnibus aris*
Cæditur, & virides diſcindunt ore Chelydros,
Qui Bromium placare volunt, quod & ebria jam tum
Ante oculos regis Satyrorum inſania fecit.

In Engliſh thus;

A Goat to Bacchus on every altar lies,
While ſacrificers tear Dryines in pieces ſmall
By force of teeth, and that before the eyes
Of Satyres King, mad drunk they fall.

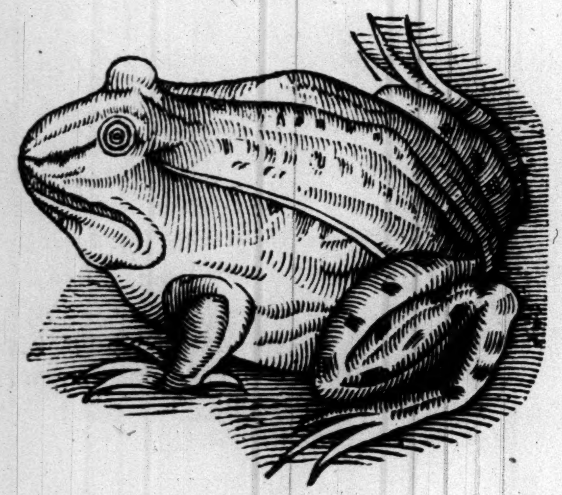
The nature of this Serpent is very venomous and hot, and therefore it is worthily placed among the firſt degree or rank of Serpents, for the ſmell thereof doth ſo ſtupifie a man, as it doth near ſtrangle him, for nature refuſeth to breath, rather then to draw in ſuch a filthy air. And ſo peſtilent is the nature of this Beaſt, that it maketh the skin of the body of a man hurt by it, looſe, ſtinking, and rotten, the eyes to be blinde and full of pain, it reſtraineth the urine, and if it come upon a man ſleeping, it cauſeth often neezing, and maketh to vomit bloudy matter. If a man tread upon it unawares, although it neither ſting nor bite him, yet it cauſeth his legs to ſwell, and his foot to loſe the skin thereof: and that which is more ſtrange, it is reported, that when a Phyſitian cured the hand of one bitten by this Serpent, the skin of his hand alſo came off, and whoſoever killeth one of theſe, if once he ſmell the ſavour of it, whatſoever he ſmelleth afterwards, he ſtill thinketh it ſmelleth of the Dryine. And therefore moſt peſtilent muſt this Serpent needs be, which killeth both touching and ſmelling.

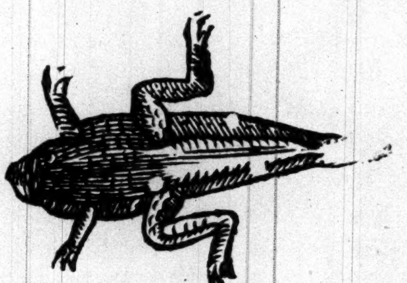
When it hath wounded or bitten, there followeth a black or red ſwelling about the ſore, alſo a vehement pain over all the body through the ſpeedy diſperſing of the poyſon; alſo *Puſtules* or little wheals, madneſſe, dríneſſe of the body, and intolerable thirſt, trembling and mortification of the members wounded, whereof many die. The cure is like to the cure of Vipers, and beſides it is good to take Hart-wort drunk in Wine, or Trifoly, or the roots of Daffadil. Acorns of all kinde of Oaks, are profitable againſt this poyſon, being beaten to powder and drunk. And thus much ſhall ſuffice for this Serpent.

Of the Serpents called ELEPHANTS.

THere be alſo Serpents called Elephants, becauſe whomſoever they bite, they infect with a kinde of leproſie, and I know not whether the Serpent *Elops*, *Elopis*, and *Laphiati* be the ſame, but becauſe I finde no matter worthy in them to be ſpoken of, and they are ſtrangers in our Countrey, the Reader muſt be contented with their bare names without further deſcription.

Of FROGS.





FRogs are called by the *Hebrews*, *Zab*, *Zephardea*, *Urdeana*, and *Urdea Akruka*, and *Maskar*; by the *Arabians*, *Hardun*, *Diſdab*, *Diſphoa*, *Diſdapha*, *Altabaul*; by the *Grecians*, *Batrachos*: whereof cometh the corrupted word *Brackatas*, and *Garazum*. *Lalages* and *Kembroie*, ſignifieth green Frogs; the *Italians* and *Spaniards* call it *Rana*, by the *Latine* word; the *French*, *Grenoville*; the *Germans*, *Froſch*, and *Froſche*, and *Graſſfroch*, for a green Frog. The *Flemings*, *Vroſch*, and *Vrueſch*, and *Pivit*; the *Illyrians* and *Polonians*, *Zaba*, by a word derived from the *Hebrew*. It is ſome queſtion from whence the word *Rana* is derived, and becauſe of much controverſie whether it hath received name, becauſe it liveth on the land and in the water, or from the croaking voyce which it uſeth: I will not trouble the *Engliſh* Reader with that diſcourſe, only I am aſſured, that the word Frog in *Engliſh*, is derived from the *German* word *Froſch*, as many other *Engliſh* words are derived beſides the common name of many Frogs. *Homer* in his Comedy of the fight betwixt Frogs and Mice called *Batrachomyomachia*, hath deviſed many proper names for Frogs, ſuch as theſe are; *Limnocharis*, *Gracediet*, *Pleus*, Duſt-liver; *Hydromedouſa*, Water-hunter; *Phuſignathos*, Nature-cryer; *Hypſiboas*, Loud-cryer: *Leuthaios*, Love-liver; *Poluphonos*, great Labourer; *Krambophagos*, Braſil-eater; *Lymneſios*, Pool-keeper; *Kalaminthios*, Mint-eater; *Hydrocharis*, Water-childe; *Borborokoites*, Noiſe-maker; *Praſſaphagos*, Graſs-eater; *Pelouſios*, duſt-creeper; *Pelobates*, duſt-leaper; *Krawgaſides*, drought-hater; *Praſſaios*, Graſſe-green: and ſuch other like, according to the witty invention of the Author, all which I thought good to name in this place, as belonginging to this Hiſtory.

In the next place we are to conſider the diverſity and kindes of Frogs, as they are diſtinguiſhed by the place of their abode: for the greateſt difference is drawn from thence; ſome of them therefore are Water-frogs, and ſome are Frogs of the land: the Water-frogs live both in the water and on the land, in mariſhes, ſtanding pools, running ſtreams, and banks of Rivers, but never in the Sea; and therefore *Rana Marina* is to be underſtood of a Fiſh, and not a Frog, as *Maſſarius* hath learnedly proved againſt *Marcellus*. The Frogs of the land are diſtinguiſhed by their living in Gardens, in Meddows. in hollow Rocks, and among fruits: all which ſeveral differences ſhall be afterward expreſſed, with their pictures in their due places: here only I purpoſe to talk of the vulgar and common Frog, whoſe picture with her young one is formerly expreſſed. Beſide, theſe differ in generation: for ſome of them are engendered by carnal copulation, and of the ſlime and rottenneſſe of the earth. Some are of a green colour, and thoſe are eaten in *Germany* and in *Flanders*; ſome again are yellow, and ſome of an Aſh-colour, ſome ſpotted, and ſome black, and in outward form and faſhion they reſemble a Toad, but yet they are without venom, and the female is always greater then the male: when the *Egyptians* will ſignifie an impudent man, and yet one that hath a good quick ſight, they picture a Frog, becauſe he liveth continually in the mire, and hath no bloud in his body, but about his eyes.

The tongue is proper to this kinde, for the fore-part thereof cleaveth to the mouth, as in a fiſh, and the hinder part to the throat, by which he ſendeth forth his voyce; and this is to be underſtood, that all Frogs are mute and dum, except the green Frogs, and the Frogs of the water, for theſe have voyces. And many times the voyces of Frogs proceedeth from the nature of the Countries wherein they live: for once all the Frogs, in *Macedonia* and *Cyrenia*, were dum, until there were ſome brought thither out of ſome other Countries, as at this day the Frogs of *Seriphus* are all dum, whereupon came the Proverb, *Batrachos ec Seriphon*, A Frog of *Seriphus*, becauſe the Frogs of that Countrey do never croak, although you carry them into any other Countrey.

This *Seriphus* is one of the Iſlands of the *Sporades* in *Greece*, wherein is the lake called *Pierius*, which doth not run in the Summer, but only in the Winter, and all the Frogs which are caſt into that lake, are perpetually ſilent, and never utter their voyce; whereof there are aſſigned two cauſes, one fabulous, and the other true and natural. The firſt, the *Seriphians* ſay, that when *Perſeus* returned with the head of *Meduſa*, having gone very far till he was weary, laid him down beſide that lake to ſleep, but the croaking Frogs made ſuch a noiſe, as he could take no reſt: Whereat *Perſeus* was much offended, and therefore prayed *Jupiter* to forbid the Frogs from crying, who inſtantly heard his prayer, and injoyned perpetual ſilence to the Frogs in that water: and this is the fabulous reaſon, being a meer fiction of the Poets.

The ſecond and more true reaſon is that of *Theophraſtus*, who ſaith, that for the coldneſſe of the water, the Frogs are not able to cry in that place. The voyce of Frogs is ſaid by the *Latiniſts* to be *Coaxare*, and by the *Grecians*, *Ololugon*; peculiar words to ſet forth this crying: now becauſe their tongue cleaveth to the palat of their mouth, and their voyce proceedeth but from their throat to their mouth, and the ſpirit is hindered by the tongue, ſo as it cannot proceed directly; therefore it hath two bladders upon either ſide of the mouth, one which it filleth with winde, and from thence proceedeth the voyce. Now when it croaketh, it putteth his head out of the water, holding the neather lip even with the water, and the upper lip above the water; and this is the voyce of the male provoking the female to carnal copulation.

They have but very ſmall lungs, and thoſe without bloud, full of froth like to all other creatures of the water, which do lay egges, and for this cauſe they do never thirſt: wherefore alſo Sea-calves and Frogs are able to live long under the water. They have a double Liver, and a very ſmall milt, their legs behinde are long, which maketh them apt to leap; before they are ſhorter, having divided claws which are joyned together with a thin broad skin, that maketh them more apt to ſwim. The moſt place of their abode is in fens, or in warm waters, or in fiſh-pools: but yellow and aſh-coloured Frogs abide in Rivers, Lakes, and ſtanding Pools, but in the Winter time they all hide themſelves in the earth. And therefore it is not true that *Pliny* ſaith, that in the Winter time they are reſolved into ſlime, and in Summer they reſume again their firſt bodies, for they are to be ſeen many times in the Winter; eſpecially in thoſe waters that are never frozen, as *Agrecolaand Mathiolus* hath ſoundly obſerved, and they have been ſeen in certain running ſtreams, holding ſmall fiſhes in their mouths, as it were ſucking meat out of them.

Sometimes they enter into their holes in Autumn before Winter, and in the Spring time come out again. When with their croaking voyces the male provoketh the female to carnal copulation, which he performeth not by the mouth (as ſome have thought) but by covering her back: the inſtrument of generation meeting in the hinder parts, and this they perform in the night ſeaſon, nature teaching them the modeſty or ſhamefaſtneſſe of this action: And beſides in that time they have more ſecurity to give themſelves to mutual imbraces, becauſe of a general quietneſſe, for men and all other their adverſaries are then at ſleep and reſt. After their copulation in the waters, there appeareth a thick jelly, out of which the young one is found. But the land Frogs are ingendered out of Egs, of whom we diſcourſe at this preſent; and therefore they both ſuffer copulation, lay their Egges and bring forth young ones on the land. When the Egge breaketh or is hatched, there cometh forth a little black thing like a piece of fleſh, which the *Latines* call *Gyrini*, from the *Greek* word *Gyrinos*, having no viſible part of a living creature upon them, beſides their eyes and their tails, and within ſhort ſpace after their feet are formed, and their tail divided into two parts, which tail becometh their hinder-legs: wherefore when the *Ægyptians* would deſcribe a man that cannot move himſelf, and afterwards recovereth his motion, they decipher him by a Frog, having his hinder-legs. The heads of theſe young *Gyrini*, which we call in *Engliſh* Horſe-nails; becauſe they reſemble a Horſe-nail in their ſimilitude, whoſe head is great, and the other part ſmall, for with his tail he ſwimmeth. After *May* they grow to have feet, and if before that time they be taken out of the water, they die, when they begin to have four feet.

And firſt of all they are of a black colour and round, and hereof came the Proverb, *Rana Gyrina ſapientior*, wiſer then a Horſe-nail; becauſe through the roundneſſe and volubility of his body, it turneth it ſelf with wonderful celerity, which way ſoever it pleaſeth. Theſe young ones are alſo called by the *Grecians*, *Molurida*, *Brutichoi*, and *Batrachidæ*, but the *Latines* have no name for it, except *Ranunculus*, or *Rana naſcens*. And it is to be remembred, that one Frog layeth an innumerable company of Egges, which cleave together in the water, in the middle whereof ſhe her ſelf lodgeth. And thus much may ſuffice for the ordinary procreation of Frogs by generation out of Egges. In the next place I muſt alſo ſhew how they are likewiſe ingendered out of the duſt of the earth by warm, æſtive, and Summer ſhowers, whoſe life is ſhort, and there is no uſe of them.

Ælianus ſaith, that as he travailed out of *Italy* into *Naples*, he ſaw divers Frogs by the way near *Puteoli*, whoſe fore-part and head did move and creep, but their hinder-part was unformed and like to the ſlime of the earth, which cauſed *Ovid* to write thus;

Semina limus habet virides generantia Ranas,
Et generat truncas pedibus, & eodem corpore ſæpe
Altera pars vivit, rudis eſt pars altera tellus.

That is to ſay;

Durt hath his ſeed ingendring Frogs full green,
Yet ſo as feetleſſe without legs on earth they lie,
So as a wonder unto paſſengers is ſeen,
One part hath life, the other earth full dead is nye.

And of theſe Frogs it is that *Pliny* was to be underſtood, when he ſaith, that Frogs in the Winter time are reſolved into ſlime, and in the Summer they recover their life and ſubſtance again. It is certain alſo, that ſometime it raineth Frogs, as may appear by *Philarchus* and *Lembus*, for *Lembus* writeth thus: Once about *Dardania*, and *Pæonia*, it rained Frogs in ſuch plentiful meaſure, or rather prodigious manner, that all the houſes and high ways were filled with them, and the Inhabitants did firſt of all kill them, but afterwards perceiving no benefit thereby, they ſhut their doores againſt them, and ſtopped up all their lights to exclude them out of their houſes, leaving no paſſage open, ſo much as a Frog might creep into, and yet notwithſtanding all this diligence, their meat ſeething on the fire, or ſet on the table, could not be free from them, but continually they found Frogs in it, ſo as at laſt they were inforced to forſake that Countrey. It was likewiſe reported, that certain *Indiaus* and people of *Arabia*, were inforced to forſake their Countries through the multitude of Frogs.

Cardan ſeemeth to finde a reaſon in nature for this raining of Frogs, the which for the better ſatisfaction of the Reader, I will here expreſſe as followeth: *Fiunt hæc omnia ventorum ira*, and ſo forward in his 16. Book *De Subtilitate*, that is to ſay; theſe prodigious rains of Frogs and Mice, little fiſhes and ſtones, and ſuch like things is not to be wondered at: for it cometh to paſſe by the rage of the windes in the tops of the Mountains, or the uppermoſt part of the Seas, which many times taketh up the duſt of the earth and congealeth them into ſtones in the air, which afterwards fall down in rain; ſo alſo doth it take up Frogs and Fiſhes, who being above in the air, muſt needs fall down again. Sometimes alſo it taketh up the egges of Frogs and Fiſhes, which being kept aloft in the air among the whirl-windes, and ſtorms of ſhewers, do there engender and bring forth young ones, which afterwards fall down upon the earth, there being no pool for them in the air. Theſe and ſuch like reaſons are approved among the learned for natural cauſes of the prodigious raining of Frogs.

But we read in holy Scripture among the plagues of *Egypt*, that Frogs were ſent by God to annoy them; and therefore whatſoever is the material cauſe, it is moſt certain that the wrath of God and his Almighty hand, is the making or efficient cauſe, and for the worthineſſe of that divine ſtory, how God maketh and taketh away Frogs, I will expreſſe it as it is left by the holy Ghoſt, in ch. 8. Exod. ver. 5. *Alſo the Lord ſaid unto* Moſes, *ſay thou unto* Aaron, *ſtretch thou out thy hand with thy rod upon the ſtreams, upon the rivers, and upon the ponds, and cauſe Frogs to come upon the land of* Egypt. Ver. 6. *Then* Aaron *ſtretched out his hand upon the waters of* Egypt, *and the Frogs came up and covered the land of* Egypt. Verſ. 7. *And the Sorcerers did likewiſe with their Sorceries, and brought Frogs upon the land of* Egypt. Verſ. 8. *Then* Pharaoh *called for* Moſes *and* Aaron, *and ſaid; Pray ye unto the Lord, that he may take away the Frogs from me, and from my people, and I will let the people go, that they may do ſacrifice to the Lord.* Verſ. 9. *And* Moſes *ſaid unto* Pharaoh, *concerning me, Command when I ſhall pray for thee and thy ſervants, and thy people, to deſtroy the Frogs from thee, and from thy houſes, that they may remain in the River only.* Verſ. 10. *Then he ſaid to morrow, and he anſwered, Be it as thou haſt ſaid, that thou mayſt know that there is none like the Lord our God.* Verſ. 11. *So the Frogs ſhall depart from thee, and from thy houſes, and from thy people, and from thy ſervants, only they ſhall remain in the River.* Ver. 12. *Then* Moſes *and* Aaron *went out from* Pharaoh, *and* Moſes *cryed unto the Lord concerning the Frogs which he had ſent unto* Pharaoh. Verſ. 13. *And the Lord did according to the ſaying of* Moſes, *ſo the Frogs dyed in the houſes, and in the Towns, and in the fields.* Verſ. 14. *And they gathered them together by heaps, and the land ſtank of them*, &c.

And this was the ſecond plague of *Egypt*, wherein the Lord turned all the Fiſhes into Frogs: as the Book of Wiſdom ſaith, *and the Frogs abounded in the Kings chamber*: and notwithſtanding this great judgement of God for the preſent, *Pharaoh* would not let the people go, and afterwards that blinde ſuperſtitious Nation became worſhippers of Frogs, (as *Philaſtrius* writeth) thinking by this devotion, or rather wickedneſſe in this obſervant manner, to pacifie the wrath of God, chooſing their own ways before the word of Almighty God: But vain is that worſhip which is invented without heavenly warrant, and better it is to be obedient to the will of God, then go about to pleaſe him with the cogitations of men, although in their pretended holineſſe we ſpend much time, wealth, and bloud.

There was one *Cypſelus*, the father of *Periander*, who by his mother was hid in a Cheſt called *Kypſele*, to be preſerved from the hands of certain murtherers, which were ſent to kill him. Wherefore afterwards the ſaid *Cypſelus* conſecrated a houſe at *Delphos* to *Apollo*, becauſe he heard his crying when he was hid in a cheſt, and preſerved him. In the bottom of that houſe, was the trunk of a Palm-tree and certain Frogs pictured running out of the ſame: but what was meant thereby is not certainly known, for neither *Plutarch* which writeth the ſtory, nor *Cherſias* which relateth it, giveth any ſignification thereof: but in another place where he enquireth the reaſon why the Oracle of *Pythias* gave no anſwer, he conjectured becauſe it was that the accurſed thing brought out of the Temple of *Apollo* from *Delphos*, into the *Corinthian* houſe, had ingraven underneath the Brazen Palm, Snakes, and Frogs, or elſe for the ſignification of the Sun riſing.

The meat of Frogs thus brought forth are green herbs and Humble-bees, or Shorn-bugs, which they devour or catch when they come to the water to drink: ſometime alſo they are ſaid to eat earth, but as well Frogs as Toads do eat the dead Mole, for the Mole devoureth them being alive. In the moneth of *Auguſt*, they never open their mouths, either to take in meat or drink, or to utter any voyce, and their chaps are ſo faſt joyned or cloſed together, that you can hardly open them with your finger, or with a ſtick. The young ones of this kinde are killed by caſting Long-wort, or the leaves of Sea-lettice, as *Ælianus* and *Suidas* write: and thus much for the deſcription of their parts, generation, and ſuſtentation of theſe common Frogs.

Albertus.

The wiſdom or diſpoſition of the *Ægyptian* Frogs is much commended, for they ſave themſelves from their enemies with ſingular dexterity. If they fall at any time upon a Water-ſnake, which they know is their mortal enemy, they take in their mouths a round Reed, which with an invincible ſtrength they hold faſt, never letting go, although the Snake have gotten her into her mouth, for by this means the Snake cannot ſwallow her, and ſo ſhe is preſerved alive.

There is a pretty fable of a great Bull which came to the water to quench his thirſt, and whileſt the Beaſt came running greedily into the water, he trod in pieces two or three young Frogs; then one of them which eſcaped with life, went and told his mother the miſerable misfortune and chance of his fellows: ſhe asked who it was that had ſo killed her young ones, to whom he anſwered: It was a great one, but how great he could not tell; the fooliſh Mother-frog deſirous to have ſeen ſome body in the eyes of her ſon, began to ſwell with holding in of her breath, and then asked the young one if the Beaſt were as big as ſhe? And he anſwered much greater, at which words ſhe began to ſwel more, and asked him again if the Beaſt were ſo big? To whom the young one anſwered, Mother leave your ſwelling, for though you break your ſelf, you will never be ſo big as he: and I think from this fable came the Proverb, *Rana Gyrina ſapientior*, wiſer then the young Frog. This is excellently deſcribed by *Horace* in his third *Satyre*, as followeth;

Abſentis ranæ pullis vituli pede preſſis
Unus ubi effugit matri denarrat, ut ingens
Bellua cognatos eliſerit, illa rogare,
Quantáne? Num tandem, ſe inflans. ſic magna fuiſſet?
Major dimidio: Num tanto? Cum magis atq;
Se magis inflaret, non ſi te ruperis, inquit,
Par eris: hæc à te non multum abludit imago.

Which may be Engliſhed thus;

In old Frogs abſence, the young were preſt to death
By feet of a great Calf, drinking in the water,
To tell the dam, one ran that ſcap't with life and breath,
How a great beaſt her young to death did ſcatter.
How great ſaid ſhe? ſo big? and then did ſwell.
Greater by half, ſaid he: then ſhe ſwoll more, and ſaid
Thus big? but he: ceaſe ſwelling dam, for I thee tell,
Though break thy ſelf, like him thou never canſt be made.

There is another pretty fable in *Eſop*, tasking diſcontented perſons under the name of Frogs, according to the old verſe:

Et veterem in limo ranæ cecinere querelam,
Nam neque ſicca placet, nec quæ ſtagnata palude
Perpetitur, querulæ ſemper convitia ranæ.

Which may be Engliſhed in this manner;

The Frogs amidſt the earthly ſlime,
Their old complaints do daily ſing:
Not pleas'd with pools, nor land that drine,
But new diſpleaſures daily bring.

When *Ceres* went about ſeeking *Proſerpina*, ſhe came to a certain Fountain in *Lycia* to quench her thirſt, the uncivil *Lycians* hindered her from drinking, both by troubling the water with their feet, and alſo by ſending into the water a great company of croaking Frogs; whereat the Goddeſſe being angry, turned all thoſe Countrey people into Frogs. But *Ovid* doth aſcribe this tranſmutation of the *Lycians*, to the prayer of *Latona*, when ſhe came to drink of the Fountain to increaſe the milk in her breaſts, at ſuch a time as ſhe nurſed *Apollo* and *Diana*, which *Metamorphoſis* or tranſmutation, is thus excellently deſcribed by *Ovid*;

Æternum ſtagno (dixit) vivatis in iſto.
Eveniunt optata deæ, juvat eſſe ſub undis,
Et modo tota cava ſummergere membra palude,
Nunc proferre caput, ſummo modo gurgite nare,
Sæpe ſuper ripam ſtagni conſiſtere, ſæpe
In gelidos reſilire lacus, ſed nunc quoque turpes
Litibus exercent linguas, pulſoque pudore
Quamvis ſint ſub aqua, ſub aqua male dicere tentant.

Vox quoque jam rauca eſt, inflataq; colla tumeſcunt :
Ipſaque dilatant patulos convitia rictus.
Terga caput tangunt, colla intercepta videntur.
Spina viret, venter pars maxima corporis albet,
Limoſoq; novæ ſaliunt in gurgite ranæ.

In Engliſh thus;

——— For ever mought you dwell
In this ſame pond ſhe ſaid : her wiſh did take effect with ſpeed,
For underneath the water they delight to be indeed :
Now dive they to the bottom down, now up their heads they pop,
Another while with ſprawling legs they ſwim upon the top,
And oftentimes upon the banks they have a minde to ſtond,
And oftentimes from thence again to leap into the pond :
And there they now do practiſe ſtill their filthy tongues to ſcold,
And ſhameleſly, though underneath the water they do hold
Their former wont of brauling, ſtill avoid the water cold :
Their voyces ſtill are hoarſe and harſh, their throats have puffed goawls,
Their chaps with brawling widened are, their hammer-headed joawles,
Are joyned to their ſhoulders juſt, the necks of them do ſeem
Cut off : the ridge bone of their back ſticks up with colour green.
Their panch which is the greateſt part of all their trunck is gray,
And ſo they up and down the pond made newly Frogs do play.

Whatſoever the wiſdom of Frogs is, according to the underſtanding of the Poets, this is certain, that they ſignifie impudent and contentious perſons, for this cauſe there is a pretty fiction in Hell betwixt the two Poets, *Euripides* and *Aeſchylus* : for the ending of which controverſie, *Bacchus* was ſent down to take the worthyeſt of them out of Hell into Heaven : and as he went over *Charons* Ferry, he heard nothing but the croaking of Frogs, for ſuch contentious ſpirits do beſt befit Hell. And thus much ſhall ſuffice to have ſpoken of the wiſedom of Frogs.

Their common enemies are the Weaſels, Poul-cats, and Ferrets, for theſe do gather them together, and lay of them great heaps within their dens : whereupon they feed in Winter. The Hearn alſo and Bittern, is a common deſtroyer of Frogs, and ſo likewiſe are ſome kinde of Kites. The Night-birds, *Gimus* and *Gimeta*, the Water-ſnake (at whoſe preſence in token of extream terror) the Frog ſetteth up her voyce in lamentable manner. The Moles are alſo enemies to Frogs, and it is further ſaid ; that if a burning Candle be ſet by the water ſide, during the croaking of Frogs, it will make them hold their peace. Men do alſo take Frogs, for they were wont to bait a hook with a little red wooll, or a piece of red cloth, alſo the gall of a Goat put into a veſſel, and ſet in the earth, will quickly draw unto it all the Frogs that be near it, as if it were unto them a very grateful thing : And thus much ſhall ſuffice to have ſpoken of the enemies of Frogs. Now in the next place we are to conſider the ſeveral uſes, both Natural, Medicinal, and Magical, which men do make of Frogs.

And firſt of all the green Frogs, and ſome of the yellow which live in Flouds, Rivers, Lakes, and Fiſh-pools, are eaten by men ; although in ancient time they were not eaten, but only for Phyſick, for the broth wherein they were ſod, and the fleſh alſo, was thought to have vertue in it to cure them which were ſtrucken by any venomous creeping Beaſt, eſpecially mixed with Salt and Oyl : but ſince that time *Aetius* diſcommendeth the eating of Frogs, proving that ſome of them are venomous, and that by eating thereof, extream vomits have followed, and they can never be good, except when they are newly taken, and their skins diligently flayed off, and thoſe alſo out of pure running waters and not out of muddy ſtinking puddles : and therefore adviſeth to forbear in plenty of other meat, this wanton eating of Frogs, as things perilous to life and health, and thoſe Frogs alſo which are moſt white when the skin is taken off, are moſt dangerous and fulleſt of venom, according to the counſel of *Fiera*, ſaying ;

Vltima, ſed noſtros non acceſſura lebetes,
Noluimus, ſucci eſt pluvii & limoſa maligni.
Ni ſaliat, putris rana paraba titer.
Irata eſt & adhuc rauca coaxat aquis.

In Engliſh thus;

We will not dreſſe a Frog unleſſe the laſt of all to eat,
Becauſe the juyce thereof is muddy and of rain unclean,
Except it go on earth, prepared way to leap.
For, argry it ever is, and hath hoarſe voyce amid the ſtream.

They which uſe to eat Frogs, fall to have a colour like lead, and the hotter the Countries are, the more venomous are the Frogs ; in colder Countries, as in *Germany* they are not ſo harmful, eſpecially after the Spring of the year, and their time of copulation paſſed. Beſides, with the fleſh of Frogs, they were wont in ancient time to bait their hooks, wherewithal they did take purple Fiſhes, and they did burn the young Frogs, putting the powder thereof into a Cat, whoſe bowels was taken out, then roſting the Cat, and after ſhe was roaſted, they anointed her all over with Honey, then laid her by a Wood ſide, by the odour and ſavour whereof, all the Wolfs and Foxes lodging in the ſaid Wood were allured to come to it, and then the Hunters lying ready in wait, did take, deſtroy, and kill them. When Frogs do croak above their uſual cuſtom, either more often, or more ſhrill then they were wont to do: they do foreſhew rain and tempeſtuous weather.

Wherefore *Tully* ſaith in his firſt Book of Divination, who is it that can ſuſpect, or once think that the little Frog ſhould know thus much, but there is in them an admirable underſtanding nature, conſtant and open to it ſelf, but more ſecret and obſcure to the knowledge of men; and therefore ſpeaking to the Frogs, he citeth theſe verſes;

Vos quoq; ſigna videtis aquai dulcis alumnæ,
Cum clamore paratis inanes fundere voces,
Abſurdoq; ſono fontes & ſtagna cietis.

In Engliſh thus;

And you O Water-birds which dwell in ſtreams ſo ſweet,
Do ſee the ſignes whereby the weather is foretold,
Your crying voyces wherewith the waters are repleat,
Vain ſounds, abſurdly moving Pools and Fountains cold.

Albertus.
Kiranides.
Democritus.

And thus much for the natural uſe of Frogs. Now followeth the Magical, It is ſaid that if a man take the tongue of a Water-frog, and lay it upon the head of one that is aſleep, he ſhall ſpeak in his ſleep, and reveal the ſecrets of his heart: but if he will know the ſecrets of a woman, then muſt he cut it out of the Frog alive, and turn the Frog away again, making certain characters upon the Frogs tongue, and ſo lay the ſame upon the panting of a womans heart, and let him ask her what queſtions he will, ſhe ſhall anſwer unto him all the truth, and reveal all the ſecret faults that ever ſhe hath committed. Now if this magical foolery were true, we had more need of Frogs then of Jnſtices of Peace, or Magiſtrates in the Common-wealth.

But to proceed a little further, and to detect the vanity of theſe men, they alſo ſay, that the ſtaffe wherewithal a Frog is ſtruck out of a Snakes mouth, laid upon a woman in travail, ſhall cauſe an eaſie deliverance: and if a Man cut off a foot of a Frog as he ſwims in the water. and binde the ſame to one that hath the Gout, it will cure him. And this is as true as a ſhoulder of Mutton worn in ones Hat healeth the Tooth-ach.

Some again do write, that if a woman take a Frog, and ſpit three times in her mouth, ſhe ſhall not conceive with childe that year. Alſo if Dogs eat the pottage wherein a Frog hath been ſod, it maketh him dum and cannot bark. And if a Man caſt a ſod Frog at a Dog, which is ready to aſſault him, it will make him run away, (I think as faſt as an old hungry Horſe from a bottle of Hay.) Theſe and ſuch like vanities have the ancient Heathens (ignorant of GOD) firmly believed, till either experience diſapproved their inventions, or the ſincere knowledge of Religion inlightning their darkneſſe, made them to forſake their former vain errors, which I would to GOD had come ſooner unto them, that ſo they might never have ſinned; or elſe being now come unto us their children, I pray GOD that it may never be removed. leſt by truſting in lying vanities, we forſake our own mercy. And ſo an end of the Magical Uſes. Now we proceed to the Medicinal, in the biting of every venomous creature. Frogs ſod or roaſted, are profitable, eſpecially the broth, if it be given to the ſick perſon without his knowledge, mixed with Oyl and Salt, as we have ſaid already. The fleſh of Water frogs is good againſt the biting of the Sea-hare, the Scorpion, and all kinde of Serpents; againſt Leproſie and ſcabs, and rubbed upon the body, it doth cure the ſame.

The broath taken into the body with roots of Sea-holm, expelleth the Salamander: ſo alſo the Egges of the Frog, and the Egges of the Tortoiſe, hath the ſame operation, being ſod with Calaminth. The little Frogs are an antidote againſt the Toads and great Frogs. *Albertus* alſo among other remedies, preſcribeth a Frog to be given to ſick Faulkons or Hawks; It is alſo good for cricks in the neck, or the Cramp. The ſame ſod with Oyl, eaſeth the pains and hardneſſe of the joynts and ſinews: they are likewiſe given againſt an old Cough, and with old Wine and ſod Corn drunk out of the Veſſel wherein they are ſod, they are profitable againſt the Dropſie, but with the ſharpeſt Vinegar, Oyl, and ſpume of Niter ſod together, by rubbing and anointing, cureth all ſcabs in Horſes, and peſtilent tumors.

There is an Oyl likewiſe made out of Frogs, which is made in this manner; they take a pound of Frogs, and put them into a veſſel or glaſſe, and upon them they pour a pinte of Oyl, ſo ſtopping the mouth of the glaſſe, they ſeethe it as they do the Oyl of Serpents, with this they cure the ſhrinking of the ſinews, and the hot Gout, they provoke ſleep, and heal the inflammations in Fevers, by anointing the Temples. The effect of this Oyl is thus deſcribed by *Serenus*;

Sæpe ita per vadit vis frigoris, ac tenet artus,
Vt vix quæſito medicamine pulſa recedat.
Si ranam ex oleo decoxeris, abjice carnem,
Membra fove.——

That is to ſay;

Often are the ſinews held by force invading cold,
Which ſcarſe can be repelled back by medicines tried might,
Then ſeethe a Frog in pureſt Oyl, as Ancients us have told,
So bathe the members ſick therein, Frogs fleſh caſt out of ſight.

And again in another place he ſpeaking of the cure of the Fever, writeth thus;

Sed prius eſt oleo partus fervescere Ranæ,
In triviis, illeque artus perducere ſucco.

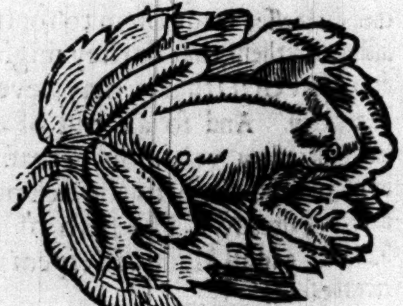
In Engliſh thus;

But firſt let Oyl make hot young Frogs new found
In ways, therewith bring ſinews weak to weal full ſound.

To conclude, it were infinite and needleſſe to expreſſe all that the Phyſitians have obſerved about the Medicines riſing out of the bloud, fat, fleſh, eyes, heart, liver, gall, intrails, legs, and ſperm of Frogs, beſides powders, and diſtillations; therefore I will not weary the Reader, nor give occaſion to ignorant men, to be more bold upon my writing of Phyſick then is reaſon, leſt that be ſaid againſt me which proverbially is ſaid of unneceſſary things, *Ranis vinum miniſtras*, you give Wine to Frogs, which have neither need nor nature to drink it, for they delight more in water. And ſo I conclude the Hiſtory of this vulgar Frog.

Of the GREEN FROG.

THis Frog is called *Calamites*, and *Dryophytes*, and *Mantis*, and *Rana virens*. In *Arabia blepharicon*, and *Cucunoines*, and *Cucumones*, *Irici*, *Ranulæ*, *Brexantes*, of *Brexein*, to rain, and thereof cometh the faigned word of *Ariſtophanes*, *Brekekekex Koax*; but I think that as our Engliſh word Frog is derived from the *German* word *Froſch*, ſo the *Germans Froſch* from the *Greek* word *Brex*. It is called alſo *Zamia*, that is, *Damnum*, loſſe, hurt or damage, becauſe they live in trees, and many times harm Men and Cattle underneath the trees; and therefore called *Zamiæ*, of the *Greek* word *Zemia*. The *Italians* call it *Racula*, *Ranocchia*, *Lo Ronovoto*, *Ranonchia de rubetto*. The *French*, *Croiſſetz*, and ſometimes *Graiſſet*, *Verdier*; *in Savöy*, *Renogle*. In *Germany*, *Loubfroſch*. In *Poland*, *Zuba Trawna*. Some of the *Latines* for difference ſake call it *Rana Rubeta*, becauſe it liveth in trees and buſhes: and for the ſame cauſe it is called *Calamites*, becauſe it liveth among reeds, and *Dryopetes*, becauſe it falleth ſometimes out of trees.



It is the leaſt of all other Frogs, and liveth in trees, or among fruits and trees, eſpecially in the Woods of Haſels, or Vines, for with its ſhort legs it climbeth the higheſt trees: inſomuch that ſome have thought it had wings. It is green all over the body, except the feet and the fingers, which are of duſty or reddiſh colour, and the tops of his nails or claws are blunt and round: In the diſſection thereof there was bloud found in every part of the body, and yet but little. The heart of it is white, the liver black, mixed with the gall. It hath alſo a milt, and in the end of *July* it layeth egges.

It is a venomous Beaſt, for ſometimes Cattle as they brouſe upon trees, do ſwallow down one of theſe upon the leaves not diſcerning it, becauſe it is of the ſame colour: but preſently after they have eaten it their Bellies begin to ſwell, which muſt needs proceed from the poyſoned Frog.

A ſecond reaſon proving it to be venomous, is for that many Authors do affirm, that hereof is made the *Pſilothrum*, for the drawing out of teeth by the roots, and for this cauſe is concluded to be venomous, becauſe this cannot be performed without ſtrong poyſon. But for the cure of the poyſon of this Frog, we ſhall expreſſe it afterward in the hiſtory of the Toad, and therefore the Reader muſt not expect it in this place. Always before rain they climbe up upon the trees and there cry after a hoarſe manner very much, which cauſed the Poet *Serenus* to call it *Rauco garrula queſtu*: at other times it is mute, and hath no voyce: wherefore it is more truly called *Mantis*, that is, a Prophet or a Diviner, then any other kinde of Frog, becauſe other Frogs which are not altogether mute, do cry both for fear, and alſo for deſire of carnal copulation, but this never cryeth but before rain.

Some have been of opinion, that this is a dum Frog; and therefore *Vincentius Belluacenſis* ſaith, that it is called a mute Frog from the effect: for there is an opinion, that this put into the mouth of a Dog, maketh him dum, which if it be true; it is an argument of the extreme poyſon therein contained, overcoming the nature of the Dog, whoſe chiefeſt ſenſes are his taſte and his ſmelling. And thus much ſhall ſuffice for the deſcription of this Frog.

The medicinal vertues obſerved herein are theſe that follow. Firſt if a man which hath a cough, do ſpet into the mouth of this Frog, it is thought that it doth deliver him from his cough, and being bound in a Cranes skin unto a mans thigh, procureth venereous deſires: but theſe are but magical devices, and ſuch as have no apparent reaſon in nature, wherefore I will omit them, and proceed to them that are more reaſonable and natural. Firſt, for the Oyl of Frogs, that is the beſt which is made out of the green Frogs, as it is obſerved by *Silvius*; and if they are held betwixt a mans hands, in the fit of hot burning Ague, do much refreſh nature, and eaſe the pain. For Fever-hecticks they prepare them thus: they take ſuch Frogs as have white bellies, then cut off their heads and pull out their bowels, afterwards they ſeethe them in water, until the fleſh fall from the bones. then they mingle the ſaid fleſh with Barley meal, made into paſte, wherewithal they cram and feed Pullen with that paſte, upon which the ſick man muſt be fed, and in default of Frogs they do the like with Eels, and other like Fiſhes. But there is no part of the Frog ſo medicinable as is the bloud, called alſo the matter or the juyce, and the humor of the Frog, although ſome of them write, that there is no bloud but in the eyes of a Frog: Firſt therefore with this they kill hair, for upon the place where the hair was puld off, they pour this bloud, and then it never groweth more: And this as I have ſaid already, is an argument of the venom of this Frog; and it hath been proved by experience, that a man holding one of theſe Frogs in his hands, his hands have begun to ſwell, and to break out into bliſters. Of this vertue *Serenus* the Poet writeth thus;

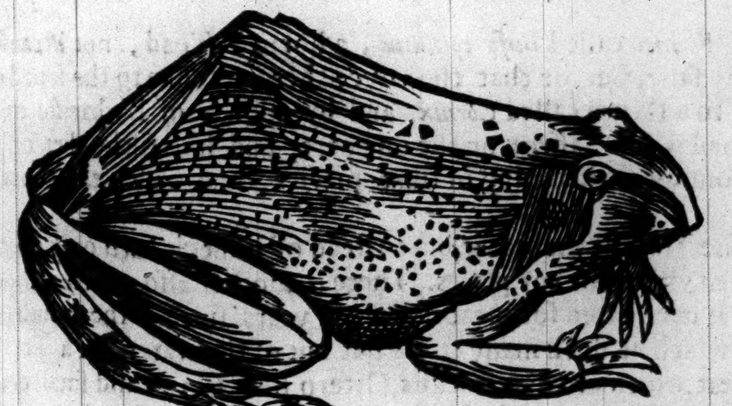
Præterea quaſcunque voles avertere ſetas,
Atque in perpetuum rediviva occludere tela,
Corporibus vulſis ſaniem perducito ranæ,
Sed quæ parva ſitu eſt, & rauco garrula queſtu.

That is to ſay;

Beſides, from whatſoever bodies hairs thou will
Be clean deſtroyed, and never grow again
On them, the mattery bloud of Frogs, all ſpread and ſpill,
I mean the little Frog queſting hoarſe voyce amain.

The ſame alſo being made into a Verdigreaſe, and drunk the weight of a Crown, ſtoppeth the continual running of the urine. The humor which cometh out of the Frog, being alive when the skin is ſcraped off from her back, cleareth the eyes by an Ointment: and the fleſh laid upon them, eaſeth their pains; the fleſh and fat pulleth out teeth. The powder made of this Frog being drunk, ſtayeth bleeding, and alſo expelleth ſpots of bloud dryed in the body. The ſame being mingled with Pitch, cureth the falling off of the hair. And thus much ſhall ſuffice for the demonſtration of the nature of this little green Frog.

Of the Padock or Crooked back FROG.



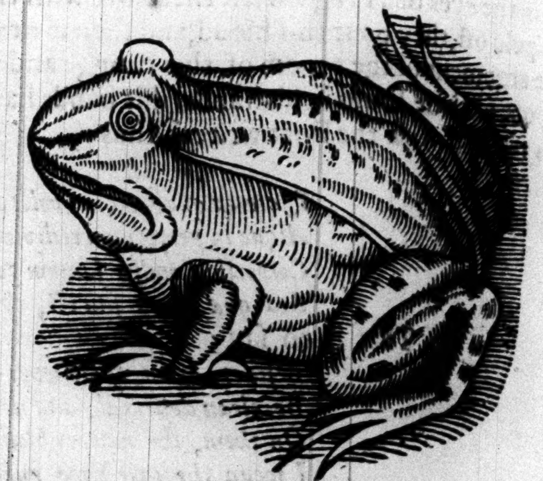
IT is apparent that there be three kindes of Frogs of the earth, the firſt is the little green Frog: the ſecond is this Padock, having a crook back, called in *Latine*, *Rubeta Gibboſa*; and the third is the Toad, commonly called *Rubetax*, *Bufo*. This ſecond kinde is mute and dumb, as there be many kinde of mute Frogs, ſuch as is that which the *Germans* call *Feurkrott*, and our late Alchymiſts *Puriphrunon*, that is, a Fire-frog, becauſe it is of the colour of fire: This is found deep in the earth, in the midſt of Rocks and ſtones when they are cleft aſunder, and amongſt metals, whereinto there is no hole or paſſage, and therefore the wit of man cannot deviſe how it ſhould enter therein, only there they finde them when they cleave thoſe ſtones in ſunder with their wedges and other inſtruments. Such as theſe are, are found near *Tours* in *France*, among a red ſandy ſtone, whereof they make the Milſtones, and therefore they break that ſtone all in pieces before they make the Milſtone up, leſt while the Padock is included in the middle, and the Milſtone going in the mill, the heat ſhould make the Padock ſwell, and ſo the Milſtone breaking, the corn ſhould be poyſoned. Aſſoon as theſe Padocks come once into the air, out of their cloſe places of generation and habitation, they ſwell and ſo die.

This crook-backed Padock is called by the *Germans*, *Gartenfroſch*, that is, a Frog of the Garden, and *Grasfroſch*, that is, a Frog of the graſſe. It is not altogether mute, for in time of peril, when they are chaſed by men, or by Snakes, they have a crying voyce, which I have oftentimes proved by experience, and all Snakes and Serpents do very much hunt and deſire to deſtroy theſe: alſo I have ſeen a

Snake hold one of them by the leg, for becauſe it was great ſhe could not eaſily devour it, and during that time it made a pitiful lamentation.

Theſe Padocks have as it were two little horns or bunches in the middle of the back, and their colour is between green and yellow, on the ſides they have red ſpots, and the feet are of the ſame colour, their belly is white, and that part of their back which is directly over their breaſt, is diſtinguiſhed with a few black ſpots. And thus much may ſerve for the particular deſcription of the Padock, not differing in any other thing that I can read of from the former Frogs, it being venomous as they are, and therefore the cure is to be expected hereafter, in the next Hiſtory of the Toad.

Of the TOAD.



TO conclude the ſtory of Frogs, we are now to make deſcription and narration of the Toad, which is the moſt noble kinde of Frog, moſt venomous and remarkable for courage and ſtrength. This is called in *Hebrew* by ſome *Coah*; the *Grecians* call it *Phrunon*; the *Arabians*, *Myſoxus*; the *Germans*, *Krott*: the *Saxons*, *Quap*; the *Flemings*, *Padde*; the *Illyrians*, *Zaba*; the *French*, *Crapault*; the *Italians*, *Roſpo*, *Botta*, *Boffa*, *Chiatto*, *Zatto*, *Buffo*, *Buffa*, *Buffone*, and *Ramarro*; the *Spaniard*, *Sapo eſcu*, *erco*, the *Latines*, *Rubeta*, becauſe it liveth among buſhes, and *Buſo*, becauſe it ſwelleth when it is angry.

Now I finde of theſe Toads two kindes, the one called *Rubeta paluſtris*, a Toad of the fens, or of the waters; the other *Rubeta terreſtris*, a Toad of the earth; And theſe in Authors are ſometimes confounded, one taken for another. The greateſt difference that I can learn, is their ſeat or place of habitation, for they live both of them in the land and in the water. And of them that be in the water, ſome of them be ſmaller then the other, and are therefore called *Rubetulæ*, that is, little Toads: and I think they be the ſame which are called by ſome Authors *Ranæ Simoides*. Near unto *Zurick*, there are Toads not half ſo big as the vulgar Toads, at a place called *Kiburg*, being of a durty colour on the back, and ſharp boned, the belly white and yellow, or rather betwixt both, the eyes of a gold flaming colour, the buttocks and hinder-legs hairy, and beſides that place, theſe kindes of Toads are no where found. They have a very ſhrill voyce, ſo as they are heard a great way off, like a ſmall bell or trumpet, and they never utter their voyce but in the Spring, and the fore-part of the Summer; for about *September* they hide themſelves in trees, neither do they live among the waters, but on the dry land; when they cry, it is certain that the night following will bring forth no froſt.

Like unto this there is a Toad in *France* called *Buſo cornutus*, a horned Toad, not becauſe it hath horns, for that is moſt apparently falſe, but for that the voyce thereof is like to the ſound of a Cornet, or rather (as I think) like to a Raven called *Cornix*, and by a kinde of Barbariſm called *Buſo cornutus*. The colour of this Toad is like Saffron on the one part, and like filthy dirt on the other: beſides, there are other venomous Toads living in ſinks, privies, and under the roots of plants.

There is another kind alſo, like to the Toad of the water, but in ſtead of bones it hath only griſtles, and it is bigger then the Toad of the fen, living in hot places. There is another alſo, which although it be a Toad of the water, yet hath it been eaten for meat not many years ſince: the mouth of it is very great, but yet without teeth, which he doth many times put out of the water like a Tortoiſe to take breath, and in taking of his meat, which are flies, Locuſts, Caterpillers, Gnats and ſmall creeping things, it imitateth the Chamæleon, for it putteth out the tongue, and licketh in his meat by the ſpace of three fingers, in the top whereof there is a ſoft place, having in it viſcous humor, which cauſeth all things to cleave faſt unto it which it toucheth, by vertue whereof it devoureth great flies. And therefore the ſaid tongue is ſaid to have two little bones growing at the root thereof, which by the wonderful work of Nature, doth guide, fortifie and ſtrengthen it. And thus much may ſerve as a ſufficient relation unto the Reader for the diverſity of Toads.

Now we will proceed to the common deſcription of both kindes together. This Toad is in all outward parts like unto a Frog, the fore-feet being ſhort, and the hinder-feet long, but the body more heavy and ſwelling, the colour of a blackiſh colour, the skin rough, viſcous, and very hard, ſo as it is not eaſie to be broken with the blow of a ſtaffe. It hath many deformed ſpots upon it, eſpecially black on the ſides, the belly exceeding all other parts of the body, ſtanding out in ſuch manner, that being ſmitten with a ſtaffe, it yeeldeth a ſound as it were from a vault or hollow place. The head is broad and thick, and the colour thereof on the neather part about the neck is white, that is, ſomewhat pale, the back plain without bunches, and it is ſaid, that there is a little bone growing in their ſides, that hath a vertue to drive away Dogs from him that beareth it about him, and is therefore called *Apocynon*. The whole aſpect of this Toad is ugly and unpleaſant. Some Authors affirm that it carryeth the heart in the neck, and therefore it cannot eaſily be killed, except the throat thereof be cut in the middle. Their liver is very vitious, and cauſeth the whole body to be of ill temperament: And ſome ſay they have two livers. Their milt is very ſmall; and as as for their copulation and egges, they differ nothing from Frogs.

There be many late Writers, which do affirm that there is a precious ſtone in the head of a Toad, whoſe opinions (becauſe they attribute much to the vertue of this ſtone) it is good to examine in this place, that ſo the Reader may be ſatisfied whether to hold it as a fable or as a true matter, exemplifying the powerful working of Almighty God in nature, for there be many that wear theſe ſtones in Rings, being verily perſwaded, that they keep them from all manner of gripings and pains of the belly and the ſmal guts. But the Art (as they term it) is in taking of it out, for they ſay it muſt be taken out of the head alive, before the Toad be dead, with a piece of cloth of the colour of red Scarlet, wherewithal they are much delighted, ſo that while they ſtretch out themſelves as it were in ſport upon that cloth, they caſt out the ſtone of their head, but inſtantly they ſup it up again, unleſſe it be taken from them through ſome ſecret hole in the ſaid cloth, whereby it falleth into a ciſtern or veſſel of water, into the which the Toad dareth not enter, by reaſon of the coldneſſe of the water. Theſe things writeth *Maſſarius*.

Braſavolus ſaith, that he found ſuch a thing in the head of a Toad, but he rather took it to be a bone then a ſtone, the colour whereof was brown, inclining to blackneſſe. Some ſay it is double, namely outwardly a hollow bone, and inwardly a ſtone contained therein, the vertue whereof is ſaid to break, prevent, or cure the ſtone in the bladder. Now how this ſtone ſhould be there ingendered, there are divers opinions alſo, and they ſay that ſtones are ingendered in living creatures two manner of ways, either through heat or extream cold, as in the Snail, Pearch, Crab, *Indian* Tortoyſes and Toads; ſo that by extremity of cold this ſtone ſhould be gotten.

Againſt this opinion the colour of the ſtone is objected, which is ſometimes white, ſometimes brown, or blackiſh, having a citrine or blew ſpot in the middle, ſometimes all green, whereupon is naturally engraven the figure of a Toad, and this ſtone is ſometimes called *Borax*, ſometimes *Crapodine*, and ſometimes *Niſe*, or *Nuſe*, and *Chelonites*. Others do make two kindes of theſe two ſtones, one reſembling a great deal of milk mixed with a little bloud, ſo that the white exceedeth the red, and yet both are apparent and viſible: the other all black, wherein they ſay is the picture of a Toad, with her legs ſpread before and behinde. And it is further affirmed, that if both theſe ſtones be held in ones hand in the preſence of poyſon, it will burn him. The probation of this ſtone is by laying of it to a live Toad, and if ſhe lift up her head againſt it, it is good, but if ſhe run away from it, it is a counterfeit.

Geor. Agricola calleth the greater kinde of theſe ſtones, *Brontia*, and the leſſer and ſmoother ſort of ſtones, *Ceraunie*, although ſome contrary this opinion, ſaying that theſe ſtones *Brantia*, and *Ceraunia*, are bred on the earth by thundering and lightning. Whereas it is ſaid before, that the generation of this ſtone in the Toad proceedeth of cold, that is utterly unpoſſible, for it is deſcribed to be ſo ſolid and firm, as nothing can be more hard, and therefore I cannot aſſent unto that opinion, for unto hard and ſolid things, is required abundance of heat: and again, it is unlikely, that whatſoever this Toad-ſtone be, that there ſhould be any ſtore of them in the world as are every where viſible, if they were to be taken out of the Toads alive, and therefore I rather agree with *Salveldenſis* a *Spaniard*, who thinketh that it is begotten by a certain viſcous ſpume, breathed out upon the head of ſome Toad, by her fellows in the Spring time.

This ſtone is that which in ancient time was called *Batrachites*, and they attribute unto it a vertue beſides the former, namely, for the breaking of the ſtone in the Bladder, and againſt the Falling-ſickneſſe. And they further write, that it is a diſcoverer of preſent poyſon, for in the preſence of poyſon it will change the colour. And this is the ſubſtance of that which is written about this ſtone. Now for my part I dare not conclude either with it, or againſt it, for *Hermolaus*, *Maſſarius*, *Albertus*, *Sylvatius*, and others, are directly for this ſtone ingendered in the brain or head of the Toad: on the other ſide, *Cardan* and *Geſner* confeſſe ſuch a ſtone by name and nature, but they make doubt of the generation of it, as others have delivered; and therefore they being in ſundry opinions, the hearing whereof might confound the Reader, I will refer him for his ſatisfaction unto a Toad, which he may eaſily every day kill: For although when the Toad is dead, the vertue thereof be loſt, which conſiſted in the eye, or blew ſpot in the middle, yet the ſubſtance remaineth, and if the ſtone be found there in ſubſtance, then is the queſtion at an end, but if it be not, then muſt the generation of it be ſought for in ſome other place.

Thus leaving the ſtone of the Toad, we muſt proceed to the other parts of the ſtory, and firſt of all their place of habitation, which for them of the water, is neer the water-ſide, and for them of the earth, in buſhes, hedges, rocks, and holes of the earth, never coming abroad while the Sun ſhineth, for they hate the Sun-ſhine, and their nature cannot endure it, for which cauſe they keep cloſe in their holes in the day time, and in the night they come abroad. Yet ſometimes in rainy weather, and in ſolitary places, they come abroad in the day time. All the Winter time they live under the earth, feeding upon earth, herbs, and worms, and it is ſaid, they eat earth by meaſure, for they eat ſo much every day as they can gripe in their fore-foot, as it were ſizing themſelves, leſt the whole earth ſhould not ſerve them till the Spring. Reſembling herein great rich covetous men, who ever ſpare to ſpend, for fear they ſhall want before they die. And for this cauſe in ancient time the wiſe Painters of

Germany, did picture a woman ſitting upon a Toad, to ſignifie covetouſneſſe. They alſo love to eat Sage; and yet the root of Sage is to them deadly poyſon; They deſtroy Bees, without all danger to themſelves, for they will creep to the holes of their Hives, and there blow in upon the Bees, by which breath they draw them out of the Hive, and ſo deſtroy them as they come out: for this cauſe alſo at the Water-ſide they lie in wait to catch them. When they come to drink in the day time they ſee little or nothing, but in the night time they ſee perfectly, and therefore they come then abroad.

About their generation there are many worthy obſervations in nature; ſometimes they are bred out of the putrefaction and corruption of the earth; it hath alſo been ſeen that out of the aſhes of a Toad burnt, not only one, but many Toads have been regenerated the year following. In the *New-world* there is a Province called *Dariene*, the air whereof is wonderful unwholeſome, becauſe all the Countrey ſtandeth upon rotten mariſhes. It is there obſerved, that when the ſlaves or ſervants water the pavements of the dores, from the drops of water which fall on the right hand, are inſtantly many Toads ingendered, as in other places ſuch drops of water are turned into Gnats. It hath alſo been ſeen, that women conceiving with childe, have likewiſe conceived at the ſame time a Frog, or a Toad, or a Lizard, and therefore *Platearius* ſaith; that thoſe things which are medicines to provoke the menſtruous courſe of women, do alſo bring forth the Secondines. And ſome have called *Bufonem fratrem Salernitanorum, & lacertam fratrem Lombardorum*: that is, a Toad the Brother of the *Salernitans*, and the Lizard the Brother of the *Lombards*: for it hath been ſeen that a woman of *Salernum*, hath at one time brought forth a Boy and a Toad, and therefore he calleth the Toad his Brother; ſo likewiſe a woman of *Lombardy*, a Lizard, and therefove he calleth the Lizard the *Lombards* Brother. And for this cauſe, the women of thoſe Countries, at ſuch time as their childe beginneth to quicken in their womb, do drink the juyce of Parſley and Leeks, to kill ſuch conceptions if any be.

There was a woman newly marryed, and when in the opinion of all ſhe was with childe, in ſtead of a childe ſhe brought forth four little living creatures like Frogs, & yet ſhe remained in good health, but a little while after ſhe felt ſome pain about the rim of her belly, which afterward was eaſed by applying a few remedies. Alſo there was another woman, which together with a Man-childe, in her Secondines did bring forth ſuch another Beaſt; and after that a Merchants wife did the like in *Anconitum*. But what ſhould be the reaſon of theſe ſo ſtrange and unnatural conceptions, I will not take upon me to decide in nature, leſt the Omnipotent hand of God ſhould be wronged, and his moſt ſecret and juſt counſel preſumptuouſly judged and called into queſtion. This we know, that it was propheſied in the Revelation, that Frogs and Locuſts ſhould come out of the Whore of *Babylon*, and the bottomleſſe pit, and therefore ſeeing the ſeat of the Whore of *Babylon* is in *Italy*, it may be that God would have manifeſted the depravation of Chriſtian Religion, beginning among the *Italians*, and there continued in the conjoyned birth of Men and Serpents: for ſurely, none but Devils incarnate, or men conceived of Serpents brood, would ſo ſtiffely ſtand in *Romiſh* error as the *Italians* do, and therefore they ſeem to be more addicted to the errors of their Fathers, (which they ſay is the Religion wherein they were born) then unto the truth of Jeſus Chriſt, which doth unanſwerably detect the pride and vanity of the *Romiſh* faith.

But to leave ſpeaking of the conception of Toads in Women, we will proceed further unto their generation in the ſtomachs and bellies of men, whereof there may more eaſily a reaſon be given then of the former. Now although that in the earth Toads are generated of the putrefied earth and waters, yet ſuch a generation cannot be in the body of man, for although there be much putrefaction in us, yet not ſo much to ingender bones and other organes, ſuch as are in Toads; as for Worms they are all fleſh, and may more eaſily be conceived of the putrefaction in our ſtomachs. But then you will ſay, how comes it to paſſe that in mens ſtomachs there are found Frogs and Toads? I anſwer that this evill hapneth unto ſuch men as drink water, for by drinking of water, a Toads egge may eaſily ſlip into the ſtomach, and there being of a viſcous nature, cleaveth faſt to the rough parts of the ventricle, and it being of a contrary nature to man, can never be digeſted or avoided, and for that cauſe the venom that is in it, never goeth out of the Egge either in operation or in ſubſtance, to poyſon the other parts of the body, but there remaineth until the Egge be formed into a Toad, without doing further harm: and from hence it cometh that Toads are bred in the bodies of men, where they may as well live without air, as they do in the midſt of trees and rocks, and yet afterwards, theſe Toads do kill the bodies they are bred in. For the venom is ſo tempered, that at laſt it worketh when it is come to ripeneſſe, even as we ſee it is almoſt an uſual thing, to take a poyſon, whoſe operation ſhall not be perceived, till many days, weeks, or moneths after.

For the caſting out of ſuch a Toad bred in the body, this medicine is preſcribed: They take a Serpent and bowel him, then they cut off the head and the tail, the reſidue of the body they likewiſe part into ſmall pieces, which they ſeethe in water, and take off the fat which ſwimmeth at the top, which the ſick perſon drinketh, until by vomiting he avoid all the Toads in his ſtomach, afterwards he muſt uſe reſtorative and aromatical medicines. And thus much may ſuffice for the ordinary and extraordinary generation of Toads.

Theſe Toads do not leap as Frogs do, but becauſe of their ſwelling bodies and ſhort legs, their pace is a ſoft creeping pace, yet ſometimes in anger they lift up themſelves, enderouring to do harm, for great is their wrath, obſtinacy, and deſire to be revenged upon their adverſaries, eſpecially the red Toad; for look how much her colour inclineth to redneſſe, ſo much is her wrath and venom more peſtilent. If ſhe take hold of any thing in her mouth, ſhe will never let it go till ſhe die, and many times ſhe ſendeth forth poyſon out of her buttocks or backer parts, wherewithal ſhe infecteth the air, for revenge of them that do anoy her: and it is well obſerved that ſhe knoweth the weakneſſe of her teeth, and therefore for her defence ſhe firſt of all gathereth abundance of air into her body, wherewithal ſhe gre-tly ſwelleth, and then by ſighing uttereth that infected air as neer the perſon that offendeth her as ſhe can, and thus ſhe worketh her revenge, killing by the poyſon of her breath. The colour of this poyſon is like milk, of which I will ſpeak afterward particularly by it ſelf.

A Toad is of a moſt cold temperament, and bad conſtitution of nature, and it uſeth one certain herb wherewithal it preſerveth the ſight, and alſo reſiſteth the poyſon of Spyders, whereof I have heard this credible Hiſtory related, from the mouth of a true honourable man, and one of the moſt charitable Peers of *England*, namely, the good Earl of *Bedford*, and I was requeſted to ſet it down for truth, for it may be juſtified by many now alive that ſaw the ſame.

A ſtory.

It fortuned as the ſaid Earl travailed in *Bedfordſhire*, neer unto a Market-town called *Owbourn*, ſome of his company eſpyed a Toad fighting with a Spyder, under a hedge in a bottom, by the high-way-ſide, whereat they ſtood ſtill, until the Earl their Lord and Maſter came alſo to behold the ſame; and there he ſaw how the Spyder ſtill kept her ſtanding, and the Toad divers times went back from the Spyder, and did eat a piece of an herb, which to his judgement was like a Plantain. At the laſt, the Earl having ſeen the Toad do it often, and ſtill return to the combate againſt the Spyder, he commanded one of his men to go, and with his dagger to cut off that herb, which he performed and brought it away. Preſently after the Toad returned to ſeek it, and not finding it according to her expectation, ſwelled and broke in pieces: for having received poyſon from the Spyder in the combate, nature taught her the vertue of that herb, to expell and drive it out, but wanting the herb, the poyſon did inſtantly work and deſtroy her. And this (as I am informed) was oftentimes related by the Earl of *Bedford* himſelf upon ſundry occaſions, and therefore I am the bolder to inſert it into this ſtory.

A ſtory.

I do the more eaſily believe it, becauſe of another like ſtory related by *Eraſmus* in his Book of Friendſhip, hapning likewiſe in *England*, in manner as followeth. There was a Monk who had in his chamber divers bundles of green ruſhes, wherewithal he uſed to ſtrow his chamber at his pleaſure, it hapned on a day after dinner, that he fell aſleep upon one of thoſe bundles of ruſhes, with his face upward, and while he there ſlept, a great Toad came and ſate upon his lips, beſtriding him in ſuch manner as his whole mouth was covered. Now when his fellows ſaw it, they were at their wits end, for to pull away the Toad was an unavoidable death, but to ſuffer her to ſtand ſtill upon his mouth, was a thing more cruel then death: and therefore one of them eſpying a Spiders web in the window, wherein was a great Spyder, he did adviſe that the Monk ſhould be carryed to that window, and laid with his face upward right underneath the Spyders web, which was preſently accompliſhed. And aſſoon as the Spyder ſaw her adverſary the Toad, ſhe preſently wove her thred, and deſcended down upon the Toad, at the firſt meeting whereof the Spyder wounded the Toad, ſo that it ſwelled, and at the ſecond meeting it ſwelled more, but at the third time the Spyder kild the Toad, and ſo became grateful to her Hoſt which did nouriſh her in his Chamber; for at the third time the Toad leaped off from the mans mouth, and ſwelled to death; but the man was preſerved whole and alive. And thus much may ſuffice for the antipathy of nature betwixt the Toad and the Spyder.

The Mole is alſo an enemy to the Toad, for as *Albertus* writeth, he himſelf ſaw a Toad crying above the earth very bitterly, for a Mole did hold her faſt by the leg within the earth, labouring to pull her in again, while the other ſtrove to get out of her teeth, and ſo on the other ſide, the Toads do eat the Moles when they be dead. They are alſo at variance with the Lizard, and all kindes of Serpents, and whenſoever it receiveth any wound by them, it cureth it ſelf by eating of Plantain. The Cat doth alſo kill Serpents and Toads, but eateth them not, and unleſſe ſhe preſently drink, ſhe dyeth for it. The Buzard and the Hawk are deſtroyers of Toads, but the Stork never deſtroyeth a Toad to eat it, except in extremity of famine, whereby is gathered the venomous nature of the Toad.

Now to conclude, the premiſſes conſidered which have been ſaid of the Toad, the uſes that are to follow are not many, except thoſe which are already related in the Frog. When the *Spaniards* were in *Bragua*, an Iſland of the *New-found-world*, they were brought to ſuch extremity of famine, that a ſick man amongſt them was forced to eat two Toads, which he bought for two pieces of gold-lace, worth in *Spaniſh* money ſix Duckats. I do marvel why in ancient time the *Kings of* France *gave in their Arms the three Toads in a yellow field, the which were afterwards changed by* Clodoveus *into three Flower-de-luces in a field Azure, as Arms ſent unto him from Heaven.*

When the *Trojans* dwelt neer *Mæotis*, after the deſtruction of *Troy*, they were very much annoyed by the *Gothes*, wherefore *Marcomirus* their King, determined to leave that Countrey, and to ſeek ſome where elſe a more quiet habitation. Being thus minded, he was admoniſhed by an Oracle that he ſhould go and dwell in that Countrey where the River *Rhene* falleth into the Sea, and he was alſo ſtirred up to take upon him that journey, by a certain Magitian-woman, called *Alrunna*, for this cunning Woman cauſed in the night time a deformed apparition to come unto him having three heads, one of an Eagle, another of a Toad, and the third of a Lyon, and the Eagles head did ſpeak unto him in this manner, *Genus tuum ô Marcomire opprimet me, & conculcabit Leonem, & interficiet bufonem*; that is to ſay, Thy ſtock or poſterity, O *Marcomirus*, ſhall oppreſſe me, it ſhall tread the Lyon under foot, and kill the Toad. By which words he gathered, that his poſterity ſhould rule over the *Romans*, ſignified by the Eagle; and over the *Germans*, ſignified by the Lyon; and over the *French*, ſignified by the Toad, becauſe the Toad, as we have ſaid, was the ancient Arms of *France*.

It is an opinion held by ſome Writers, that the Weaſels of the water do ingender in copulation with the Toads of the water, for in their mouths, and feet of their belly, they do reſemble them: Whereupon theſe verſes were made;

Buſones gigno putrida tellure ſepulta,
Humores pluvii forte quod ambo ſumus,
Humet is & friget, mea ſic vis humet & alget,
Cum perit in terra qui prius ignis erat.

Which may be Engliſhed thus;

Buryed in rotten earth, forth Toads I bring,
Perhaps becauſe we both are made of rain,
That's moiſt and cold, moiſt I and ever freezing,
When in the earth, that force from fire came.

And thus we will deſcend to diſcourſe of the Toads poyſon, and of the ſpecial remedies appointed for the ſame. Firſt therefore, all manner of Toads, both of the earth and of the water are venomous, although it be held that the Toads of the earth are more poyſonful then the Toads of the water, except thoſe Toads of the water which do receive infection or poyſon from the water, for ſome waters are venomous. But the Toads of the land, which do deſcend into the mariſhes, and ſo live in both elements, are moſt venomous, and the hotter the Countrey is, the more full are they of poyſon.

The Women-witches of ancient time which killed by poyſoning, did much uſe Toads in their confections, which cauſed the Poet in his verſes to write as followeth.

Occurrit Matrona potens, quæ molle Calenum
Porrectura viro, miſcet ſitiente rubetam.

Which may be Engliſhed thus;

There came a rich Matron, who mixed Calen Wine,
With poyſon of Toads to kill her Spouſe, O deadly crime.

And again in another place,

———*Funus promittere patris*
Nec volo nec poſſum ranarum, in viſcera nunquam
Inſpexi.———

In Engliſh thus;

I can nor will of Fathers death a promiſe make,
For of Toads poyſon I never yet a view did take.

When an Aſp hath eaten a Toad, their biting is incurable, and the Bears of *Pamphilia* and *Cylicia*, being killed by men after that they have eaten Salamanders or Toads, do poyſon their eaters. We have ſaid already, that a Toad hath two livers, and although both of them are corrupted, yet the one of them is ſaid to be full of poyſon, and the other to reſiſt poyſon. The biting of a Toad, although it be ſeldom, yet it is venomous, and cauſeth the body to ſwell and to break, either by Impoſtumation, or otherwiſe, againſt which is to be applyed common Antidotes, as womens Milk, Triacle, roots of Sea-holm, and ſuch other things. The ſpittle alſo of Toads is venomous, for if it fall upon a man, it cauſeth all his hair to fall off from his head; againſt this evil *Paracelſus* preſcribeth a plaiſter of earth, mixed with the ſpittle of a man.

The common people do call that humor which cometh out of the buttocks of a Toad when ſhe ſwelleth, the urine of a Toad, and a man moiſtned with the ſame, be-piſſed with a Toad; but the beſt remedy for this evil, is the milk of a woman, for as it reſembleth the poyſon in colour, ſo doth it reſiſt it in nature. The bodies of Toads dryed, and ſo drunk in Wine after they be beaten to powder, are a moſt ſtrong poyſon, againſt which and all other ſuch poyſon of Toads, it is good to take Plantain and black Hellebore, Sea-crabs dryed to powder and drunk, the ſtalks of Dogs-tongue, the powder of the right horn of a Hart, the milt, ſpleen, and heart of a Toad. Alſo certain fiſhes called Shel-crabs, the bloud of the Sea-tortoiſe mixed with Wine, Cummin, and the rennet of a Hare. Alſo the bloud of a Tortoiſe of the land mixed with Barley-meal, and the quinteſſence of Triacle and Oyl of Scorpions, all theſe things are very precious againſt the poyſon of Serpents and Toads.

We have promiſed in the ſtory of the Frog, to expreſſe in this place ſuch remedies, as the learned Phyſitians have obſerved for the cure of the poyſon of Frogs. Firſt therefore the poyſon of the Frog cauſeth ſwelling in the body, depelleth the colour, bringeth difficulty of breathing, maketh the breath ſtrong, and an involuntary profuſion of ſeed, with a general dulneſſe and reſtineſſe of body: for remedy whereof, let the party be inforced to vomit by drinking ſweet Wine, and two drams of the powder of the root of Reeds or Cypreſſe. Alſo he muſt be inforced to walking and running, beſides daily waſhing. But if a Fever follow the poyſon or burning in the extremities, let the vomit be of water and Oyl, or Wine and Pitch; or let him drink the bloud of a Sea-tortoiſe, mixed with Cummine, and the rennet of a Hare, or elſe ſweat in a Furnace or Hot-houſe a long time: beſides many other ſuch like remedies, which every Phyſitian, both by experience and reading, is able to miniſter in caſes of neceſſity, and therefore I will ſpare my further pains from expreſſing them in this place, and paſſe on to the medicinal vertues of the Toad, and ſo conclude this hiſtory.

We have ſhewed already that the Toad is a cold creature, and therefore the ſame ſod in water, and the body anointed therewith, cauſeth hair to fall off from the members ſo anointed. There is a medicine much commended againſt the Gowt, which is this: Take ſix pound of the roots of wilde Cucumber, ſix pound of ſweet Oyl, of the marrow of Harts, Turpentine, and Wax, of either ſix ounces, and ſix Toads alive, the which Toads muſt be bored through the foot, and hanged by a thred in the Oyl until they grow yellow, then take them out of the Oyl by the threds, and put into the ſaid Oyl the ſliced root of a Cucumber, and there let it ſeethe until al the vertue be left in the Oyl. Afterwards melt the Wax and Turpentine, and then put them all together in a glaſſe, ſo uſe them morning and evening againſt the Gowt, *Sciatica*, and pains of the ſinews, and it hath been ſeen that they which have lyen long ſick, have been cured thereof, and grown perfectly well and able to walk. Some have added unto this medicine Oyl of Saffron, *Opobalſamum*, bloud of Tortoiſes, Oyl of Sabine, Swines greaſe, Quickſilver, and Oyl of Bays.

For the ſcabs of Horſes, they take a Toad killed in wine and water, and ſo ſod in a brazen veſſel, and afterwards anoint the Horſe with the liquor thereof. It is alſo ſaid that Toads dryed in ſmoak, or any piece of them carryed about one in a linnen cloth, do ſtay the bleeding at the noſe. And this *Frederick* the Duke of *Saxony*, was wont to practiſe in this manner; he had ever a Toad pierced through with a piece of wood, which Toad was dryed in the ſmoak or ſhadow, this he rowled in a linnen cloth; and when he came to a man bleeding at the noſe, he cauſed him to hold it faſt in his hand until it waxed hot, and then would the bloud be ſtayed. Whereof the Phyſitians could never give any reaſon, except horror and fear conſtrained the bloud to run into his proper place, through fear of a Beaſt ſo contrary to humane nature. The powder alſo of a Toad is ſaid to have the ſame vertue, according to this verſe;

Buffo uſtus ſiſtit naturæ dote cruorem.

In Engliſh thus;

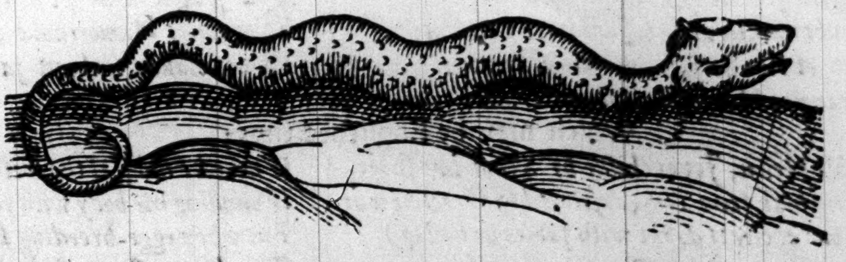
A Toad that is burned to aſhes and duſt,
Stays bleeding by gift of Nature juſt.

The skin of a Toad, and ſhell of a Tortoyſe, either burned or dryed to powder, cureth the Fiſtulaes: Some add hereunto the root of Laurel and Hen-dung, Salt, and Oyl of Mallows. The eyes of the Toad are received in Ointment againſt the Worms of the belly. And thus much ſhall ſuffice to have ſpoken of the hiſtory of the Toad and Frogs.

Of the GREEN SERPENTS.

IN *Valois* there are certain Green-ſerpents, which of their color are called *Grunling*, and I take them to be the ſame which *Heſychius* called *Saurita*, and *Pliny* by a kinde of excellency, Snakes, of whom we ſhall ſpeak afterwards, for I have no more to ſay of them at this preſent, but that they are very venomous. And it may be that of theſe came the common proverb, *Latet Anguis ſub herba*, under the green herb lyeth the Green-ſnake, for it is a friendly admonition unto us to beware of a falſhood covered with a truth like unto it.

Of the HÆMORRHE.



THis Serpent hath ſuch a name given unto it, as the effect of his biting worketh in the bodies of men, for it is called in *Latine*, *Hæmorrhous*, to ſignifie unto us the male, and *Hæmorrhois*, to ſignifie the female, both of them being derived from the *Greek* word *Aima*, which ſiguifieth bloud, and *Reo*, which ſignifieth to flow, becauſe whomſoever it biteth, it maketh in a continual bleeding ſweat, with extremity of pain until it die. It is alſo called *Affodius*, and *Afudius*, *Sabrine*, and *Halſordius*, or *Alſordius*, which are but corrupted barbarous names from the true and firſt word *Hæmorrhous*.

Pliny.

It is doubtful whether this be to be aſcribed to the Aſps or to the Vipers, for *Iſidorus* ſaith it is a kinde Aſp, and *Ælianus*, a kinde of Viper. They are of a ſandy colour, and in length not paſt one foot, or three handfuls, whoſe tail is very ſharp or ſmall, their eyes are of a fiery-flaming colour, their head ſmall, but hath upon it the appearance of horns. When they goe, they go ſtraight and ſlowly, as it were halting and wearily, whoſe pace is thus deſcribed by *Nicander*;

——————Et inſtar
Ipſius obliquæ ſua parvula terga Ceraſtæ
Claudicat & ex medio videas appellere dorſo
Parvum navigium, terit imam lubrica terram
Alvus, & haud alio tacitè trahit ilia motu,
Ac per Arundineum ſi tranſeat illa grabatum.

In Engliſh thus;

And like the Horned-ſerpent, ſo trails this elf on land,
As though on back a little boat it drave,
His ſliding belly makes paths be ſeen in ſand,
As when by bed of Reeds ſhe goes her life to ſave.

The ſcales of this Serpent are rough and ſharp, for which cauſe they make a noyſe when they goe on the earth; the female reſteth her ſelf upon her lower part neer her tayl, creeping altogether upon her belly, and never holdeth up her head, but the male when he goeth holdeth up his head: their bodies are all ſet over with black ſpots, and themſelves are thus paraphrſtically deſcribed by *Nicander*;

Unum longa pedem, totoque gracillima tractu,
Ignea quandoque eſt, quandoque eſt candida forma,
Conſtrictumque ſatis collum, et tenuiſſima cauda.
Bina ſuper gelidos oculos frons cornua profert,
Splendentem quadam radiorum albentia luce,
Silveſtres ut apes, populatriceſque Locuſtæ:
Inſuper horribile ac aſprum caput horret.

Which may be Engliſhed in this manner following;

On foot in length, and ſlender all along,
Sometime of fiery hue, ſometime milk-white it is,
The neck bound in, and tayl moſt thin and ſtrong,
Whoſe fore-head hath two horns above cold eyes:
Which in their light reſemble ſhining beams,
Like Bees full wilde, or Locuſts ſpoylers bred,
But yet to look upon all horrible in ſeams,
For why? the cruel Bore they ſhew in head.

They keep in rocks, and ſtony places of the houſes and earth, making their dens winding and hanging, according to theſe Verſes;

Rimoſas colit illa Petras, ſibique aſpera tecta,
Et modice pendens facit, inflexumque cubile.

In Engliſh thus;

The chinks of Rocks and paſſages in ſtone
They dwell, wherein their lodgings bare,
A little hanging made for every one,
And bending too their ſleepy harbours are.

It is ſaid that *Canobus* the Governour of *Menelaus*, chanced to fall upon this Serpent, in revenge whereof *Helen* his charge, the wife of *Menelaus* broke his back-bone, and that ever ſince that time they creep lamely, and as it were without loyns; which fable is excellently thus deſcribed by *Nicander*;

Quondam animoſa Helene cygni Jovis inclyta proles
Everſa rediens Troia (niſi vana vetuſtas)
Huic indignata eſt generi, Pharias ut ad oras
Venit, & adverſi declinans flamina venti,
Fluctivagam ſtatuit juxta Nili oſtia claſſem.
Namque ubi nauclerus ſe feſſum fortè Canobus
Sterneret, et bibulis fuſus dormiret arenis:
Læſa venenoſos Hæmorrhois impulit ictus,
Illatamque tulit letali dente quietem:
Protinus oviperæ cernens id filia Ledæ,
Oppreſſæ medium ſerpenti fervida dorſum
Infregit, tritæque excuſſit vinculæ ſpinæ,
Quæ fragili illius ſic dempta è corpore fugit,
Et graciles Hæmorrhoiæ, obliquique Ceraſtæ
Ex hoc clauda trahunt jam ſoli tempore membra.

Which may be Engliſhed thus;

Once noble Helen, Joves childe by Swan-like ſhape,
Returning back from Troy, deſtroyed by Grecian war,
(If that our ancients do not with fables us beclap)
This race was envied by Pharias anger farre,
When to his ſhores for ſafety they did come,
Declining rage of bluſtring windy ſeas,
Water-biding-Navy at Nilus mouth gan run,
Where Canobus all tyred, fainted for ſome eaſe:
For there this Pilot, or Maſter of the Fleet,
Did haſt from boat to ſleep in drety ſand,
Where he did feel the teeth of Hæmorrhe deep,
Wounding his body with poyſon, deaths own hand.
But when egge-breeding Ledaes wench eſpyed
This harm, ſhe preſt the Serpents back with ſtroke,
Whereby the bands thereof were all untied,
Which in juſt wrath for juſt revenge ſhe broke.
So ever ſince out of this Serpents frame
And body they are taken, which is the cauſe
That Ceraſts and lean Hæmorrhs are ever lame,
Drawing their parts on earth by natures lawes.

They which are ſtung with theſe Hæmorrhs, do ſuffer very intolerable torments, for out of the wound continually floweth bloud, and the excrements alſo that cometh out of the belly are bloody, or ſometimes little rouls of bloud in ſtead of excrements. The colour of the place bitten is black, or of a dead bloudy colour, out of which nothing floweth at the beginning but a certain watery humour, then followeth pain in the ſtomack, and difficulty of breathing. Laſtly, the powers of the body are broken, and opened, ſo that out of the mouth, gums, ears, eyes, fingers ends, nayls of the feet, and privy parts, continually iſſueth bloud, untill a cramp alſo come, and then followeth death, as we read in *Lucan* of one *Tellus* a young noble man, ſlain by this Serpent, deſcribed as followeth;

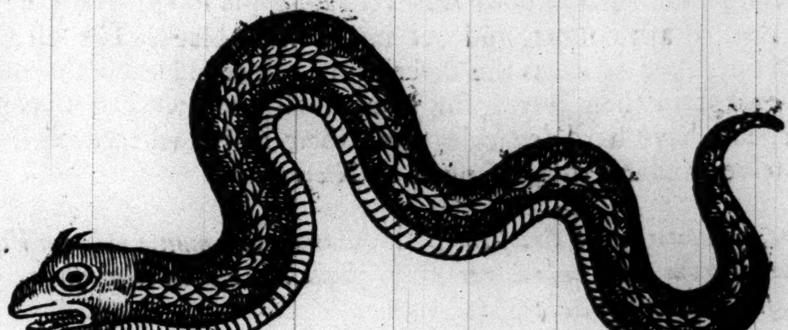
Impreſſit dentes Hæmorrhois aſpera Tullo
Magnanimo juveni, miratorique Catonis:
Utque ſolet pariter totis ſe effundere ſignis
Coricii preſſura croci: ſic omnia membra
Emiſere ſimul rutilum pro ſanguine virus.
Sanguis erant lacbryma: quacunque foramina novit
Humor, ab iis largus manat cruor, ora redundant,
Et patulæ nares, ſudor rubet, omnia plenis,
Membra fluunt venis: totum eſt pro vulnere corpus.

In Engliſh thus;

The Hæmorrhe fierce, in noble Tullus faſtened teeth
That valiant youth, great Catoes ſcholar deer:
And as when Saffron by Corycians skeeth
Is preſt, and in his colour on them all appear:
So all his parts ſent forth a poyſon red
In ſtead of bloud: Nay all in bloud went round.
Bloud was his tears, all paſſages of it were ſped,
For out of mouth and ears did bloud abound.
Bloud was his ſweat, each part his vein out-bleeds,
And all the body bloud that one wound feeds.

The cure of this Serpent, in the opinion of the Ancients, was thought impoſſible, as writeth *Dioſcorides*; and thereof they complain very much, uſing only common remedies, as ſcarification, uſtions, ſharp meats, and ſuch things as are already remembred in the cure of the Dipſas. But beſides theſe they uſe Vine-leaves, firſt bruiſed and then ſod with Honey: they take alſo the head of this Serpent and burn it to powder, and ſo drink it, or elſe Garlick with Oyl of Flower-de-luce, they give them alſo to eat Reiſins of the Sun. And beſides, they reſiſt the eruption of the bloud, with plaiſters laid to the place bitten, made of Vine-leaves and Honey, or the leaves of Purſlane and Barley-meal. But before their urine turn bloudy, let them eat much Garlick ſtamped, and mixed with Oyl to cauſe them to vomit, and drink wine delayed with water, then let the wound be waſhed with cold water, and the bladder continually fomented with hot Spunges. Some do make the cure of it like the cure of the Viper, and they preſcribe them to eat hard Egges with Salt fiſh, and beſides, the ſeed of Radiſh, the juice of Poppy, with the roots of Lilly, alſo Daffadil, and Rue, Trefolie, Caſſia, Opoponax, and Cinnamon in potion: and to conclude, the flowers and buds of the buſh are very profitable againſt the biting of the Hæmorrhe, and ſo I end the hiſtory of this Serpent.

Of the Horned SERPENT.



THis Serpent becauſe of his Horns (although it be a kinde of Viper) is called in *Greek Keraſtes*, and from thence cometh the *Latine* word *Ceraſtes*, and the *Arabian*, *Ceruſt*, and *Ceruſtes*. It is called alſo in *Latine*, *Ceriſtalis*, *Criſtalis*, *Sirtalis*, and *Triſtalis*. All which are corrupted words, derived from *Ceraſtes*, or elſe from one another, and therefore I think it not fit to ſtand upon them. The *Hebrewes* call it *Schephiphon*, the *Italians*, *Ceraſtes*, the *Germans*, *En geburnte ſchlang*; the *French*, *Un Ceraſte*, *un ſerpent Cornu*, that is, a horned Serpent; and therefore I have ſo called it in *Engliſh*, imitating herein both the *French* and *Germans*.

I will not ſtand about the difference of Authors, whether this Serpent be to be referred to the Aſps or to the Vipers, for it is not a point materiall, and therefore I will proceed to the deſcription of his nature, that by his whole hiſtory, the Reader may chooſe whether he will account him a ſubordinate kinde unto others, or elſe a principall of himſelf. It is an *African* Serpent, bred in the *Lybian* ſandy ſeas, places not inhabited by men, for the huge Mountains of ſands are ſo often moved by the windes, that it is not only impoſſible for men to dwell there, but alſo very dangerous and perilous to travel through them, for that many times whole troops of men and cattell, are in an inſtant overwhelmed and buryed in thoſe ſands. And this is a wonderfull work of God, that thoſe places which are leaſt habitable for man, are moſt of all annoyed with the moſt dangerous biting Serpents.

It is alſo ſaid, that once theſe Horned Serpents departed out of *Lybia* into *Egypt*, where they depopulated all the Countrey. Their habitation is neer the high-wayes, in the ſands, and under Cart-wheels: and when they goe, they make both a ſound with their motion, and alſo a furrow in the earth, according to the ſaying of *Nicander*;

Ex iis alter echis velocibus obvia ſpinis,
Recto terga tibi prolixus tramite ducit,
Sed medio diffuſius hic ceraſtes ſe corpore volvit:
Curvum errans per iter, reſonantibus aſpera ſquamis.
Qualiter æquoreo longiſſima gurgite navis,
Quam violentus agit nunc huc, nunc Africus illuc,
Pellitur, et laterum gemebunda fragore ſuorum
Extra ſulcandas ſinuoſe fluctuat undas.

Which may be Engliſhed thus;

Of theſe the Viper with ſwiſt bones thee meets,
Trayling her back in path direct and ſtrait,
The Ceraſt more diffuſed in way thee greets
With crooked turning, on ſcales make ſounds full great:
Like as a ſhip toſſed by the Weſtern winde,
Sounds afarre off, moved now here, now there,
So that by noyſe of ſhrilling ſides we finde
His furrowes turned in Seas and water ſphere.

The quantity of this horned Serpent is not great, it exceedeth not two cubits in length; the colour of the body is branded like ſand, yet mingled with another pale white colour, as is to be ſeen in a Hares skin. Upon the head there are two horns, and ſometimes four, for which occaſion it hath received the name *Ceraſtes*, and with theſe horns they deceive Birds; for when they are hungry, they cover their bodies in ſand, and only leave their horns uncovered to move above the earth, which when the Birds ſee, taking them to be Worms, they light upon them, and ſo are devoured by the Serpent. The teeth of this Serpent are like the teeth of a Viper, and they ſtand equall, and not crooked: In ſtead of a back-bone they have a griſtle throughout their body, which maketh them more flexible and apt to bend every way: for indeed they are more flexible then any other Serpent. They have certain red ſtrakes croſſe their back, like a Crocodile of the earth, and the skins of ſuch as are bred in *Egypt* are very ſoft, ſtretching like a Cheverell-glove, both in length and breadth, as it did appear by a certain skin taken off from one being dead; for being ſtuffed with Hay, it ſhewed much greater then it was being alive, but in other Countreys the skins are not ſo.

I have heard this Hiſtory of three of theſe Serpents brought out of *Turkey*, and given to a Noble man of *Venice* alive, who preſerved them alive in a great Glaſſe (made of purpoſe) upon ſand, in that Glaſſe neer the fire: The deſcription as it here followeth, was taken by *John Falconer*, an *Engliſh* Travailer, ſaying. They were three in number, whereof one was thrice ſo big as the other two, and that was a female, and ſhe was ſaid to be their Mother; ſhe had laid at that time in the ſands four or five Egges, about the bigneſſe of Pigeons Egges. She was in length three foot, but in breadth or quantity almoſt ſo big as a mans Arm: her head was flat, and broad as two fingers, the apple of the eye black, all the other part being white.

Out of her eye-lids grew two horns, but they were ſhort ones, and thoſe were truly Horns, and not fleſh. The neck compared with the body was very long and ſmall, all the upper part of the skin was covered with ſcales, of aſh-colour, and yet mixed with black. The tail is at it were brown when it was ſtretched out. And this was the deſcription of the old one: the other two being like to her in all things, except in their horns, for being ſmall, they were not yet grown. Generally, all theſe horned Serpents have hard dry ſcales upon their belly, wherewithall they make a noyſe when they go themſelves, and it is thus deſcribed by *Nicander*;

Nunc potes actutum, inſidiatoremque Ceraſten
Noſcere, vipereum veluti genus, huic quia diſpar
Non is corpus habet, ſed qnatuor aut duo profert
Cornua, cum mutila videatur Vipera fronte.
Squalidus albenti color eſt.

In Engliſh thus;

You well may know the treacher Ceraſts noyſe,
A Viper-kinde, whoſe bodies much agree,
Yet theſe four horns and brandy colour, poyſe,
Where Viper none, but forehead plain we ſee.

There is no Serpent except the Viper that can ſo long indure thirſt as this horned Serpent, for they ſeldome or never drink; and therefore I think they are of a Vipers kinde: for beſides this alſo it is obſerved, that their young ones do come in and out of their bellies as Vipers doe: They live in hatred with all kinde of Serpents, and eſpecially with Spiders. The Hawes of *Ægypt* alſo do deſtroy horned Serpents and Scorpions: but about *Thebes* in *Ægypt* there are certain ſacred Snakes (as they are termed) which have horns on their head, and theſe are harmleſſe unto men and beaſts, otherwiſe all theſe Serpents are virulent and violent againſt all creatures, eſpecially men: yet there be certain men in *Lybia* called *Pſilli*, which are in a league, or rather in a naturall concord with horned Serpents. For if they be bitten by them at any time, they receive no hurt at all: and beſides, if they be brought unto any man that is bitten with one of theſe Serpents, before the poyſon be ſpread all over his body, they help and cure him, for if they finde him but lightly hurt, they only ſpit upon the wound, and ſo mitigate the pain, but if they finde him more deeply hurt, then they take much water within their teeth, and firſt waſh their own mouth with it, then ſpit out the water into a pot, and make the ſick man to drink it up. Laſtly, if the poyſon be yet ſtrong, they lay their naked bodies upon the naked poyſoned body, and ſo break the force of the poyſon. And this is thus deſcribed by the Poet, ſaying,

Audivi Lybicos Pſyllos, quos aſpera Sirtis
Serpentumque ferax patria alit populos,
Non ictu inflictum diro, morſuve venenum
Lædere: quin læſis ferre & opem reliquis,
Non vi radicum proprio, ſed corpore juncto.

That is to ſay,

The Lybian Pſylli, which Serpent-breeding Syrtes dwell
As I have heard, do cure poyſon, ſtings, and bites,
Nor hurt themſelves, but it in other quell:
By no roots force, but joyning bodies quites.

When a horned Serpent hath bitten a man or beaſt, firſt about the wound there groweth hardneſſe, and then puſtules. Laſtly, black, earthy and pale matter: the genital member ſtandeth out ſtraight and never falleth, he falleth mad, his eyes grow dim, and his nerves immanuable, and upon the head of the wound groweth a ſcab like the head of a Nail, and continually pricking, like the pricking of Needles: And becauſe this Serpent is immoderately dry, therefore the poyſon is moſt pernicious; for if it be not holpen within nine dayes, the patient cannot eſcape death. The cure muſt be firſt by cutting away the fleſh unto the bone, where the wound is, or elſe the whole member if it can be, then lay upon the wound Goats dung ſod with Vinegar or Garlike, and Vinegar or Barley-meal, or the juice of Cedar, Rue, or Nep, with Salt and Honey, or Pitch and Barley-meal, and ſuch-like things outwardly: inwardly Daffadil and Rue in drink, Radiſh-ſeed, *Indian* Cummin, with wine and *Caſtoreum*, and alſo Calamint, and every thing that procureth vomit. And thus much for the deſcription of the Horned Serpent.

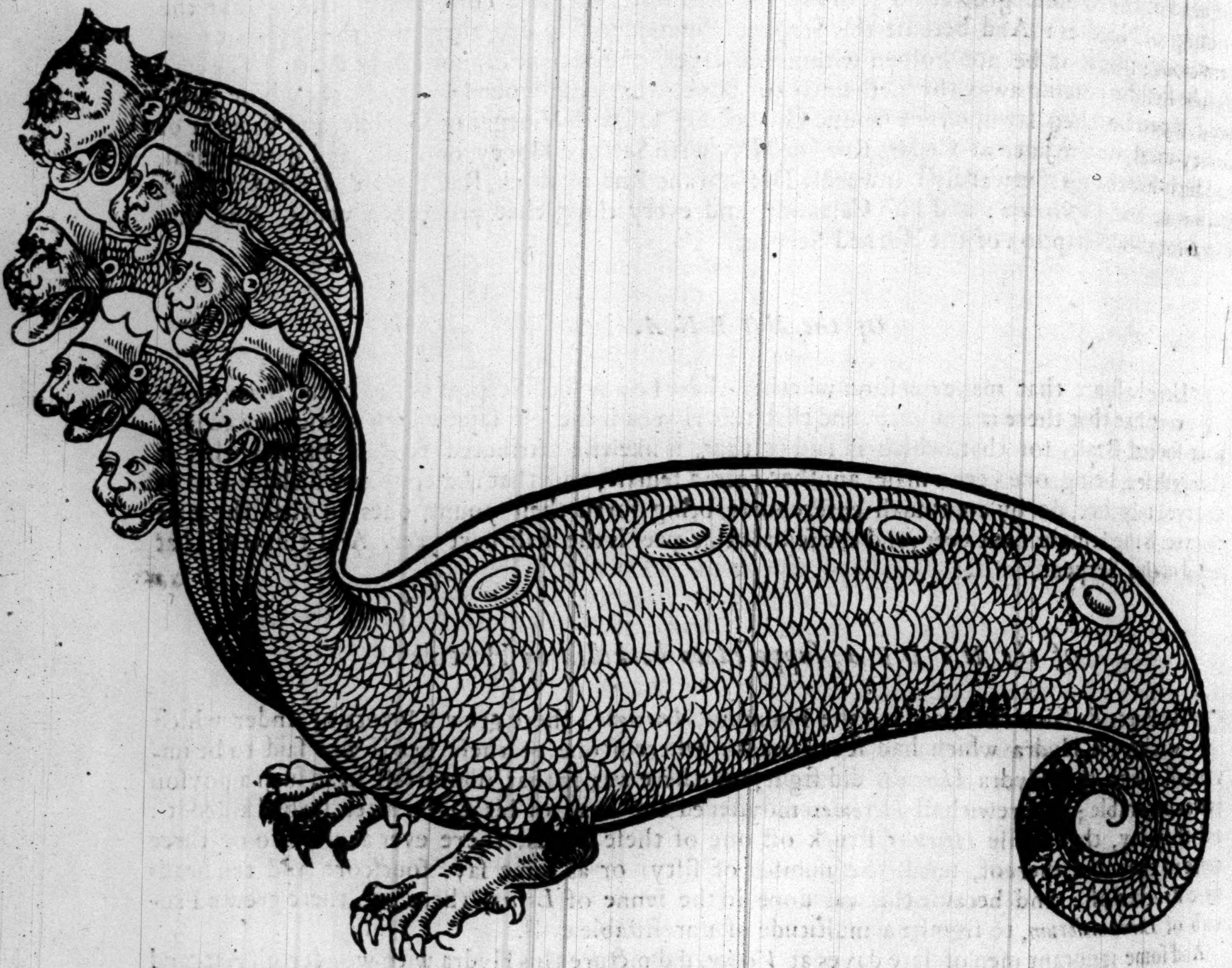
Of the HYENA.

THere be ſome that make queſtion whether there be any ſuch Serpent as this or no, for it is not very like that there is any ſuch, and that this Hyæna is the ſelf ſame which is deſcribed to be a Four-footed Beaſt, for that which is ſaid of that, is likewiſe attributed to this: namely, that it changeth ſex, being one yeer a male, another yeer a female, and that the couples which ſeem to be marryed together, do by continuall entercourſe, bring forth their young ones, ſo that the male this yeer is the female next yeer, and the female this yeer is the male next yeer. And this is all that is ſaid of this Serpent.

Of the HYDRA, *ſuppoſed to be killed by* Hercules.

THe Poets do fain, that neer to the Fountain *Amymona*, there grew a Plantain, under which was bred a Hydra which had ſeven heads: whereof one of theſe heads was ſaid to be immortall: with this Hydra *Hercules* did fight; for there was in that immortall head ſuch a poyſon as was uncurable; wherewithall *Hercules* moyſtened the head of his Darts after he had killed it: and they ſay, that while *Hercules* ſtruck off one of theſe heads, there ever aroſe two or three more in the room thereof, untill the number of fifty, or as ſome ſay, fourſcore and ten heads were ſtrucken off: and becauſe this was done in the fenne of *Lerna*, therefore there grew a Proverb of *Lerna malorum*, to ſignifie a multitude of unreſiſtable evils.

And ſome ignorant men of late dayes at *Venice*, did picture this Hydra with wonderfull Art, and ſet it forth to the people to be ſeen, as though it had been a true carkaſe, with this inſcription. In the year of Chriſts incarnation, 550. about the moneth of *January*, this monſtrous Serpent was brought out of *Turkey* to *Venice*, and afterwards given to the *French* King; it was eſteemed to be worth 6000. Ducats. Theſe Monſters ſignifie the mutation or change of worldly affairs, but (I truſt ſaid the Author of the inſcription, who ſeemed to be a *German*) the whole Chriſtian World is ſo afflicted that there is no more evil that can happen to the Chriſtian World, except deſtruction; and therefore I hope that theſe Monſters do not foreſhew any evil to the Chriſtians. Therefore ſeeing the *Turkiſh* Empire is grown to that height, in which eſtate all other former Kingdomes fell, I may divine and propheſie that the danger threatned hereby, belongeth to the *Turks*, and not unto us, in whoſe Government this Monſter was found to be bred: and the hinder part of his head ſeemeth to reſemble a *Turks* Cap. Thus far this inſcribing Diviner. But this fellow ought firſt of all to have enquired about the truth of this Picture, whether it were ſincere or counterfeit, before he had given his judgement upon it: For that there ſhould be ſuch a Serpent with ſeven heads, I think it unpoſſible, and no more to be beleeved and credited, then that *Caſtor* and *Pollux* were conceived in an Egge, or that *Pluto* is the GOD of Hell, or that armed men were created out of Dragons teeth, or that *Vulcan* made *Achilles* his Armour, or that *Venus* was wounded by *Diomedes*; or that *Ulyſſes* was carryed in Bottles, ſo true I think is the ſhape of this Monſter: for the head, ears, tongue, noſe, and face of this Monſter, do altogether degenerate from all kindes of Serpents, which is not uſuall in Monſters, but the fore-parts do at moſt times reſemble the kinde to which it belongeth; and therefore if it had not been an unskilfull Painters device, he might have framed it in a better faſhion, and more credible to the world. But let it be as it is, how doth he know that this evil doth more belong to the *Turks* then to the Chriſtians? For ſhall we be ſo blinde and flatter our ſelves ſo far, as not to acknowledge our ſins, but to lay all the tokens of judgement upon our adverſaries? But if there appeared in us any repentance or amendment of thoſe faults, for which God hath ſuffered in his juſtice, that impious Tyrant and Tyrannicall Government to prevail againſt Chriſtians, then we might think that GOD would look mercifully upon us, and avert his wrath from us upon our enemies. But with ſorrow and grief be it ſpoken, all the Kings and people of *Chriſtendome*, do directly go forward without ſtumbling in thoſe vile courſes, and odious crying ſins, for which God hath ſet up the *Turks* againſt former ages, and therefore we have no cauſe to hope that ever this rod ſhall be caſt into the fire, untill the chaſtiſement of Gods children have procured their amendment, and if no amendment, then all the powers of heaven (the bleſſed Trinity excepted) cannot keep *Chriſtendome* from ruine and deſtruction, which God of his infinite mercy turn away from us.



To turn again to the ſtory of the Hydra, I have alſo heard, that in *Venice* in the Dukes treaſury, among the rare Monuments of that City, there is preſerved a Serpent with ſeven heads, which if it be true, it is the more probable that there is a Hydra, and then the Poets were not altogether deceived, that ſay, *Hercules* killed ſuch a one. This Hydra which *Hercules* ſlew, they ſay was ingendred betwixt *Echidna* and *Typhaon*, and nouriſhed by *Juno* in *Lerna*, in hatred of *Hercules*: and they ſay further, that when he came to kill it, there came a Crab or Cancer to help the Hydra againſt *Hercules*, who inſtantly called upon *Iolaus* for help, and ſo *Iolaus* ſlew the Crab, and *Hercules* the Hydra.

Phaephatus maketh the ſtory of *Hercules* by killing the Hydra, to be a meer allegory, ſaying, that the Hydra was a Caſtle kept by fifty men, the King whereof was called *Lernus*, who was aſſiſted by a Noble man (called *Cancer*) againſt the aſſaults of *Hercules*, and that *Hercules* by the help of *Iolaus*, King of the *Thebanes*, overcame that King and Caſtle. Other ſay that *Lerna* and *Hydra* ſignifie the two kindes of Envy, diſtinguiſhed by *Invidia*, and *Invidentia*, in himſelf, which ariſe out of the monſtrous filthy fenne of humane corruption, like a monſtrous hideous Dragon, with whom he ſtrove, and as he ſtruck off one head or tentation, ſo two or three other continually aroſe in the room thereof. And thus much for the Hydra, whether it be true or fabulous.

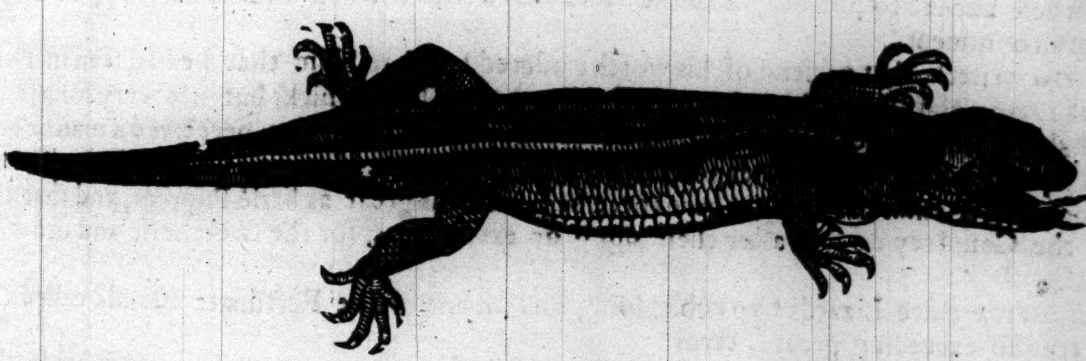
Of innocent SERPENTS.

I Doe read of two kindes of innocent Serpents, one called *Lybies*, becauſe they are only in *Africk*, and never do hurt unto men, and therefore *Nicander* was deceived, which maketh this kinde of Serpent to be the ſame with the *Amodyte*, whoſe ſting or teeth are very mortall and deadly. There be alſo other kindes of harmleſſe Serpents, as that called ***Molurus***, ***Muſſaca***, and ***Mylacris***, which is ſaid to go upon the tail, and it hath no notable property, except that one thing which giveth it the name, for ***Molurus*** is derived from *Molis Ouron*, that is hardly making water.

There be alſo domeſticall innocent Serpents, ***Myagrus***, *Orophia*, and *Spathiurus*, which whether they be one kinde or many, I will not ſtand upon, for they are all termed by the *Germans*, ***Huſſunck***, and ***Huſſchlang***, that is, a Houſe-ſnake. They live by hunting of Mice, and Weaſels, and upon their heads they have two little ears, like to the ears of a Mouſe, and becauſe they be as black as coals, the *Italians* call them *Serpe nero*, and *Carbon*, and *Garabonazzo*, and the *French-men*, ***Anguille de Hay***, that is, a Snake of hedges. There be ſome that nouriſh them in Glaſſes with branne, and when they are at liberty they live in Dung-hills alſo, wherein they breed ſometimes, they have been ſeen to ſuck a Cow, for then they twiſt their tails about the Cowes legs. ***Matthiolus*** writeth, that the fleſh of this Snake, when the head, tail, intrails, fat, and gall are cut off and caſt away, to be a ſpeciall remedy againſt the French-pox.

There are are alſo other kindes of Innocent Serpents, as that called *Parea*, and in *Italy Baron*, and *Pagerina*, which are brought out of the Eaſt, where theſe are bred. There be no other harmfull Serpents in that Countrey. They are of a yellow colour like Gold, and about four ſpans long: upon either ſide they have two lines or ſtrakes, which begin about a hand breadth from their neck, and end at their tail. They are without poyſon as may appear by the report of *Geſner*, for he did ſee a man hold the head alive in his hand. And thus much ſhall ſuffice to have ſpoken of Innocent Serpents.

Of the LIZARD.



ALthough there be many kinds of Lizards, yet in this place I will intreat firſt of the vulgar Lizard, called in the *Hebrew Letaab*, *Lanigermuſha*, *Lyſerda*, *Carbo*, *Pelipab*, and *Egloſe*; the *Chaldeans*, *Haltiba*, and *Humeta*; the *Arabians*, *Ataia*, *Albatbaie*, or *Albadaie*, *Hardun*, *Arab*, *Samabras*, *Saambras*; the *Grecians* in ancient time *Sauros*, and *Saura*, and vulgarly at this day *Koliſaura*; the *Italians* in ſome places, *Liguro*, *Leguro*, *Lacerta*, and *Lucertula*; about *Trent*, *Racani*, and *Ramarri*, and yet *Ramarro* is alſo uſed for a Toad; the *Spaniards*, *Lagarto*, *Lacerta*, *Lagartiſa*, and *Lagartixa*; the *French*, *Liſarde*; the *Germans*, ***Adax***, and when they diſtinguiſh the male from the female, they expreſſe the male, ***Ein Egochs***, and the female, ***Egles***; in *Heſſia*, *Lydetſtch*; in *Flanders* and *Illyria*, *Geſſierka*, and *Geſſtier*; the *Latines*, *Lacertus*, and *Lacerta*, becauſe it hath arms and ſhoulders like a man, and for this cauſe alſo the Salamander, the Stellion, the Crocodile, and Scorpions are alſo called ſometimes *Lacerti*, Lizards. And thus much ſhall ſuffice for the name.

The vulgar Lizard is deſcribed on this ſort; the skin is hard and full of ſcales, according to this ſaying of *Virgil*;

Abſint & picti ſqualentia terga Lacerti.

In Engliſh thus;

——————Thoſe put away
And painted Lizards with their ſcalie backs.

The colour of it is pale, and diſtinguiſhed with certain ruſty ſpots, as *Pliny* writeth, with long ſtrakes or lines to the tail; but generally they are of many colours, but the green with the white belly living in buſhes, hedges, and is the moſt beautifull, and moſt reſpected; and of this we ſhall peculiarly intreat hereafter. There have been ſome Lizards taken in the beginning of *September*, whoſe colour was like Braſſe, yet dark and dusky, and their belly partly white, and partly of an earthy colour, but upon either ſide they had certain little pricks or ſpots like printed Starres: their length was not paſt four fingers, their eyes looked backward and the holes and paſſages of their ears were round, the fingers of their feet were very ſmall, being five in number, both before and behind, with ſmall nails, and behind that was the longeſt which ſtandeth in the place of a mans fore-finger, and one of them ſtandeth different from the other, as the thumb doth upon a mans hand, but on the foreſeet all of them ſtand equall, not one behinde or before another.

Theſe little Lizards do differ from the Stellions in this; that they have bloud in their veins, and they are covered with a hard skin, winking with the upper eye-lid. All manner of Lizards have a cloven tongue, and the top thereof is ſomewhat hairy, or at the leaſt wiſe divided like the faſhion and figure of hair. Their teeth are alſo as ſmall as hair, being black, and very ſharp, and it ſeemeth alſo they are very weak, becauſe when they bite, they leave them in the wound. Their lungs are ſmall and dry, yet apt to ſwell and receive winde by inflamation: their belly is uniform and ſimple, their intrails long, their Milt round round and ſmall, and their ſtones cleave inwardly to their loyns: their tail is like the tail of a Serpent; and it is the opinion of *Ariſtotle*, that the ſame being cut off, groweth again. The reaſon whereof is given by *Cardan*, becauſe imperfect creatures are full of moyſtneſſe; and therefore the parts cut off do eaſily grow again. And *Pliny* reporteth that in his dayes he ſaw Lizards with double tails, whereunto *Americus Veſpuſius* agreeth, for he ſaith, that he ſaw in a certain Iſland not far from *Liſbon*, a Lizard with a double tail. They have four feet, two behinde and two before, and the former feet bend backward, and the hinder feet forward, like to the knees of a man.

Avicenna.

Now concerning the different kinds of Lizards, I muſt ſpeak as briefly as I can in this place, wherein I ſhall comprehend both the Countreys wherein they breed, and alſo their ſeverall kinds, with ſome other accidents neceſſary to be known. There is a kinde of Lizard called *Guarell*, or *Viell*, and *Alguarill*, with the dung whereof the Phyſitians do cure little pimples and ſpots in the face, and yet *Belunenſis* maketh a queſtion, whether this be to be referred to the Lizards or not, becauſe Lizards are not found but in the Countrey, out of Cities, and theſe are found every where.

Marcellus.

There is alſo another kinde of Lizard called *Lacertus Martenſis*, which being ſalted, with the head and purple Wooll, Oyl of Cedar, and the powder of burnt Paper, ſo put into a linnen cloth, and rubbed upon a bald place, do cauſe the hair that is fallen off to come again. There be other Lizards, called by the *Grecians Aruræ*, and by the *Latines*, *Lacertæ Piſſininæ*, which continually abide in green corn; theſe burned to powder, and the ſame mixed with the beſt wine and honey, do cure blinde eyes by an oyntment.

Albertus writeth, that a friend of his worthy of credit, did tell him that he had ſeen in *Provence*, a part of *France*, and alſo in *Spain*, Lizards as big as a mans leg is thick, but not very long, and theſe did inhabit hollow places of the earth, and that many times when they perceived a man or beaſt paſs by them, they would ſuddenly leap up to his face, and at one blow pull off his cheek. The like alſo is reported of *Piemont* in *France*, where there be Lizards as great as little Puppies, and that the people of the Countrey do ſeek after their dung or excrements, for the ſweetneſſe and other vertues thereof.

Strabo.
Solinus.

In *Lybia* there are Lizards two cubits long, and in one of the Fortunate Iſlands called *Capraria*, there are alſo exceeding great Lizards.

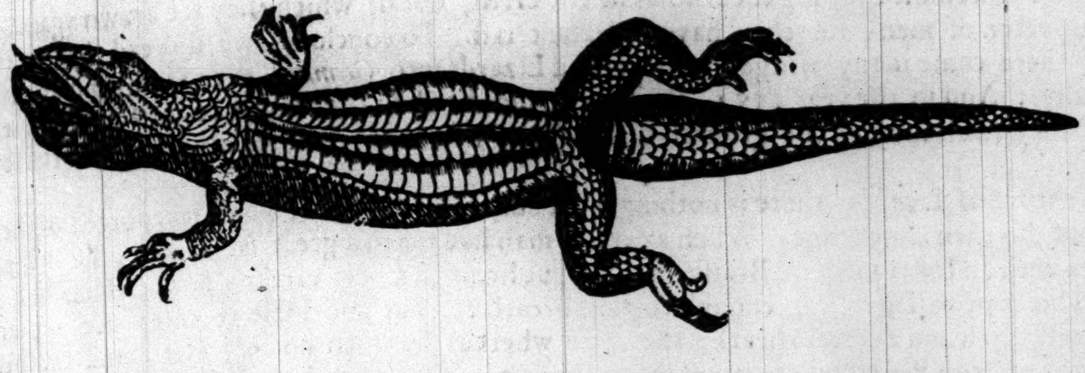
In the Iſland of *Dioſcorides*, neer to *Arabia* the leſſer, there are very great Lizards, the fleſh whereof the people eat, and the fat they ſeethe, and uſe in ſtead of Oyl: theſe are two cubits long, and I know not whether they be the ſame which the *Africans* call *Dulb*, and live in the deſerts of *Lybia*. They drink nothing at all, for water is preſent death unto them, ſo that a man would think that this Serpent were made all of fire, becauſe it is ſo preſently deſtroyed with water. Being killed there cometh no bloud out of it, neither hath it any poyſon but in the head and tayl. This the people hunt after to eat, for the taſte of the fleſh is like the taſte of Frogs fleſh, and when it is in the hole or den, it is very hardly drawn forth, except with ſpades and mattocks, whereby the paſſages are opened, and being abroad it is ſwift of foot.

Ælianus.
Polycletus.

The Lizards of *India*, eſpecially about the Mountain *Niſa*, are 24 foot in length, their colour variable, for their skin ſeemeth to be flouriſhed with certain pictures, ſoft and tender to be handled. I have heard that there hangeth a Lizard in the Kings houſe at *Paris*, whoſe body is as thick as a mans body, and his length or ſtature little leſſe; it is ſaid it was taken in a priſon or common Gaole, being found ſucking the legs of priſoners: and I do the rather beleeve this, becauſe I remember ſuch a thing recorded in the Chronicles of *France*, and alſo of another ſomewhat leſſer, preſerved in the ſame City, in a Church called Saint *Anthonies*. And to the intent that this may ſeem no ſtrange nor incredible thing, it is reported by *Volatteran*, that when the King of *Portugall* had conquered certain Iſlands in *Æthiopia*, in one of them they ſlew a Lizard, which had devoured or ſwallowed down a whole infant, ſo great and wide was the mouth thereof: it was eight cubits long, and for a rare miracle it was hanged up at the gate *Flumentana* in *Rome*, in the roof, and dedicated to the Virgin *Mary*. Beſides theſe, there are other kinde of Lizards, as that called *Lacerta vermicularis*, becauſe it liveth upon Worms and Spiders, in the narrow walls of old buildings. Alſo a ſilver-coloured Lizard, called *Liacome*, living in dry and ſun-ſhining places. Another kinde called *Senobras*, and *Adare*, and *Sennekie*. *Scen* is a red Lizard, as *Silvaticus* writeth, but I rather take it to be the Scinck, or Crocodile of the earth, which abound neer the red Sea.

There is alſo another kinde of Lizard called *Lacertus Solaris*, a Lizard of the Sun, to whom *Epiphanius* compareth certain Hereticks called *Sampſæi*, becauſe they perceive their eye-ſight to be dim and dull. They turn themſelves faſting in their Caves to the Eaſt, or Sun-riſing, whereby they recover their eye-ſight again.

The picture of the Lizard with the belly upward.



In *Sarmatia*, a Countrey of the *Rutenes*, there is a Province called *Samogithia*, wherein the Lizards are very thick, black, and great, which the fooliſh Countrey people do worſhip very familiarly, as the Gods of good fortune; for when any good befalleth them, they entertain them with plentiful banquets and liberal chear: but if any harm or miſchance happen unto them, then they withdraw that liberality, and intreat them more courſely, and ſo theſe dizzardly people think to make theſe Lizards by this means, more attentive and vigilant for their welfare and proſperity.

In the Province of *Cataia*, ſubject to the *Tartars*, there are very great Lizards, (or at leaſt wiſe Serpents like Lizards) bred, containing in length ten yards, with an anſwerable and correſpondent compaſſe and thickneſſe.

Some of theſe want their fore-legs, in place whereof they have claws like the claws of a Lyon, or talons of a Falcon. Their head is great, and their eyes are like two great loaves. Their mouth and the opening thereof ſo wide, as it may ſwallow down a whole man armed, with great, long, and ſharp teeth, ſo as never any man or other creature durſt without terror look upon that Serpent. Wherefore they have invented this art or way to take them.

The Serpent uſeth in the day time to lie in the Caves of the earth, or elſe in hollow places of Rocks and Mountains. In the night time it cometh forth to feed, ranging up and down ſeeking what it may devour, neither ſparing Lyon, Bear, nor Bull, or ſmaller beaſt, but eateth all he meeteth with until he be ſatisfied, and returneth again to his den. Now for as much as that Countrey is very ſoft and miry: the great and heavy Bulk of this Serpent maketh as it were a Ditch by his weight in the ſand or mire, ſo as where you ſee the trailing of his body, you would think there had been rowled ſome great veſſel full of Wine, becauſe of the round and deep impreſſion it leaveth in the earth.

Now the Hunters which watch to deſtroy this beaſt, do in the day time faſten ſharp ſtakes in the earth, in the path and paſſage of the Serpent eſpecially neer to his hole or lodging, and theſe ſtakes are pointed with ſharp Iron, and ſo covered in the earth or ſand, whereby it cometh to paſſe, that when in his wonted manner he cometh forth in the night ſeaſon to feed, he unawares faſtneth his breaſt, or elſe mortally woundeth his belly upon one of thoſe ſharp-pointed ſtakes. Which thing the Hunters lying in wait obſerving, do preſently upon the firſt noiſe with their ſwords kill him if he be alive, and ſo take out his gall which they ſell for a great price, for therewithal the biting of a mad Dog is cured, and a woman in travel taſting but a little of it, is quiclky diſcharged of her burthen. It is good alſo againſt the Hemroids and Piles. Furthermore, the fleſh of this Serpent is good to be eaten, and theſe things are reported by *Paulus Venetus*, and this ſtory following.

As *Americus Veſputius* ſayled in his journey from the Fortunate Iſlands, he came unto a Countrey where he found the people to feed upon ſod fleſh, like the fleſh of a ſerpent, & afterwards they found this beaſt to be in all things like a Serpent without wings, for they ſaw divers of them alive, taken and kept by the people to kill at their own pleaſure. The mouths whereof were faſt tyed with ropes, ſo as they could not open them to bite either man or beaſt, and their bodies were tyed by the legs. The aſpect of theſe beaſts was fearful to his company, and the ſtrangers which did behold it, for they took them to be Serpents, being in quantity as big as Roe-bucks, having long feet and ſtrong claws, a ſpeckled skin, and a face like a Serpent: from the noſe to the tip of his tail, all along the back there grew a briſtle, as it were the briſtle of a Bore, and yet the ſaid Nation feedeth upon them, and becauſe of their ſimilitude with Lizards, I have thought good to inſert their relation among the Lizards in this place, leaving it to the further judgement of the Reader, whether they be of this kinde or not.

In *Calecbut* there are Serpents alſo, or rather beaſts remaining in the fenny places of the Counrtey, whoſe bodies are all pild without hair like Serpents: alſo in their mouth, eyes, and tail they reſemble them, and in their feet Lizards, being as great as Boars, and although they want poyſon, yet are their teeth very hurtful where they faſten them. Like unto theſe are certain others bred in *Hiſpaniola*, in an Iſland called *Hyvana*, having prickles on their back, and a comb on their head, but without voyce having four feet, and a tail like Lizards, with very ſharp teeth. They are not much greater then Hares or Conies, yet they live indifferently in trees, and on the earth, being very patient, and induring famine many days. Their skin ſmooth and ſpeckled like a Serpents, and they have a crap on the belly from the chin to the breaſt, like the crap of a Bird.

Beſides theſe, there are alſo ſome called *Barbati*, about the bigneſſe of Conies, and of a white aſh colour, yet their skin and tail like a Snakes, and they reſemble trapped Horſes. They have four feet, and with the foremoſt they dig them holes in the earth, out of which they are drawn again like Conies to be eaten of men, for they have a pleaſant taſt. To conclude, we do read that in the year 1543 there came many winged Serpents and Lizards into *Germany*, neer *Syria*, and did bite many mortally: And in the year 1551. there were ſuch bred in the bodies of men and women, as we have ſhewed already in the general diſcourſe of Serpents, firſt of all recited in the beginning.

In all the nature of Lizards, there is nothing more admirable then that which is reported of them by *Ælianus* of his own knowledge. When a certain man had taken a great fat Lizard, he did put out her eyes with an Inſtrument of Braſſe, and ſo put her into a new earthen pot, which had in it two ſmall holes or paſſages, big enough to take breath at, but too little to creep out at, and with her moiſt earth and a certain hearb, the name whereof he doth not expreſſe: and furthermore, he took an Iron Ring, wherein was ſet an *Engagataes* Stone, with the Picture of a Lizard ingraven upon it. And beſides, upon the Ring he made nine ſeveral marks, whereof he put out every day one, until at the laſt he came at the ninth, and then he opened the pot again, and the Lizard did ſee as perfectly as ever he did before the eyes were put out: whereof *Albertus* enquiring the reaſon, could give none, but having read in *Iſidorus*, that when the Lizards grow old and their ſight dim or thick, then they enter into ſome narrow hole of a Wall, and ſo ſet their heads therein, directly looking towards the Eaſt or Sun-riſing, and ſo they recover their ſight again. Of this *Albertus* giveth good reaſon, becauſe he ſaith, the occaſion of their blindeneſſe cometh from frigidity congealing the humor in their eyes, which is afterward attenuated and diſſolved by the help and heat of the Sun. The voyce of the Lizard is like the voyce of other Serpents, and if it happen that any man by chance do cut the body of the Lizard aſunder, ſo as one part falleth from another, yet neither part dyeth, but goeth away the upon two legs that are left, and live apart for a little ſeaſon, and if it happen that they meet again, they are ſo firmly and naturally conjoyned by the ſecret operation of nature, as if they had never been ſevered, only the ſcar remaineth.

They live in caves of the earth, and in graves, and the green Lizards in the fields and Gardens, but the yellowiſh or earthy brown Lizard among hedges and thorns. They devour any thing that comes to their mouth, eſpecially Bees, Emmets, Palmer-worms, Graſſehoppers, Locuſts, and ſuch like things, and four months of the year they lie in the earth and eat nothing.

In the beginning of the year about *March*, they come out again of their holes, and give themſelves to generation, which they perform by joyning their bellies together, wreathing their tails together, and other parts of their bodies; afterwards the female bringeth forth Egges, which ſhe committeth to the earth, never ſitting upon them, but forgetteth in what place they were laid (for ſhe hath no memory.) The young ones are conceived of themſelves by the help of the Sun. Some there be which affirm that the old one devoureth the young ones aſſoon as they be hatched, except one which ſhe ſuffereth to live, and this one is the baſeſt and moſt dullard, having in it leaſt ſpirit of all the reſidue: yet notwithſtanding, afterwards it devoureth both his parents, which thing is proved falſe by *Albertus*, for ſeeing they want memory to finde out their own Egges, it is not likely that they have ſo much underſtanding as to diſcern their own young ones, nor yet ſo unnatual as to deſtroy the nobleſt of their brood, but rather they ſhould imitate the Crocodile, which killeth the baſeſt and ſpareth the beſt ſpirits.

It is affirmed, that they live but half a year or ſix months, but it is alſo falſe, for they hide themſelves the four coldeſt moneths; and therefore it is likely that they live more then ſix, for elſe what time ſhould they have for generation? Twice a year they change their skin, that is in the Spring and Autumn, like other Serpents that have a ſoft skin, and not hard like the Tortoiſes. Their place of conception and emiſſion of their Egges is like to Birds: and therefore it is a needleſſe queſtion to enquire whether they bring egges forth of their mouth or not, as ſome have fooliſhly affirmed, but without all warrant of truth or nature.

They live by couples together, and when one of them is taken, the other waxeth mad, and rageth upon him that took it, whether it be male or female: In the Old Teſtament Lizards, Weaſels, and Mice are accounted impure beaſts, and therefore forbidden to be eaten, not only becauſe they live in Graves and deſign inconſtancy of life, but alſo theeves and treacherous perſons. They are afraid of every noiſe, they are enemies to Bees, for they live upon them; and therefore in ancient time they mixed Meal and juyce of Mallows together, and laid the ſame before the Hives, to drive away Lizards and Crocodiles. They fight with all kinde of Serpents; alſo they devour Snails, and contend with Toads and Scorpions. The Night-owls and Spiders do deſtroy the little Lizards, for the Spider doth ſo long winde her thred about the jaws of the Lizard, that he is not able to open his mouth, and then ſhe faſteneth her ſtings in her brains. The Storks are alſo enemies to Lizards, according to this ſaying of the Poet;

——Sa-

———Serpente ciconia pullos
Nutrit & inventa per devia rura lacerta.
In Engliſh thus;
With Lizards young and Serpents breed,
The Stork ſeeketh her young ones to feed.

Notwithſtanding, that by the law of God, men were forbidden to eat the Lizard, yet the *Troglodites, Ethiopians*, did eat Serpents and Lizards, and the *Amazons* did eat Lizards and Tortoiſes, for indeed thoſe women did uſe a very thin and ſlender diet; and therefore *Cælius* doth probably conjecture, that they were called *Amazons*, becauſe *Mazis carebant*, that is, they wanted all manner of delicate fare. We have alſo ſhewed already, that the Inhabitants of *Dioſcorides* Iſle, do eat the fleſh of Lizards, and the fat after it is boyled, they uſe in ſtead of Oyl.

Concerning the venom or poyſon of Lizards, I have not much to ſay, becauſe there is not much thereof written: yet they are to be reproved which deny they have any poyſon at all, for it is manifeſt that the fleſh of Lizards eaten, (I mean of ſuch Lizards as are in *Italy*.) do cauſe an inflamation and apoſtumation, the heat of the head-ach, and blindeneſſe of the eyes. And the Egges of Lizards do kill ſpeedily, except there come a remedy from Faulkons dung and pure Wine. Alſo when the Lizard biteth, he leaveth his teeth in the place, which continually aketh, until the teeth be taken out: the cure of which wound is firſt to ſuck the place, then to put into it cold water, and afterward to make a plaiſter of Oyl and Aſhes, and apply the ſame thereunto. And thus much for the natural deſcription of the Lizard.

The medicines ariſing out of the Lizard, are the ſame which are in the Crocodile, and the fleſh thereof is very hot: wherefore it hath vertue to make fat, for if the fat of a Lizard be mixed with Wheat-meal, Halinitre, and Cumin, it maketh Hens very fat, and they that eat them much fatter: for *Cardan* ſaith, that their bellies will break with fatneſſe, and the ſame given unto Hawks, maketh them to change their feathers.

A Lizard diſſected, or the head thereof being very well beaten with Salt, draweth out Iron points *Marcellus.* of nails, and ſplents out of the fleſh or body of man, if it be well applyed thereunto, and it is alſo ſaid, that if it be mingled with Oyl, it cauſeth hair to grow again upon the head of a man, where an Ulcer made it fall off. Likewiſe a Lizard cut aſunder hot, and ſo applyed, cureth the ſtinging of Scorpions, and taketh away Wens.

In ancient time with a Field-lizard dryed and and cut aſunder, and ſo bruiſed in pieces, they did draw out teeth without pain; and with one of theſe ſod and ſtamped, and applyed with Meal or Frankincenſe to the fore-head, did cure the watering of the eyes.

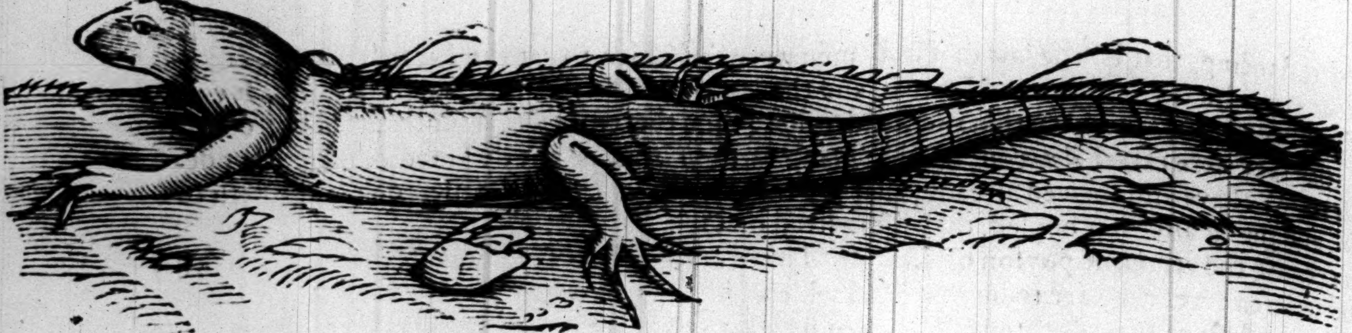
The ſame burned to powder, and mixed with Cretick Hony by an Ointment, cureth blindeneſſe. The Oyl of a Lizard put into the ear, helpeth deafneſſe, and driveth out Worms if there be any therein. If children be anointed with the bloud faſting, it keepeth them from ſwellings in the belly and legs: alſo the liver and bloud lapped up in Wooll, draweth out nails and thorns from the fleſh, and cureth all kinde of freckles, according to this verſe of *Serenus*;

Verrucam poterit ſanguis curare Lacerta.
That is to ſay;
The bloud of Lizards can,
Cure feeckles in a man.

The urine (if there be any at all) helpeth the Rupture in Infants. The bones taken out of the Lizards head in the full Moon, do ſcarifie the teeth, and the brain is profitable for ſuffuſions: The liver laid to the gums, or to hollow teeth, eaſeth all pain in them. The dung purgeth wounds, and alſo taketh away the whiteneſſe and itching of the eyes, and ſo ſharpneth the ſight, and the ſame with water, is uſed for a ſalve. *Arnoldus* doth much commend the dung of Lizards mixed with Meal, the black thereof being caſt away, and ſo dryed in a furnace, and ſoftned again with water of Nitre, and froth of the Sea, afterwards applyed to the eyes in a cloth, is very profitable againſt all the former evils. And thus much ſhall ſuffice to have ſpoken of the firſt and vulgar kinde of Lizard: for killing of whom *Apollo* was in ancient time called *Sauroctonos*.

Of the GREEN LIZARD.

THe greater Lizard which is called *Lacerta Viridis*, the green Lizard, by the *Grecians*, *Chloroſaura*; by the *Italians*, *Gez*; and by the *Germans*, *Gruner Heydex*, is the ſame which is called *Ophiomachus*, becauſe it fighteth with Serpents in the defence of man. They are of colour green, from whence they are named; and yet ſometimes in the Summer they are alſo found pale. They are twice ſo big as the former Lizard, and come not neer houſes, but keep in Medows and green fields. They only abound in *Italy*, and it is a beaſt very loving and friendly unto man, and an enemy to all other Serpents. For if at any nime they ſee a man, they inſtantly gather about him, and laying their heads at the one ſide, with great admiration behold his face: and if it chance a man do ſpit, they lick up the ſpittle joyfully, and it hath been ſeen that they have done the like to the urine of children, and they are alſo handled of children without danger, gently licking moiſture from their mouths. And if at any time three or four of them be taken, and ſo ſet together to fight, it is a wonder to ſee how eagerly they wound one another, and yet never ſet upon the man that put them together.



If one walk in the fields by hollow ways, buſhes, and green places, he ſhall hear a noiſe, and ſee a motion as if Serpents were about him, but when he looketh earneſtly upon them, they are Lizards wagging their heads, and beholding his perſon: and ſo if he go forward they follow him, if he ſtand ſtill they play about him. One day (as *Eraſmus* writeth) there was a Lizard ſeen to fight with a Serpent in the mouth of his own Cave, and whileſt certain men beheld the ſame, the Lizard received a wound upon her cheek by the Serpent, who of green, made it all red, and had almoſt torn it all off, and ſo hid herſelf again in her den. The poor Lizard came running unto the beholders, and ſhewed her bloudy ſide, as it were deſiring help and commiſeration, ſtanding ſtill when they ſtood ſtill, and following when they went forward, ſo that it acknowledged the ſoveraignty of man, appealing unto him as the chief Juſtice, againſt all his enemies and oppreſſors.

It is reported by the *Italians*, that many times while men fall aſleep in the fields, Serpents come creeping unto them, and finding their mouths open, do ſlide down into their ſtomachs: Wherefore, when the Lizard ſeeth a Serpent coming toward a man ſo ſleeping, ſhe waketh him, by gently ſcratching his hands and face, whereby he eſcapeth death and deadly poyſon.

The uſe of theſe green Lizards, is by their skin and gall to keep apples from rotting, and alſo to drive away Caterpillers, by hanging up the skin on the tops of trees, and by touching the apples with the ſaid gall: alſo when the head. feet or intrails are taken away, the fleſh of the green Lizard is given in meat to one that hath the Sciatica, and thus much for the natural uſes of the green Lizard.

Palladius.
Pliny.

The remedies ariſing out of this Lizard, are briefly theſe: Firſt it is uſed to be given to Hawks, and to be eaten in ſmall pieces, provided ſo as it be not touched with their talons, for it will hurt their feet, and draw their claws together; alſo they ſeethe it in water, then beat it in a mortar. Laſtly, when they have poured warm water upon it, they let the Hawk waſh her feet in it, and ſo it cauſeth her to caſt her old feathers and coat, and bringeth a new in the room thereof. This Lizard eaten with ſauces to take away the loathing thereof, is good for the Falling-evil: and being ſod in three pintes of Wine, until it be but one cup full, and thereof taken every day a ſpoonful, is good for them that have a diſeaſe in the lungs. It is alſo profitable for them that have pain in the loins And there are many ways to prepare it for the eyes, which I will not ſtand to relate in this place, becauſe they are ſuperſtitious, and therefore likely to do more harm then good to the Engliſh Reader.

Marcellus.

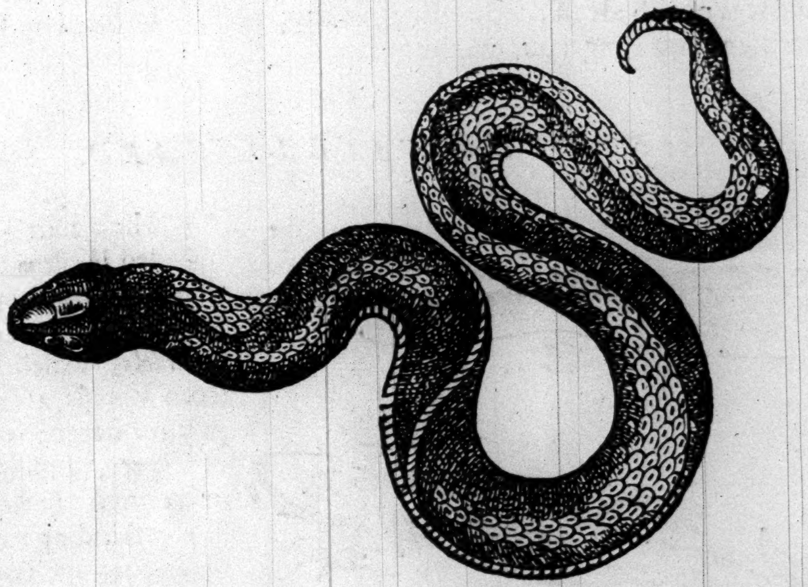
There is an Oyl made of Lizards, which is very precious, and therefore I will deſcribe it as I finde it in *Braſavolus*. Take ſeven green Lizards, and ſtrangle them in two pound of common Oyl, therein let them ſoke three days, and then take them out, and afterwards uſe this Oyl to anoint your face every day, but one little drop at once, and it ſhall wonderfully amend the ſame. The reaſon hereof ſeemeth to be taken from the operation of the dung or excrements, becauſe that hath vertue to make the face white, and to take away the ſpots.

If the upper part in the paſtern of a Horſe be broken, put thereinto this Oyl with a little Vinegar, then rub the hoof about therewith, ſo ſhall it increaſe and grow again, and all the pain thereof ſhall paſſe away. The making of the medicine is this: Take a new earthen pot, put thereinto three pintes of Oyl, wherein you muſt drown your Lizards, and ſo ſeethe them till they are burned away, then take out the bones, and put in ſoft Lime half a pound, liquid Pitch a pinte, of Swines greaſe two pound; then let them be all ſod together again & afterwards preſerved and uſed upon the hoof as need ſhall require: for it ſhall faſten and harden the Horſes hoof, and there is nothing better for this purpoſe then this Oyl. The aſhes of a green Lizard do reduce skars in the body to their own colour.

The bones of a green Lizard are good againſt the Falling-evil, if they be prepared in this manner following: Put your green Lizard alive into a veſſel full of Salt, and there ſhut it in ſafe, ſo in few days it will conſume all the fleſh and intrails from the bones, and ſo the bones may be taken and uſed in this caſe like the hoof an Elk, which are very precious for this ſickneſſe, and no leſſe precious are theſe bones. The bloud doth cure the beating, bruizings and thick skins in the feet of men and beaſts, being applyed in flocks of Wooll.

The eye is ſuperſtitiouſly given to be bound to ones arm on a quartane Ague, and the eyes preſſed out alive, and ſo included in golden buttons or bullets, and carryed about, do alſo help the pain of the eyes, and in default hereof the bloud taken out of the eyes in a piece of Purple wooll, hath the ſame operation. The heart of a Lizard is alſo very good againſt the exulcerations of the Kings-evil, if it be but carryed about in the boſome in ſome ſmall ſilver veſſel. The gall taketh away the hairs upon the eye-lids that are unſeemly, if it be dryed in the ſame to the thickneſſe of Honey, eſpecially in the Dog-days, and mixed with White-wine, then being anointed upon the place, it never ſuffereth the hairs to grow again. And thus much for the Hiſtory of the green Lizard.

Of the MILLET *or* CENCHRINE.



THis Serpent called by the *Grecians Cenchros*, *Cenchrines*, *Cenchridion*, and *Cenchrites*; is by the *Latines* called *Cenchria*, *Cenchrus*, and *Milliaris*: becauſe it cometh abroad at the time that Millet-ſeed floureth, and is ready to ripe, or elſe becauſe it hath certain little ſpots upon it like Millet-ſeed; and is alſo of the ſame colour. It is likewiſe barbarouſly called *Famuſus*, *Aracis*, and *Faliviſus*. The *Germans* of all others have a name for it, for they call it *Punter-ſchlang*, and *Berg-ſchlang*. Other Nations not knowing it cannot have any name for it; and therefore I cannot faign any thereof, except I ſhould lie groſly] in the beginning of the Hiſtory. This Serpent is only bred in *Lemnus* and *Samothracia*, and it is there called a Lyon, either becauſe it is of very great quantity and bigneſſe, or elſe becauſe the ſcales thereof are ſpotted and ſpeckled like the *Lybian* Lyons: or becauſe when it fighteth the tail is turned upward like a Lyons tail, and as a Lyon doth. But it is agreed at all hands, that it is called *Milliaris*, a Millet, becauſe in the ſpots of his skin and colour it reſembleth a Millet-ſeed, which cauſed the Poet to write on this manner;

Nicander.
Gillius.
Lucan.

Pluribus ille notis variatam tingitur alvum,
Quàm parvis tinctus maculis Thebanus Ophites.

In Engliſh thus;

With many notes and ſpots, his belly is bedyed
Like Thebane her, Ophites ſightly tryed.

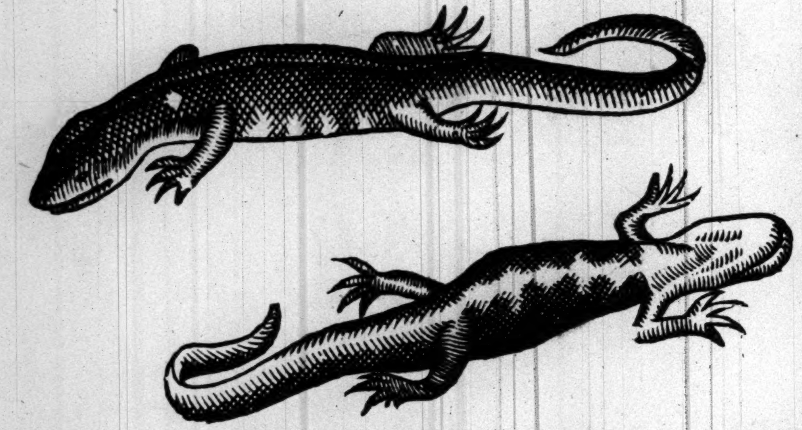
But not only his belly, for his back and whole skin is of the ſame faſhion and colour. The length of this Serpent is about two cubits, and the thick body is attenuated toward the end, being ſharp at the tail. The colour is dusky and dark like the Millet, and it is then moſt ireful and full of wrath or courage, when this herb or ſeed is at the higohſt. The pace of this Serpent is not winding or travailing, but ſtraight, and directed without bending to and fro: and therefore ſaith *Lucan*; *Et ſemper recto lapſurus limite Cenchris*: that is, And the Millet alway ſtanding in a ſtraight and right line, and for this cauſe when a man flyeth away from it, he muſt not run directly forward, but winde to and fro, crooking like an Indenture, for by reaſon thereof this Serpents large body cannot ſo eaſily and with the like ſpeed turn to follow and perſue, as it can directly forward.

It is a very dangerous Serpent to meet withal, and therefore not only the valianteſt man, but alſo the ſtrongeſt beaſt is, and ought juſtly to be afraid thereof, for his treacherous deceits and ſtrength of body; for when it hath gotten the prey or booty, he beclapſeth it with his tail, and giveth it fearful blows, in the mean time faſteneth his jaws or chaps to the man or beaſt, and ſucketh out all the bloud till it be fully ſatisfied; and like a Lyon he beateth alſo his own ſides, ſetting up the ſpires of his body when he aſſalteth any adverſary, or taketh any reſiſting booty. I take this to be the ſame called in *Sicilia*, *Serpa ſerena*, which is ſometimes as long as a man, and as great as the arm about the wriſt. In the heat of Summer they get themſelves to, the Mountain, and there ſeize upon cattel of all ſorts, as often as anger or wrath enforceth them.

The nature of it is very hot, and therefore venomous in the ſecond degree: wherefore when it hath bitten any, there followeth putrefaction and rottenneſſe, as fleſh where water lyeth betwixt the skin, like as in the Dropſie: for beſides, the common affections it hath with the Viper, and the biting thereof, alike in all things, more deadly and unreſiſtible evils followeth, as drouzy, ſleepineſſe, and Lethargy, and pain in the belly, eſpecially the Colick, pain in the liver and ſtomach, killing within two days, if remedy be not provided.

The cure is like the cure of the Vipers biting, Take the ſeed of Lettice, and Flax-ſeed, Savory beaten or ſtamped, and wilde Rue, wilde Betony, and Daffadil two drams in three cups of Wine, and drink the ſame, immediately after the drinking hereof, drink alſo two drams of the root of Centaury, or Hartwort, Noſewort, or Gentian, or Seſamine. And thus much for a deſcription of this venomous Serpent, one of the greateſt plagues to man and beaſt in all thoſe Countries or places, wherein it is ingendered, and it is not the leaſt part of Engliſh happineſſe to be freed by God and Nature from ſuch noyſome, virulent and dangerous neighbours.

Of the NEVTE or WATER-LIZARD.



THis is a little black Lizard, called *Waſſermoll*, & *Waſſeraddex*, that is a Lizard of the Water. In *French*, *Taſſot*; and in *Italian Maraſandola*, which word is derived from *Maraſſo*, a Viper, becauſe the poyſon hereof is like the poyſon of Vipers, and in the *Greek* it may be termed *Enudros Sauros.* They live in ſtanding waters or pools, as in ditches of Towns and Hedges. The colour as we have ſaid is black, and the length about two fingers, or ſcarſe ſo long. Under the belly it is white, or at leaſt hath ſome white ſmall ſpots on the ſides and belly: yet ſometimes there are of them that are of a duſty earthy colour, and towards the tail yellowiſh. The skin is ſtrong and hard, ſo as a knife can ſcarſe cut the ſame, and being cut, there iſſueth out a kinde of white mattery liquor, like as is in Salamanders.

Being taken, it ſhutteth the mouth ſo hard as it cannot be eaſily opened, neither doth it endevour to bite, although it be plucked and provoked. The tongue is very ſhort and broad, and the teeth ſo ſhort and ſmall, as they are ſcarcely viſible within the lips. Upon the fore-feet it hath four fingers or claws, but upon the hinder-feet it hath five. The tail ſtandeth out betwixt the hinder-legs in the middle, like the figure of a wheel-whirl, or rather ſo contracted, as if many of them were conjoyned together, and the void or empty places in the conjunctions were filled. The tail being cut off, liveth longer then the body, as may be ſeen in every days experience, that is, by motion giveth longer ſignes and token of life.

This Serpent is bred in fat waters and ſoils, and ſometimes in the ruines of old walls, eſpecially they delight in white muddy waters, hiding themſelves under ſtones in the ſame water if there be any, and if not, then under the banks ſide of the earth, for they ſeldome come to the land. They ſwim underneath the water, and are rarely ſeen at the top. Their egges are not paſt ſo big as peaſe, and they are found hanging together in cluſters. One of theſe being put alive into a glaſſe of water, did continually hold his head above the water like as Frogs do, ſo that thereby it may be conjectured it doth often need reſpiration, and keepeth not under water except in fear, and ſeeking after meat.

There is nothing in nature that ſo much offendeth it as Salt, for ſo ſoon as it is laid upon Salt, it endeavoureth with all might and main to run away, for it biteth and ſtingeth the little beaſts above meaſure, ſo that it dyeth ſooner by lying in Salt where it cannot avoid, then it would by ſuffering many ſtripes, for being beaten it liveth long, and dyeth very hardly. It doth not like to be without water, for if you try one of them, and keep it out of water but one day, it will be found to be much the worſe.

Being moved to anger, it ſtandeth upon the hinder-legs, and looketh directly in the face of him that hath ſtirred it, & ſo continueth til all the body be white, through a kind of white humor or poyſon, that it ſwelleth outward, to harm (if it were poſſible) the perſon that did provoke it. And by this is their venomous nature obſerved to be like the Salamander, although their continual abode in the water, maketh their poyſon the more weak.

Some ſay that if in *France* a Hog do eat one of theſe, he dyeth thereof, and yet doth more ſafely eat the Salamander. But in *England* it is otherwiſe, for I have ſeen a Hog without all harm carry in his mouth a Newt, and afterward eat it. There be ſome Apothecaries which do uſe this Newt in ſtead of Skinks or Crocodiles of the earth, but they are deceived in the vertues and operation,and do alſo deceive other, for there is not in it any ſuch wholeſome properties, and therefore not to be applyed without ſingular danger. And thus much may ſuffice to be ſaid for this little Serpent, or Water-creeping creature.

Of the PELIAS.

A*Etius* making mention of the *Elaps* and *Pelias*, two kindes of Serpents, doth joyntly ſpeak of them in this ſort', ſaying that the ſignes of theſe Serpents were ſo common and vulgarly known, that there was no deſcriptions of them among the ancient Writers. But the Pelias biting cauſeth putrefaction about the wound or bitten place, but yet not very dangerous, and it bringeth obfuſcation or dimneſſe to the eyes, by reaſon that as the poyſon is univerſally diſtributed over all the body, ſo it hath moſt power over the tendereſt part, namely the eyes. It is cured by a Ptiſane with Oyl in drink, and a decoction of ſuch Docks as grow in ditches, and other ſimple medicines, ſuch as are applyed to the curing of the Yellow-jaundiſe. The eyes muſt be waſhed with the urine of a childe or young man which never knew any woman carnally, and this may be applyed either ſimply and alone, or elſe by Brine and Pickle, ſo alſo muſt the head. After that the body is purged, anoint it with Balſamum and Honey, and take an Eye-ſalve to ſharpen again and recover the ſight, and for this cauſe it is very good to weep, for by evacuation of tears, the venom alſo will be expelled. But if the eyes grow to pain, then let their Eye-ſalve be made more temperate and gentle, to keep the head and brain from ſtupefaction. And thus much for the Pelias out of *Aetius*.

Of the PORPHYRE.

THere is among the *Indians* a Serpent about the bigneſſe of a ſpan or more, which in outward aſpect is like to the moſt beautiful and well coloured Purple, the head hereof is exceeding white, and it wanteth teeth. This Serpent is ſought for in the higheſt Mountains, for out of him they take the Sardius ſtone. And although he cannot bite becauſe he wanteth teeth, yet in his rage when he is perſecuted, he caſteth forth a certain poyſon by vomit, which cauſeth putrefaction where ever it lighteth. But if it be taken alive and be hanged up by the tail, it rendereth a double, one whiles it is alive, the other when it is dead, both of them black in colour,but the firſt reſembleth black Amber. And if a man take but ſo much of the firſt black venom as is the quantity of a Seſamine ſeed, it killeth him preſently, making his brains to fall out at his noſtrils,but the other worketh neither ſo ſpeedily, nor after the ſame manner; for it caſteth one into a Conſumption,and killeth within the compaſſe of a year. But I finde *Ælianus*, *Volateran*, and *Textor* to differ from this relation of *Cteſias*, for they ſay, that the firſt poyſon is like to the drops of Almond trees, which are congealed into a gum,and the other which cometh from it when he is dead, is like to thin mattery water. Unto this Porphyre I may add the Palmer Serpent, which *Strabo* writeth doth kill with an unrecoverable poyſon, and it is alſo of a Scarlet colour, to the loyns or hinder-parts.

Of the PRESTER.

ALthough there be many Writers which confound together the Preſter & the Dipſas,and make of them but one kinde, or Serpent of divers names,yet ſeeing on the contrary there he as many or more which do diſtinguiſh or divide them, and make them two in nature different, one from another, the Dipſas killing by thirſt, and the Preſter by heat, as their very names do ſignifie,therefore I will alſo trace the ſteps of this latter opinion, as of that which is more probable and conſonant to truth.

The *Grecians* call it *Preſter* of *Pretbein*, which ſignifieth to burn or inflame, and *Tremellius* and *Junius* think, that the Serpents called fiery Serpents, which did ſting the *Iſraelites* in the Wilderneſſe,were Preſters. We finde in *Suidas*, *Preſter* for the fire of Heaven, or for a cloud of fire carryed about with a vehement ſtrong winde, and ſometimes lightenings. And it ſeemeth that this is indeed a fiery kinde of Serpent, for he himſelf always goeth about with open mouth, panting and breathing as the Poet writeth;

Oraque diſtendens avidus fumantia Preſter,
Inficit, ut læſus tumida membra gerat.
Which may be Engliſhed thus;
The greedy Preſters wide-open foming mouth
Infects, and ſwelleth, making the members by heat uncouth.

When this Serpent hath ſtruck or wounded, there followeth an immeaſurable ſwelling, diſtraction,converſion of the bloud to matter, and corrupt inflamation taking away freedom or eaſineſſe of aſpiration, likewiſe dimming the ſight, or making the hair to fall off from the head; at laſt ſuffocation as it were by fire, which is thus deſcribed by *Mantuan* upon the perſon of one *Narſidius*, lying as followeth;

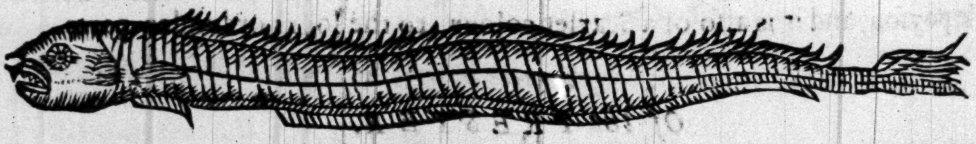
Ecce ſubit facies leto diverſa fluenti.
Narſidium Marſi cultorem torridus agri
Percuſſit preſter: illi rubor igneus ora
Succendit, tenditq; cutem pereunte figura,
Miſcens cuncta tumor toto jam corpore major.
Humanumq; egreſſa modum ſuper omnia membra
Efflatur Sanies, latè tollente veneno.
Ipſe late penitus congeſto corpore merſus.
Nec lorica tenet diſtenti corporis auctum.
Spumeus accenſo non ſic exundat aheno
Undarum cumulus: nec tanto carbaſa Coro
Curvavere ſinus: tumidos jam non capit artus
Informis globus & confuſo pondere truncus.
Intactum volucrum roſtris, epulaſq; daturum
Haud impune feris, non auſi tradere buſto,
Nondum ſtante modo creſcens fugere cadaver.

Which may be thus Engliſhed;

Lo ſuddenly a divers fate the joyful current ſtayed,
Narſidius, which Marſinus mirror did adore,
By burning ſting of ſcorching Preſter dead was layed,
For fiery colour his face enflam'd, not as before.
The firſt appearing viſage faild, all was out-ſtretcht,
Swelling cover'd all, and bodies groſneſſe doubled.
Surpaſſing humane bounds and members all ore reacht,
Aſpiring venom ſpreads matter blown in carkaſſe troubled.
The man lyeth drownd within ſwoln bodies banks,
No girdle can his monſtrous growth contain.
Not ſo are waters ſwoln with rage of ſandy flanks,
Nor ſails bend down to bluſtering Corus wain.
Now can it not the ſwelling ſinews keep in hold,
Deformed globe it is, and trunk ore-come with waight,
Untoucht of flying Fowls, no beaks of young or old
Do him dare eat, or beaſts full wilde upon the body bait,
But that they die. No man to bury in earth or fire
Durſt once come nigh, nor ſtand to look upon that hapleſſe caſe,
For never ceaſed the heat of corps, though dead to ſwell,
Therefore afraid they ran away with ſpeedy pace.

The cure of the poyſon of this Serpent, is by the Phyſitians found out to be wilde Purſlain, alſo the flowers and ſtalk of the buſh, the Beavers ſtone called *Caſtoreum*, drunk with Opoponax and Rew in Wine, and the little Sprat-fiſh in diet. And thus much of this fire-burning venomous Serpent.

Of the RED SERPENT.



THis kinde of Serpent being a Serpent of the Sea, was firſt of all found out by *Pelicerius* Biſhop of *Montpelier*, as *Rondoletus* writeth, and although ſome have taken the ſame for the *Myrus* or *Berus*, of which we have ſpoken already, yet is it manifeſt that they are deceived, for it hath gills covered with a bony covering, and alſo fins to ſwim withal, much greater then thoſe of the *Myrus*, which we have ſhewed already to be the male Lamprey. This Serpent therefore for the outward proportion thereof, is like to the Serpents of the land, but of a red or purpliſh colour, being full of crooked or oblique lines, deſcending from the back to the belly, and dividing or breaking that long line of the back, which beginneth at the head, and ſo ſtretcheth forth to the tail.

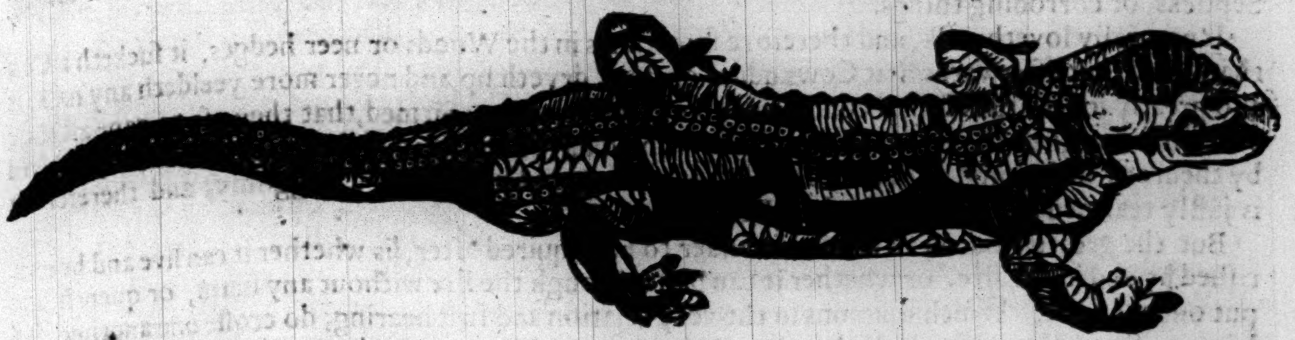
The opening of his mouth is not very great, his teeth are very ſharp and like a ſaw, his gils like ſcaly fiſhes, and upon the ridge of his back, all along to the tail, and underneath upon the rine or brim of his belly are certain hairs growing, or at the leaſt thin ſmall things like hairs, the tail being ſhut up in one undivided fine. Of this kind no doubt are thoſe which *Bellonius* ſaith he ſaw by the lake *Abydus*, which live in the waters, and come not to the land but for ſleep, for he affirmeth that they are like land Serpents, but in their colour they are red ſpotted, with ſome ſmall and duſky ſpots. *Gillius* alſo ſaith, that among the multitude of Sea Serpents, ſome are like Congers, and I cannot tell whether that of *Virgil* be of this kinde or not, ſpoken of by *Laocoon* the Prieſt of *Neptune*.

Solennes taurum ingentem mactabat ad aras.
Ecce autem gemini à Tenedo tranquilla per alta
(Horreſco referens) immenſis orbibus angues
Incumbunt pelago: pariterq; ad littora tendunt.
Pectora quorum inter fluctus arrecta, jubæque
Sanguineæ exuperant undas: pars cætera pontum
Pone legit, ſinuatque immenſa volumine terga.
Fit ſonitus ſpumante ſalo, &c.

Which may be Engliſhed thus;

Whileſt he a Bull at Altars ſolemn ſacrifice,
Behold (I fear to tell) two monſtrous Snakes appeared,
Out of Tenedus ſhore both calm and deep did riſe
One part in Sea, the other on Land was reared:
Their breaſts and red blood manes on waters mounted,
But back and tail on Land from foaming Sea thus ſounded.

Of the SALAMANDER.



I Will not contrary their opinion which reckon the Salamander among the kindes of Lizards, but leave the aſſertion as ſomewhat tolerable: yet they are not to be followed, or to be believed, which would make it a kinde of Worm, for there is not in that opinion either reaſon or reſemblance. What this Beaſt is called among the *Hebrews* I cannot learn, and therefore I judge that the *Jews* (like many other Nations) did not acknowledge that there was any ſuch kinde of creature, for ignorance bringeth infidelity in ſtrange things and propoſitions.

The *Grecians* call it *Salamandra*, which word or term is retained almoſt in all languages, eſpecially in the *Latine*, and therefore *Iſidore* had more boldneſſe and wit, then reaſon, to derive the *Latine Salamandra, quaſi Valincendram*, reſiſting burning, for being a *Greek* word, it needeth not a *Latine* notation. The *Arabians* call it *Saambras*, and *Samabras*, which may well be thought to be derived or rather corrupted, from the former word *Salamandra*, or elſe from the *Hebrew* word *Semamit*, which ſignifieth a Stellion. Among the *Italians* and *Rhetians* it retaineth the *Latine* word; and ſometimes in *Rhetia* it is called *Roſada*. In the Dukedom of *Savoy*, *Pluvina*. In *France*, *Sourd*, *Blande*, *Albrenne*, and *Arraſſade*, according to the divers Provinces in that Kingdom. In *Spain* it is called *Salamantegua*. In *Germany* it is called by divers names, as *Maall*, and *Punter maall*, *Olm*, *Moll*, and *Molch*, becauſe of a kinde of liquor in it like milk, as the *Greek* word *Molge*, from *amelgein* to ſuck milk. Some in the Countrey of *Helvetia* do call it *Quatterteſb*. And in *Albertus* it is likewiſe called *Rimatrix*. And thus much may ſuffice for the name thereof.

The deſcription of their ſeveral parts followeth, which as *Avicen* and other Authors write, is very like a ſmall and vulgar Lizard, except in their quantity, which is greater; their legs taller, and their tail longer. They are alſo thicker and fuller then a Lizard, having a pale white belly, and one part of their skin exceeding black, the other yellow like Verdigreaſe, both of them very ſplendent and gliſtering, with a black line going all along their back, having upon it many little ſpots like eyes: And from hence it cometh to be called a Stellion, or *Animal ſtellatum*, a creature full of ſtars, and the skin is rough and bald, eſpecially upon the back where thoſe ſpots are, out of which as writeth the *Scholiaſt*, iſſueth a certain liquor or humor, which quencheth the heat of the fire when it is in the ſame.

Matthiolus. This Salamander is alſo four-footed like a Lizard, and all the body over it is ſet with ſpots of black and yellow, yet is the ſight of it abominable and fearful to man. The head of it is great, and ſometimes they have yellowiſh bellies and tails, and ſometimes earthy. It is ſome queſtion among the learned, whether there be any diſcretion of ſex, as whether there be in this kinde a male and a female. *Pliny* affirmeth that they never engender, and that there is not among them either male or female, no more then there are among Eeles. But this thing is juſtly croſſed, both by *Bellonius* and *Agricola*, for they affirm upon their own knowledge, that the Salamander engendereth her young ones in her belly like unto the Viper, but firſt conceiveth egs, and ſhe bringeth forth forty and fifty at a time, which are fully perfected in her womb, and are able to run or go ſo ſoon as ever they be littered: and therefore there muſt be among them both male and female.

The Countries wherein are found Salamanders, are the Region about *Trent*, and in the *Alpes*, and ſometime alſo in *Germany*. They moſt commonly frequent the coldeſt and moiſteſt places, as in the ſhadow of Woods, in hedges neer Fountains and Rivers, and ſometimes they are found among Corn and Thorns, and among Rocks. They are ſeldom ſeen except it be either in the Spring-time, or againſt rain, and for this cauſe it is called *Animal vernale*, and *Pluvioſum*, a Spring or rainy creature. And yet there were many of them found together in a hole neer unto the City *Sneberg* in *Germany*, in the month of *February*, for they love to live in flocks and troups together, and at another time in *November*, a living Salamander was found in a Fountain. How beit, if at any time it be ſeen forraging out of his den or lodging place, it is held for an aſſured preſage of rain. But if the Spring-time fortune to be cold or froſty, then they keep home, and go not viſibly abroad.

Some do affirm that it is as cold as Ice, and that it therefore quencheth heat or fire like a piece of Ice, which if it be true, then is the old Philoſophical Maxime utterly falſe, namely, that all living creatures are hot and moiſt, being compared to creatures without life and ſenſe, for there is not any dead or ſenſeleſſe body that ſo quencheth fire as Ice doth. But the truth is, that the Salamander is cold, and colder then any Serpent, yet not without his natural heat, which being compared to Armans, may truly be ſaid to be hot, and therefore the venom of the Salamander is reckoned among Septicks, or corroding things.

Willichius. It naturally loveth milk, and therefore ſometimes in the Woods or neer hedges, it ſucketh a Cow that is laid, but afterwards that Cows udder or ſtock dryeth up, and never more yeeldeth any milk. It alſo greatly loveth the Honey-combe, and ſome Authors have affirmed, that they uſe to gape after air or freſh breath, like the Chamæleon, yet they which have kept Salamanders in glaſſes, never perceived by them any ſuch thing. They are ſlow of pace, and void ground very ſluggiſhly, and therefore it is juſtly tearmed a heavy and ſlothful Beaſt.

But the greateſt matter in the Salamander to be enquired after, is whether it can live and be nouriſhed by and in the fire, or whether it can paſſe through the fire without any harm, or quench and put out the ſame. Which opinions in the very relation and firſt hearing, do croſſe one another, for how can that either be nouriſhed or live in the fire, which quencheth the ſame being put into it? *Ariſtotle* that never ſaw a Salamander himſelf, but wrote thereof by hear-ſay, hath given ſome colour to this opinion, becauſe he writeth, *Nonnulla corpora eſſe animalium quæ igne non abſumantur Salamandra documento eſt : quæ (ut aiunt) ignem inambulans eum extinguit.* That is to ſay, the Salamander is an evidence, that the bodies of ſome creatures are not waſted or conſumed in the fire, for (as ſome ſay) it walketh in the fire and extinguiſheth the ſame.

Now whether this beſeemed ſo great a Philoſopher, to write upon hear-ſay, who took upon him to gather all natural learning into his own Graunge or ſtore-houſe, and out of the ſame to furniſh both the preſent and all future ages, I leave it to the conſideration of every indifferent Reader that ſhall peruſe this ſtory. I for mine own part, rather judge it to be lightneſſe in him, to inſert a matter of this conſequence in the diſcourſe of this Beaſt, without either Authors, or experience gathered by himſelf. *Orus.* This one thing I marvail at, why the *Egyptians*, when they will expreſſe or ſignifie a Man burnt, do in their Hieroglyphicks paint a Salamander, except either fire can burn a Salamander, or elſe contrary to all their cuſtom, they demonſtrate one contrary by another.

Nicander plainly affirmeth, that the Salamander doth without all harm paſſe through the fire, and the Scholiaſt addeth, that there are certain paſſages in the skin, out of which iſſueth a kinde of liquor that quencheth the fire: And he telleth a ſtory of one *Andreas*, who did dip a piece of cloth in the bloud of a Salamander, and tryed afterward whether it would burn or not, but did not finde that it would burn, wherefore he put it upon his hand, and thruſt that into the fire, and then alſo he felt no manner of pain. And therefore the ſaid *Nicander* calleth this creature *Ciporrhinon*, becauſe of a certain fat humor which iſſueth out of it, quenching the fire, but I rather think that this fat humor maketh the skin to gliſter, for if it were properly fat, it would rather kindle and increaſe the fire then quench or extinguiſh the ſame.

Suidas followeth the common received opinion, that the Salamander quencheth the fire, (although it be not bred of the fire as Krickets are) like Ice; and when the fire is ſo quenched, it is in vain to blow or kindle the ſame again with any bellows, as they ſay have been tryed in the Forges of Smiths. And this alſo cauſed *Serenus* to write, *Seu Salamandra potens, nulliſq; obnoxia flammis*: the potent Salamander is never hurt by flames. *Seneca* conſenteth hereunto, and *Zoroaſtres*: and ſo great hath been the dotage about this opinion, that ſome have written that it aſcendeth up to the fire neer the Moon, far above the reach of the Eagles or ſwifteſt Fowls. Thus ſay they that write, and maintain the Salamanders abiding in the fire without harm. Now on the contrary, let us alſo hear their opinions, which deny this natural operation in the Salamander.

Pliny affirmeth, that in his own experience he found that a Salamander was conſumed in the fire, and not the fire by it, for he ſaith he burned one to powder, and uſed the ſame powder in medicines.

Sextus alſo denyeth that it quencheth the fire, and unto this opinion agreeth *Dioſcorides*. *Aetius* writeth, that when it is firſt put into the fire, it divideth the flame, and paſſeth through ſpeedily without harm, but if it tarry long therein it is burned and conſumed, becauſe the liquor or humidity thereof is waſted. And this is alſo granted by *Galen*, *Theophraſtus*, and *Niphus*. And *Mattheolus* affirmeth that he tryed the ſame, and found that if burning coals were laid upon it, then it burned like unto any other raw fleſh, but being caſt into the fire, it burneth not ſpeedily.

Albertus writeth, that there were ſome which brought to him a certain thing which they called Wooll, and ſaid that it would not burn, but he found it not *Lana*, Wooll, but *Lanygo*, that is, a vapoury adhærency of a thing which flyeth from the ſtrokes of hammers upon hot burning Iron, and being collected upon cloth, or cleaving to any part of the Forge, it there becometh in ſhew like yellowiſh pale Wooll.

The ſaid Author affirmeth, that he took a Spider, and laid the ſame upon a hot burning Iron, where it continued unburned and unharmed without motion a great while, by reaſon of his thick skin and coldneſſe, and unto another he ſuffered a little candle to be put, which inſtantly put it out. And for the ſame cauſes, that is to ſay, both the thickneſſe of the skin, and cold conſtitution, cometh it to paſſe, that a Salamander can live ſo long in the fire without burning or conſuming to aſhes: for indeed the skin thereof is ſo hard, that it is cut or pierced with a knife with great difficulty; and ſo when the force of the fire hath broken the skin, then alſo iſſueth forth a cold humor, which for a ſeaſon keepeth the heat out. For this Beaſt is ſaid to be very full of humor, and the certainty thereof may moſt manifeſtly appear by his full and groſſe body, and alſo by this, that it is ſeldom ſeen to iſſue or come forth of his den, except it be againſt rainy weather: and yet as the egges of other Serpents being caſt into a hot burning furnace, do for a ſeaſon reſt in the ſame unburned, and yet are afterward conſumed, ſo is it with the Salamander.

Cordus.

There be ſome that have found a web out of the hair growing upon Salamanders, which can by no means be ſet on fire, but this is very falſe, becauſe the Salamander hath no hair upon it at all. And this kinde of web rather cometh of a kinde of flax that *Pliny* writeth of, or rather of the *Amientus*-ſtone, called the *Asbeſt*, which is found in *Cyprus*, whereof they uſed to make coverings for the Theaters. This being caſt into a fire, ſeems to be forthwith all in a flame, but being taken out again, it ſhineth the more glorioufly.

Dioſcorid.

Some alſo do affirm, that ſuch a piece of cloth or web, may be wrought out of the Salamanders skin, but *Braſavolus* denyeth both the vertue of the ſtone, and of the Salamanders hide or ſhell, for he ſaith he tryed the ſtone, and it would not be wrought into wooll or ſpun into thread, and when he caſt the Salamanders ſhell or hide into the fire, it burned, and the mattery cold liquor thereof did almoſt flie into his face.

But ſome then will demand, where had Pope *Alexander* that coat, which could not be purged but by fire, which made it alway as white as Snow, or that map or net at *Rome*, wherein (it is ſaid) the Napkin of our Saviour Chriſt is preſerved, which men ſay is not waſhed but in the fire, which thing was ſent to a Biſhop of *Rome* for a preſent from the King of *Tartars*. Unto whom I anſwer out of *Paulus Venetus* as followeth. There is a Province in *Tartaria* called *Chinchnitalas*, wherein is a Mountain abounding with Mines of Steel and Copper; now in this Mountain there is a kinde of earth digged up, which yeeldeth a thred like the thred of Wooll. After the digging of it up they dry it in the Sun, and then beat it in a brazen mortar, afterward they ſpin it and weave it, in the ſame manner that they ſpin and weave other woollen cloth. After it is made, they have no means to purge it from ſpots or from filthineſſe, but to caſt it into the fire for the ſpace of an hour, and then it is taken forth again as white as any ſnow.

Cardan.

There is alſo an Allum called *Alumen Sciolæ*, and it is the ſame which among the Ancients is called *Aſter ſamius*, out of which alſo is made cloth that cannot burn, by reaſon of a certain Oyl that it containeth or yeeldeth to reſiſt the fire. So out of the ſtone *Pyritis* found in *Kiſheba*, there cometh out a green liquor preſſed with dead coals, and after that, no fire can burn that cloth. There are alſo certain Mantles in *Bohemia*, (as witneſſeth *Agricola*) which could never be burned. And out of *Magneſia* a ſcaly ſtone in *Boldecrana*, they make tables, which cannot be clenſed but by fire. It is alſo recorded, that the fore-named *Aſter ſamius*, and pitch quenched in the juyce of Mallows or Mercurial, being anointed upon a mans hand, doth keep them from burning, or ſenſe of extraordinary heat. So *Albertus* writeth of a ſtone which he calleth *Iſcullos*, or *Iſcuſtos*, which I take to be a kinde of the *Asbeſte* or *Amiantus*. And this ſtone is found (as the ſame Author writeth) in the fartheſt parts of *Spain*, neer the *Straights* and *Hercules-pillars*.

Pliny.

And this thing ſeemeth the leſſe ſtrange, becauſe they which are anointed with Bird-lime, or elſe with Vinegar and the white of an egge, do not ſo quickly feel the ſtrength of fire and heat, when they thruſt their hands into the midſt of it. It is alſo found, that the hearts of them that die of the heart-burning diſeaſe, or elſe are killed by poyſon, cannot be burned with fire. And therefore when *Germanicus Cæſar* was dead, it being ſuſpected that he was poyſoned by *Piſo*, they caſt his heart into the fire and it would not burn, which thing was alleadged againſt him by *Vitellius* the Oratour. And one *Aeſculapius* in an Epiſtle which he wrote to *Octavian Auguſtus* ſaith, that there is a poyſon ſo extream cold, that it keepeth the heart of a man poyſoned therewith from burning, and if it lie long in the fire, it waxeth as hard as a ſtone, which ſo concreted is called *Profilis*, from the force of the fire, and from the matter whereof it conſiſteth it is called an humane ſtone. He alſo ſaith, that this is red in colour, mixed with ſome white, and is accounted precious, becauſe both it maketh a man that weareth it to be a Conqueror, and alſo preſerveth him from all manner of poyſon.

When the Salamander is provoked, it caſteth forth a white mattery liquor or humor, and it is an audacious and bold creature, ſtanding to his adverſary, and not flying the ſight of a man; and ſo much the leſſe, if it perceive that a man proſecute and follow it, to harm and kill it. The biting of it is very exitial and deadly, and therefore the *French* men uſe this ſpeech upon the biting of a Salamander;

Si mordu t'a une areſſade,
Prens ton linceul & ta ſlaſſade.

That is, if a Salamander bite you, then betake you to the coffin and winding ſheet. The *Rhetians* do ordinarily affirm, that when a man is bitten by a Salamander, he hath need of as many Phyſitians as the Salamander hath ſpots. And *Arnoldus* ſaith, that it hath in it as many venoms and means of hurting, as it hath colours diſtinguiſhed one from another. For when it once biteth and faſteneth teeth, it never letteth go, and being pulled off, it leaveth the teeth behinde, and then there never can be any remedy, and therefore it muſt be ſuffered to hang upon the wound until it fall off, either willingly or wearied, or elſe compelled by the medicines that the wounded patient receiveth. For by this means only is the patient kept alive: yet this is alway to be remembred, that the Salamander doth not alway bite, although provoked, for *Geſner* affirmeth, that he having two of them, could never by beating make them open their mouths, nor that in all his life did he ever hear of any man bitten by them. And of this thing he not only gathereth the difference of time, wherein their rage ſheweth it ſelf by biting, and when not, but alſo the difference of place and region, for that they bite in ſome Countries, and not in other. When they have bitten, there followeth a vehement pain and ſcab upon the place, for the cure whereof there muſt be taken a decoction of Frogs, and the broth muſt be drunk, and the fleſh applyed to the ſore; or elſe other common remedies againſt the poyſon preſcribed in the Treatiſe following.

The poyſon hereof is great, and not inferior to the poyſon of any other Serpent, for ſometimes by creeping upon Apple-trees, it infecteth and poyſoneth all the fruit, ſo that thoſe which eat the ſame, die and languiſh they know not whereof: and if the heel of a man do but touch any ſmall part or portion of the ſpittle of a Salamander, it maketh all the hair of the body to fall off. The poyſon it ſelf is not cold, as ſome have thought, but hot, like to the poyſon of Cantharides, and therefore to be cured by the ſame means, as by vomits, Glyſters, Ephemeron, and ſuch like. Only Swine do eat Salamanders without harm or damage, for there is in them a kinde of reſiſtance in nature, and yet if Man or Dog do chance to eat of that Swine that hath eaten a Salamander, it hath been obſerved that they periſhed by the ſame. And this poyſon ſpreadeth it ſelf the further when it is dead, becauſe it is ſtrengthened by putrefaction, and Wine and Water wherein one of theſe lyeth dead, is empoyſoned and made mortal thereby to others. But in our days Salamanders are not ſo venomous, if there be any credit in *Braſavolus*, howbeit I have heard and read, that if at this day a Salamander get into a heap of corn, ſhe ſo infecteth it, that whatſoever eateth of that corn, dyeth as it were of poyſon, and the Kine of *Helvetia*, which are ſucked by Salamanders, do ever after remain barren, and without milk, and ſometime alſo they die of that evil. And as *Arnoldus* writeth, it caſteth forth a certain mattery white humor like milk out of the mouth, whereupon if a man or any other living creature do but tread, he is poyſoned thereby, and at the leaſt, all the hair of their body falleth off, and in like ſort they infect herbs and plants of the earth by their poyſon.

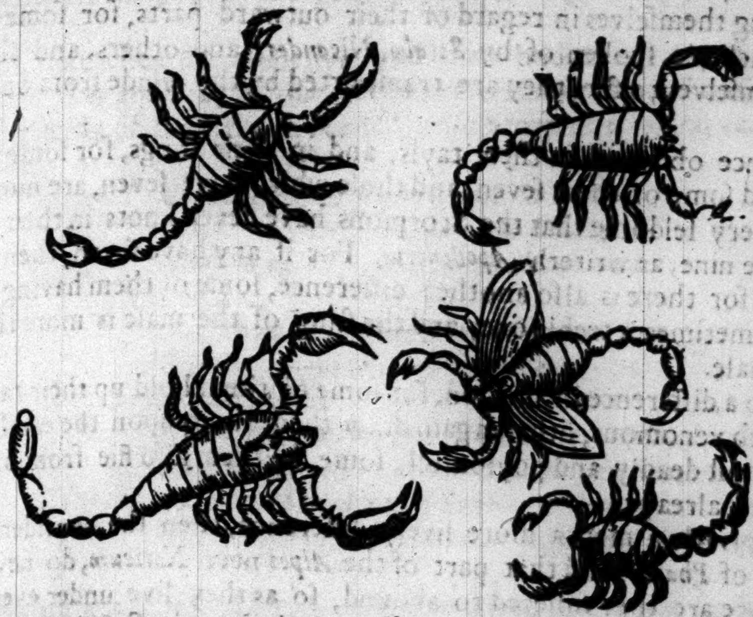
Ælianus.

Sometimes it happeneth that beaſts or men have ſwallowed Salamanders, and then the tongue is inflamed, and all the body falleth into grievous torment, by cold corruption and putrefaction, part after part, and alſo pains in the fundament and in the ſtomach, likewiſe Dropſies, and Impoſtumation in the belly, cramp of the guts, and retention of the urine. For the cure whereof they give ſweet water, Calamints, Saint Johns Wort, ſod with the ſhells of Pine-apples, leafs of Cypreſſe, *Galbanus*, and Honey or Rozen, Ammoniack, and Stirax, New Cow-milk, the meal made of Flax-ſeed with ſweet water, ſweet Wine and Oyl to cauſe vomits: Scammony, and a decoction of Calamints and Figs, fat Bacon or Hogs-fleſh, and alſo the Egges of a Tortoiſe, with the fleſh thereof; beſides infinite other remedies, ordained by the goodneſſe of Almighty God, as Phyſitians know by their own ſtudies and daily experiments. And therefore I hold it ſufficient for me to have lightly touched them, referring thoſe that are deſirous to know more, unto the learned collection of *Carromus*.

Out of the Salamander it ſelf ariſe alſo ſome medicines, for it a hath a ſeptick power to eate and corrode to take away hairs, and the powder thereof cureth corns and hardneſſe in the feet. The hear tyed to the wriſt in a black skin, taketh away a quartain Ague; and alſo *Kiranides* writeth, that being bound unto a womans thigh, it ſtayeth her monethly flowers, and keepeth her barren: But this is worthily reproved for untruth, and therefore I will not commend it to the Reader. And thus much for the Salamander.

Of the SCORPION.

SCorpios in *Greek* is attributed both to the Scorpion of the Land and of the Sea, although ſometimes for difference ſake, the Scorpion of the earth be called *Scorpios cherſaios*. The derivation is manifold according to ſome Writers, either of *Scorpizein ton ion*, that is, diſperſing his poyſon, or of *Sckanoos erpein*, becauſe the motion of it is oblique, inconſtant and uncertain, like as the flame of fire beaten with a ſmall winde. The *Grecians* alſo uſe for a Scorpion *Bleſa*, becauſe it caſteth poyſon, and *Octopos* from the number of his eight feet. And in *Æthiopia* there is a kinde of Scorpion which the *Greeks* call *Sybritæ*. The *Latines* doe uſe indifferently *Scorpius*, *Surpio nepa*, and *Cancer* alſo *Vimula* and *Geptaria*, as we finde in *Ponzettus*. The *Arabians* have many words, as *Harab*, *Acrob*, *Acbrach*, and *Satoracon*, *Hacbarab*, *Algerarat*, *Algeterat*, and *Algenat* and *Alkatareti*, for little Scorpions which draw their tails after them. Howbeit, among theſe names alſo *Algarat* ſignifieth that little kinde of Scorpions, and *Algarat* the Scorpion with bunches on his back. The *Hebrewes* according to the opinion of ſome, call a Scorpion *Accbabim*; the *Italians*, *Scurtigicio*, and *Scorpione terreſtre*; the *French*, *Vn Scorpion*; the *Spaniards*, *Alacram* and *Alacrani*, which name they have alſo given to an Iſland in the *Weſt-Indies* ſubject to their dominion. In *Caſtilia* it is called *Eſcorpion*, and in *Germany*, *Ein Scorpion*.



The Countries which breed Scorpions, are theſe that follow. In *Egypt*, neer the City *Coptus*, are very many great & peſtilent ſtinging Scorpions, who kill as ſoon as they ſmite. Alſo *Æthiopia* and *Numidia* abound with Scorpions, eſpecially the later, wherein (as writeth *Leo Afric*) are every yeer found very many that die of their wounds. *Tenas* one of the *Cyclades* Iſlands, is called *Ophieſſa*, becauſe it yeelds many Serpents and Scorpions. Alſo in that part of *Mauritania* which is neer the Weſt, are Scorpions with wings and without wings: likewiſe in *Iberia*, *Caria*, and *Lybia*. And it is alſo ſaid, that once there were many Scorpions brought into *India*, into that part of the Countrey where the *Rhicophagi* dwell. By the way betwixt *Suſis* in *Perſia* and *Media*, there were wont to abound Scorpions under every ſtone and turf, for which cauſe, when the King of *Perſia* was wont to go into *Media*, he gave commandement unto his people to ſcowr the way, by uſing all means to kill them, giving gifts to them that killed the greateſt number of Scorpions. There is an ancient Town in *Africk* called *Peſcara*, wherein the abundance of Scorpions do ſo much harm, that they drive away the inhabitants all the Summer-time every yeer untill *November* following. And in like ſort *Diodorus* declareth of many other places utterly forſaken to avoyd the multitude of Scorpions, as namely, one part of *Arabia*, and the Region of *India* about *Arrbatan*, or the river *Eſtumenus*, likewiſe neer the *Cynamolgi* in *Æthiopia*. There is alſo a City called *Alabanda*, ſtanding betwixt two hills or mountains, like as a Cheſt turned inward, which *Apollonius* calleth *Ciſtam inverſam Scorpionibus plenam*; a Cheſt turned inward full of Scorpions. In an Iſland of *Canaria* alſo are many Scorpions, and thoſe moſt peſtilent, which the *Turks* gather as often as they may to make Oyl of Scorpions. In *Italy*, eſpecially in the Mount *Teſtaceus* in *Rome*, are alſo Scorpions, although not ſo hurtfull as in *Africa*, and other places, and it is thought that *Pſylli*, whoſe nature cureth all kinde of venemous Serpents harms, did only for lucres ſake bring Serpents and Scorpions into *Italy*, and there left them, whereby they encreaſe to that number and multitude, which now we ſee them have. And thus much may ſuffice to have ſpoken of the Countreys of Scorpions.

Ælianus.
Varinus.
Strabo.
Ælianus.
Leo Afric.
Strabo.
Cordus.

The kindes of Scorpions I finde alſo to be many, but generally they may be referred unto twain, whereof one is called the Scorpion of the earth, and the other the Scorpion of the water or of the Sea, whoſe diſcourſe or hiſtory is to be found among the fiſhes, for we in this place doe only write of the Scorpion of the earth, which is alſo called by *Avicen* a wilde Scorpion. Of this kinde there are many differences. Firſt they differ in ſex, for there are males and females, and the female is greater then the male, being alſo fat, having a groſſer body, and a greater and ſharper ſting, but the male is more fierce then the female. Again, ſome of theſe have wings, and ſome are without wings, and ſome are in quantity greater then a Bean, as in *Helvetia*, neer *Rapirſnill* by *Zurick*. The Scorpions called *Vinulæ*, are of a reddiſh colour, as it were Roſe-water and Wine mixed together: and from thence it is probable that they took their name, and from their colour, the Authors have obſerved ſeven ſeverall kinndes.

Gillius.

The firſt is white, and the biting of this is not deadly.

The ſecond is reddiſh, like fire flamant, and this when it hath wounded cauſeth thirſt.

The third is of a pale colour, and therefore called by the *Grecians*, *Zophorides*, and theſe when they have wounded a man, cauſe him to live in continuall motion and agitation of his body, ſo as he cannot ſtand ſtill, but remaineth diſtract and without wit, alway laughing, like a fool.

The fourth kinde is greeniſh, and therefore termed *Chloros*, which having wounded, cauſeth intolerable trembling, ſhaking, aud quivering, and cold, ſo that if the patient be laid in the hot ſun, yet he thinketh that he freezeth like hayl, or rather feeleth hayl to fall upon him.

The fifth kinde is blackiſh pale, and it is called *Empelios*, it hath a great belly and broad, whereof the poyſon is great, and cauſeth after ſtinging and admirable heavineſſe, and ſorrowfull ſpirit. This kinde is called by *Geſner*, *Ventricoſum*, becauſe of the large belly, by the *Arabians*, *Algetarat*, and by *Ponzettus*, *Geptaria*. It eateth herbs, and the bodies of men, and yet remaineth inſatiable, it hath a bunch on the back, and a tayl longer then other Scorpions.

The ſixth is like a Crab, and this is called by *Ælianus* a flamant Scorpion, it is of a great body, and hath tongs and takers very ſolid and ſtrong, like the Gramuel or Creviſh, and is therefore thought to take the beginning from that Fiſh.

The ſeventh is called *Mellichlotus*, becauſe of the Honey-colour thereof, or rather Waxe-colour, and the wings it hath on the back, are like the wings of a Locuſt.

Alſo Scorpions do differ among themſelves in regard of their outward parts, for ſome of them have wings, as thoſe in *India*, which are ſpoken of by *Strabo*, *Nicander*, and others, and therefore many times when they ſettle themſelves to flie, they are tranſported by the winde from one Countrey to another.

Ælianus.
Pliny.

There is alſo another difference obſerved in their tayls, and in their ſtings, for ſome of them have ſix knots on their tayls, and ſome of them ſeven, and thoſe which have ſeven, are more hardy and fierce, but this falleth out very ſeldome that the Scorpions have ſeven knots in their tail, and therefore much ſeldomer to have nine, as writeth *Apollodorus*. For if any have ſeven, then is there likewiſe in them a double ſting, for there is alſo another difference, ſome of them having a ſingle, and ſome a double ſting, yea, ſometimes a treble one, and the ſting of the male is more thick and ſtrong then the ſting of the female.

Ariſtotle.

And to conclude, there is alſo a difference in motion, for ſome of them hold up their tayls from the earth, and theſe are not much venomous, others again draw them along upon the earth, a little rowled together, and theſe are moſt deadly and poyſonfull, ſome of them alſo flie from one Region to another, as we have ſhewed already.

Pliny.
Ælianus.

Again, there is nothing that giveth a man a more lively difference, then the conſideration of their poyſon, for the Scorpions of *Pharus*, and that part of the *Alpes* neer *Noricum*, do never harm any living Creature, and therefore are they ſuffered to abound, ſo as they live under every ſtone. In like ſort in the Iſle *Sanguola*, the Scorpions are like unto thoſe that are in *Caſtilia* or *Spain*, for there the ſting of the Scorpion doth not bring death, yet they cauſe a ſmarting pain, like the pain that cometh by the ſtinging of a Waſp, differing herein, that the Scorpions ſtinging is more laſting, and continueth longer then the ſtinging of a Waſp, for it tarrieth about a quarter of an hour, and by the biting thereof all are not pained alike, for ſome feel more, and ſome leſſer pain. Contrary to theſe are the Scorpions of *Peſcara in Afrik*, who ever with their tails wound mortally. And thoſe in *Scythia*, which are great, and hurtfull unto men and beaſts, killing Swine, who do not much care for any other Serpent, eſpecially the black Swine, who do alſo die the ſooner, if they drink immediately after the wound received. The like may be ſaid of the Scorpions of *Egypt*. And thus much for the different kindes of Scorpions, wherein nature produceth a notable variety, as may appear by all that hath been ſaid. Now it followeth that we likewiſe make ſome relation of their congruity one with another.

They are all little living Creatures, not much differing in proportion from the great Scarabee or Horſe-flie, except in the faſhion of their tails. Their back is broad and flat, diſtinguiſhed by certain knots or ſeams, ſuch as may be ſeen in Sea-Crabs, yet their head differeth, and hath no reſemblance with the Crab, becauſe it is longer, and hangeth farre out from the body, the Countenance whereof is fawning, and Virgin-like, and all the colour a bright brown. Notwithſtanding the fair face, it beareth a ſharp ſting in the tail, which tail is full of knots, wherewithall it pricketh and hurteth that which it toucheth. And this *Pliny* affirmeth to be proper to this Inſect, to have a ſting in the tayl and to have arms: For by arms he meaneth the two croſſe forks or tonges which come from it on both ſides, in the tops whereof are little things like pinſons, to detain and hold faſt, that which it apprehendeth, whiles it woundeth with the ſting in the tayl.

It hath eight feet, four on the one ſide, and four on the other, from whence, as we have ſhewed already, it is called *Octopos*. For the feet and arms thereof is very much like unto the Sea-crab, and therefore may not unfitly be called either the mother or the daughter thereof. They have alſo tongues, wherewithall they uſe often to lick and ſmooth over their own bodies. And ſeeing of all other things they love freſh and clean linnen, whereinto they inſinuate, and wrap themſelves when they can come unto it, then alſo firſt of all they cleanſe their whole bodies all over with their tongues, and next to their fleſh put on this clean linnen, as a man would put on a ſhirt.

As we have ſaid already it hath a tayl, wherein the ſting thereof is placed, but what this ſting is, divers Authors are of divers opinions concerning the ſame, ſome affirming it to be hollow, others denying it, finding in it no paſſage at all to contain or convey poyſon. *Ælianus* again ſaith, that there muſt needs be in it a paſſage or cavity, although it be ſo ſmall as by no means it can be perceived with the eyes of any mortall man, and in that ſting is the poyſon leſſe viſible, which when it ſtriketh, diſperſeth it ſelf inſtantly into the wound. But what ſhould this poyſon be? whether a ſubſtance or ſpirituall humour; ſurely a ſubſtance, which although it be *mole minima*, yet *facultate maxima*, that is, of great power, although of ſmall quantity. And therefore another Author (namely *Gerardus*) writeth hereof after this manner; *Scorpius e centro quod cavum eſſe creditur emittit humorem venenoſum*: That is to ſay, The Scorpion out of a hollow center, ſendeth forth a venemous humour. And of this venom we will afterwards diſcourſe more at large. Thus much in this place may ſerve to make known the ſeverall parts and members of this Serpent.

Now then it followeth that we inquire about the manner of their breed or generation, which I find to be double, as divers Authors have obſerved, one way is by putrefaction, and the other by laying of egges, and both theſe wayes are conſonant to nature, for *Lacinius* writeth, that ſome creatures are generated only by propagation of ſeed, ſuch are men, Vipers, Whales, and the Palm-tree, ſome again only by putrefaction, as the louſe, flie, graſſe, and ſuch like imperfect things, and ſome both wayes, as Mice, Scorpions, Emmets, Spiders, Purſlain, which firſt of all were produced by putrefaction: and ſince their generation are conſerved by the ſeed and egges of their own kinde. Now therefore we will firſt of all ſpeak of the generation of Scorpions by putrefaction, and afterward by propagation.

Pliny ſaith, that when Sea-crabs dye, and their bodies are dryed upon the earth, when the Sun entreth into *Cancer* and *Scorpius*, out of the putrefaction thereof ariſeth a Scorpion; and ſo out of the putrefied body of the Creviſh burned, ariſe Scorpions, which cauſed *Ovid* thus to write;

Concava littoreo ſi demas brachia cancro,
Cætera ſuppones terræ, de parte ſepulta
Scorpius exibit, caudaque minabitur unca.

And again;
Obrutus exemptis Cancer tellure lacertis,
Scorpius exiguo tempore factus erit.

In Engliſh thus;
If that the arms you take from Sea-crab-fiſh,
And put the reſt in earth till all conſumed be,
Out of the buried part a Scorpion will ariſe,
With hooked tayl doth threaten for to hurt thee.

And therefore it is reported by *Ælianus*, that about *Eſtamenus* in *India*, there are abundance of Scorpions generated, only by corrupt rain-water ſtanding in that place. Alſo out of the Baſilisk beaten into pieces and ſo putrefied, are Scorpions engendred. And when as one had planted the herb *Baſilica* on a wall, in the room or place thereof he found two Scorpions. And ſome ſay that if a man chaw in his mouth faſting this herb Baſill before he waſh, and afterward lay the ſame abroad uncovered where no ſun cometh at it for the ſpace of ſeven nights, taking it in all the day time, he ſhall at length finde it tranſmuted into a Scorpion, with a tayl of ſeven knots.

Ja. Lacinius.

Hollerius, to take away all ſcruple of this thing, writeth that in *Italy* in his dayes, there was a man that had a Scorpion bred in his brain, by continuall ſmelling to this herb Baſill, and *Geſner* by relation of an Apothecary in *France*, writeth likewiſe a ſtory of a young maid, who by ſmelling to Baſill, fell into an exceeding head-ache, whereof ſhe dyed without cure, and after her death being opened, there were found little Scorpions in her brain.

Kiranides.

Ariſtotle remembreth an herb which he calleth *Siſſimbria*, out of which putrefied Scorpions are engendred, as he writeth. And we have ſhewed already in the hiſtory of the Crocodile, that out of the Crocodiles egges do many times come Scorpions, which at their firſt egreſſion do kill their Dam that hatched them, which cauſed *Archelaus* which wrote Epigrams of wonders unto *Ptolemaus*, to ſing of Scorpions in this manner;

Philes.
Ælianus.

In vos diſſolvit morte, & redigit Crocodilum
Natura extinctum, Scorpii omnipotens.

Which may be Engliſhed thus;
To you by Scorpions death the omnipotent
Ruines the Crocodil in natures life extinct.

And thus much for the generation of Scorpions out of putrefaction. Now we will proceed to the ſecond manner of their generation, which is by propagation of ſeed: for although *Ponzettus* make ſome queſtion about their copulation, yet he himſelf inclineth to that opinion, as neerer unto truth, which attributeth carnall copulation unto them, and therefore he alledgeth the example of flies, which admit copulation although they engender not thereby. Wherefore we will take it for granted, that Scorpions lay egges after copulation, which hapneth both in the Spring and Autumne.

And theſe are for the moſt part in number eleven, upon which they ſit and hatch their young ones, and when once they are perfected within, thoſe egges (which are in ſight like the little worms out of which Spyders are engendred) then do they break their egges, and drive the young out. For as *Iſidorus* writeth, otherwiſe the old ſhould be deſtroyed of the young, even as are the Crocodiles. Some again ſay, that the old Scorpions do devour their young ones.

Pliny.

Being thus produced by generation, they live upon the earth, and thoſe which are bred of the Sea-crab, do feed upon the foam of the Sea-water, and a continuall white mould or chalk neer the Sea. But the Scorpions of *Æthiopia* do eat all kinde of worms, flyes, and ſmall Serpents. Yea thoſe Serpents whoſe very dung being troden upon by man, bringeth exulcerations. And a tryall that Scorpions eat flies, was made by *Wolphius* at *Montpelier*, for having a young one in a boxe, for one whole moneth together it lived upon flies, and grew by the devouring of them bigger, being put into the Glaſſe unto him.

They live among tiles and bricks very willingly, and for this cauſe they abound in *Rome* in the hill called *Teſtaceus*. They are alſo in *Bononia* found in the walls of old houſes, betwixt the ſtones and the morter. They love alſo clean clothes, as we have ſaid already, and yet they abhorre all places whereon the Sun ſhineth. And it ſeemeth that the Sun is utterly againſt their nature, for the ſame Scorpion which *Wolphius* had at *Montpelier*, lived in the Glaſſe untill one day he ſet it in the Sun, and then preſently after it dyed.

To conclude, they love hollow places of the earth neer gutters, and ſometimes they creep into mens beds, where unawares they do much harm: and for this cauſe the *Lybians*, who among other Nations are moſt of all troubled with Scorpions, do uſe to ſet their beds far from any wall, and very high alſo from the floor, to keep the Scorpions from aſcending up into them. And yet fearing all deviſes ſhould be too little to ſecure them againſt this evil, they alſo ſet the feet of their beds in veſſels of water, that ſo the Scorpion may not attempt ſo much as to climbe up unto them for fear of drowning. And alſo for their further ſafeguard, they were ſocks and hoſe in their beds ſo thick as the Scorpion cannot eaſily ſting through them.

Ælianus.

And if the bed be ſo placed that they cannot get any hold thereof beneath, then they climbe up to the ſieling, or cover of the houſe, and if there they finde any hold for their pinching legs to apprehend and faſten upon, then in their hatred to man-kinde, they uſe this policy to come unto him. Firſt one of them (as I have ſaid) taketh hold upon that place in the houſe or ſieling over the bed wherein they finde the man aſleep, and ſo hangeth thereby, putting out and ſtretching his ſting to hurt him, but finding it too ſhort, and not being able to reach him, he ſuffereth another of his fellowes to come and hang as faſt by him as he doth upon his hold, and ſo that ſecond giveth the wound: and if that ſecond be not able likewiſe, becauſe of the diſtance, to come at the man, then they both admit a third to hang upon them, and ſo a fourth upon the third, and a fifth upon the fourth, untill they have made themſelves like a chain, to deſcend from the top to the bed wherein the man ſleepeth, and the laſt ſtriketh him: after which ſtroke he firſt of all runneth away by the back of his fellow, and every one again in order, till all of them have withdrawn themſelves.

By this may be collected the crafty diſpoſition of this Scorpion, and the great ſubtilty and malice that it is endued withall in nature, and ſeeing they can thus accord together in harming a man, it argueth their great mutuall love and concord one with another, wherefore I cannot but marvell at them who have written that the old ones deſtroy the young, all but one, which they ſet upon their own buttocks, that ſo the Dam may be ſecured from the ſting and bitings of her ſon. For ſeeing they can thus hang upon one another, without harm, favouring their own kinde, I ſee no cauſe but that nature hath grafted much more love betwixt the old and the young ones, ſo as neither the old do firſt deſtroy the young, nor afterward, that young one preſerved, in revenge of his fellowes quarrell, killeth his Parents.

It is reported by *Ariſtotle*, that there is a hill in *Caria*, wherein the Scorpions do never ſting any ſtrangers that lodge there, but only the naturall born people of that Countrey. And hereunto *Pliny* and *Ælianus* ſeem to ſubſcribe, when they write that *Scorpiones extraneos leniter mordere*, that is, Scorpions bite ſtrangers but gently. And hereby it may be collected, that they are alſo by nature very ſagacious, and can diſcern betwixt nature and nature; yea the particular differences in one and the ſame nature. To conclude, Scorpions have no power to hurt where there is no bloud.

Albertus.

The naturall amity and enmity they obſerve with other creatures commeth now to be handled, and I finde that it wanteth not adverſaries, nor it again hath no defect of poyſon or malice to make reſiſtance and oppoſition, and to take vengeance on ſuch as it meeteth withall. The principall of all other ſubjects of their hatred, are Virgins and Women, whom they do not only deſire to harm, but alſo when they have harmed, are never perfectly recovered. And this is at all times of the day, but unto men they are moſt dangerous in the morning faſting, before they have vented their poyſon, and this is to be obſerved, that their tayls are never unprovided of ſtings, and ſufficient ſtore of venome to hurt upon all occaſions.

Ælianus.

The Lyon is by the Scorpion put to flight whereſoever he ſeeth it, for he feareth it as the enemy of his life, and therefore writeth S. *Ambroſe*, *Exiguo Scorpionis aculeo exagitatur Leo*, the Lion is much moved at the ſmall ſting of a Scorpion. Scorpions do alſo deſtroy other Serpents, and are likewiſe deſtroyed by them. There was one *Cellarius* a Phyſitian in *Padua*, who put together into one Viall, a Viper and a Scorpion, where they continually fought together, untill they had killed one another. The Swine of *Scythia*, which do ſafely eat all other kinde of Serpents and venemous beaſts, without all harm, yet are deſtroyed by eating of Scorpions, and ſo great is the poyſon of the *Sibarite* Scorpion, that the dung thereof being trode upon breedeth ulcers.

And as in this manner we ſee the virulence, and naturall evill of Scorpions againſt other living creatures, ſo now we are to conſider the terrors of the Scorpion, for God in nature hath likewiſe ordained ſome bodies, whereby the Scorpion ſhould be, and is driven away, ſcared and deſtroyed.

Firſt of all therefore men, which are the chief, and head of all living Creatures, do by naturall inſtinct, kill and deſtroy Scorpions, and therefore *Galen* writeth thus, Let us (ſaith he) kill Scorpions, Spiders, and Vipers, not becauſe they are evill in themſelves, but becauſe it is ingrafted in us by nature, to love that which is good unto us, but to hate and avert from that which is evill unto us, *Non conſiderantes genitum ne ita ſit an ſecus*, not conſidering whether it were ſo bred or not. As we have ſhewed their generation out of putrefaction to be by heat, ſo alſo is their deſtruction by heat, for they are not able to abide the heat of the Sun, and therefore, although they cannot live in cold Northern Countreys, but in the hotter, yet in the hotter they chooſe ſhadowes, holes of the earth, coverture of houſes, and ſuch like vile and obſcure places, to ſuccour and ſecure themſelves in.

It is alſo reported, that if Scorpions do at any time behold a Stellion, they ſtand amazed and *Galen.* wonderfully aſtoniſhed. The Viper alſo having killed a Scorpion, becometh more venemous, and the Ibis of *Egypt* deſtroyeth Scorpions. There are a little kinde of Emmets, called by the *Arabians*, *Getarets*, which are eaters of Scorpions. The quick-ſighted Hawks alſo, from whoſe piercing eye no Serpent can be hid, when he ſeeth a Scorpion, he neither feareth nor ſpareth it. It is alſo thought that Hares are never moleſted by Scorpions, becauſe if a man or beaſt be anoynted with *Ponzettus.* the rennet of a Hare, there is no Scorpion or Spider that will hurt him. Wilde Goats are alſo ſaid to live without fear of Scorpions, even as the *African Pſylli* of whom we have often ſpoken.

Now this vertue againſt Scorpions is not only in living things, but alſo in the Plants of the earth, and therefore *Seſtius* writeth, that the ſeed of Noſe-wort burned or ſcorched doth drive away Serpents, and reſiſt Scorpions and ſo doth the root of the Maſt-tree, and the ſeed of Violets, and the ſame vertue is aſcribed to the herb *Lychius*, which is Engliſhed Calves-ſnout, and alſo to the ſeed of wilde Parſnip.

The ſmell of Garlick and wilde Mints ſet on fire, or ſtrewed on the ground, and Dittany have the ſame operation: and above all other, one of theſe Scorpions burned, driveth away all his fel- *Arnoldus.* lowes which are within the ſmell thereof, and therefore this is a moſt uſuall thing in *Aſia* and *Africk*, *Aetius.* to perfume their houſes with Scorpions burned, and in ſtead thereof they make as it were little pills of *Galbanum ſandaracha*, with butter, and the fat of Goats, and thereof altogether make their perfume: alſo Bettony, and wilde Pellitory with Brimſtone. They uſe alſo to cover pans with certain things called by them *Alkitran* and *Aſa*, and with theſe they compaſſe the place wherein the *Palladius.* Scorpion lodgeth, and then it is found that they can never ſtir any more from that place. And *Raſis.* ſome in ſtead thereof, powr Oyl into their holes after them for the ſame effect. And the Husband-men of *Mauritania* doe tye and faſten to their bed-ſide, ſprigs of white thorn, and Haſell- *Strabo.* nuts, wherewithall by a ſecret antipathy in nature, they drive away and keep themſelves ſafe in *Plutarch.* their beds from the annoyance of Scorpions.

By touching of Hen-bane they lie dead and overcome, but if one touch them again with white Ellebore, they revive, and are releaſed from their former ſtupefaction. It is alſo ſaid that the leaves of water-mallowes do alſo aſtoniſh Scorpions, and ſo alſo doth the Radiſh-root. The Sea-crab with Baſil in her mouth deſtroyeth the Scorpion, and ſo doth Tunicle and Muſhrom of trees. *Gillius.* To conclude, the ſpittle of a man is death unto Scorpions; and therefore when a certain fellow took upon him to be a cunning Charmer, and by incantation to kill a Scorpion, he added to the words of his Charm a treble ſpitting in the mouth of the Serpent, and ſo it dyed: whereupon *Webbius* which was preſent, and ſaw this Charmer, did afterward by himſelf alone at home, make *Aetius.* triall of ſpittle without a Charm, and ſo found that it alone killeth Scorpions, eſpecially the ſpittle of a man faſting, or very thirſty. Moreover, there be certain Lands wherein no Scorpions will live, as that about *Clupea* in *Africk*, and the duſt of the Iſland *Gaulus* neer *Cercina*, being ſprinkled upon a *Solinus.* Scorpion, doth incontinently kill it. And ſo much alſo writeth *Hermolaus*, of the Region *Galatha*.

Theſe and ſuch like things are obſerved by our painfull and induſtrious Anceſtors about the nature of Scorpions, as well that which is hurtfull unto them, and they are afraid of, as thoſe to which they are enemies in nature, and wound mortally when they light upon them. It is remembred by *Textor* that *Orion* was ſlain by a Scorpion, whereupon the Poets have made many tales. They ſay, that when he was grown to be a man he was a great hunter, and a continuall companion of *Diana*, who glorying much in his own ſtrength, boaſted that he was able to overcome any Serpent or other wild beaſt, whereat the Gods being angry, for revenge, and taking down the pride of this young man, cauſed the earth to bring forth a Scorpion, who killed *Orion*. Whereat *Diana* was very ſorry, and therefore in lamentation of her champion, and for the good deeds he had done unto her, tranſlated him into heaven, cloſe by the conſtellation of the Bull. *Lucan* on the other ſide ſaith, that *Diana* ſent this Scorpion to kill him, envying his famous ſucceſs in hunting, and that afterward the Goddeſs taking pity on him, tranſlated him into heaven. Others write again, that he had his eyes put out by *Oenopion*, and that he came blind into the Iſland *Lemnos*, where he received a horſe of *Vulcan*, upon which he rode to the Sun-riſing, in which journey, he recovered again his eye-ſight, and ſo returning, he firſt determined to take revenge upon *Oenopion* for his former cruelty. Wherefore he came into *Creet*, and ſeeking *Oenopion*, could not finde him, becauſe he was hid in the earth by his Citizens, but at laſt coming to him, there came a Scorpion and killed him for his malice, reſcuing *Oenopion*. Theſe and ſuch like fables are there about the death of *Orion*, but all of them joyntly agree in this, that *Orion* was ſlain by a Scorpion. And ſo ſaith *Anthologius* was one *Panopæus* a Hunter.

There is a common adage, *Cornix Scorpium*, a Raven to a Scorpion, and it is uſed againſt them that periſh by their own inventions: when they ſet upon others, they meet with their matches, as a Raven did when it preyed upon a Scorpion, thus deſcribed by *Alciatus*, under his title *Juſta ultio*, juſt revenge, ſaying as followeth.

Raptabat volucer captum pede corvus in auras
Scorpion, audaci præmia parta gulæ.
Aſt ille infuſo ſenſim per membra veneno,
Raptorem in ſtygias compulit ultor aquas.
O riſu res digna! aliis qui fata parabat,
Ipſe periit, propriis ſuccubuitque dolis.

Which may be Engliſhed thus;

The ravening Crow for prey a Scorpion took
Within her foot, and therewithall aloft did flie,
But he impoyſon'd her by force and ſtinging ſtroke,
So ravener in the Stygian Lake did die.
O ſportfull game! that he which other for bellyes ſake (did kill,
By his own deceit ſhould fall into deaths will.

There

Gyraldus. There be ſome learned Writers, who have compared a Scorpion to an Epigram, or rather an Epigram to a Scorpion, becauſe as the ſting of the Scorpion lyeth in the tayl, ſo the force and vertue of an Epigram is in the concluſion, for *vel acriter et ſalſe mordeat, vel jucunde & dulciter delectet,* that is, either let it bite ſharply at the end, or elſe delight pleaſingly. There be many wayes of bringing Scorpions out of their holes, and ſo to deſtroy and take them, as we have already touched in part, unto which I may adde theſe that follow: A perfume made of Oxe-dung, alſo Storax, and Arſenick. And *Pliny* writeth, that ten Water-crabs beaten with Baſil is an excellent perfume for this purpoſe, and ſo is the aſhes of Scorpions. And in *Padua* they uſe this art, with ſmall ſticks *Cardan.* or ſtraw they touch and make a noyſe upon the ſtones and morter wherein they have their neſts, then they thinking them to be ſome flies for their meat, inſtantly leap out, and ſo the man that deluded them is ready with a pair of tongs or other inſtrument to lay hold upon them and take them, by which means they take many, and of them ſo taken, make Oyl of Scorpions. And *Conſtantius* writeth, that if a mans hand be well anoynted with juice of Radiſh, he may take them without danger in his bare hand.

In the next place we are to proceed to the venom and poyſon of Scorpions, the inſtrument of ſting whereof, lyeth not only in the tail, but alſo in the teeth, for as *Ponzettus* writeth, *Ledit ſcorpius morſu et ictu*, the Scorpion harmeth both with teeth and tail, that is, although the greateſt harm do come by the ſting in the tayl, yet is there alſo ſome that cometh by their biting. This poyſon of Scorpions, (as *Pliny* out of *Apollodorus* writeth) is white, and in the heat of the day is very fervent and plentifull, ſo as at that time they are inſatiably and unquenchably thirſty, for not only the wilde or wood Scorpion, but alſo all other are of a hot nature, and the ſymptomes of their bitings are ſuch as follow the effects of hot poyſons: and therefore ſaith *Raſis*, all their remedies are of a cold quality. Yet *Galen* thinketh otherwiſe, and that the poyſon is cold, and the effects thereof are alſo cold. For which cauſe *Rondeletius* preſcribeth Oyl of Scorpions to expell the ſtone, and alſo the cure of the poyſon is by ſtrong Garlick and the beſt Wine, which are hot things. And therefore I conclude, that although Scorpions be moſt hot, yet is their poyſon of a cold nature.

In the next place, I think it is needfull to expreſſe the ſymptomes following the ſtriking or ſtinging of theſe venemous Scorpions, and they are (as *Aetius* writeth) the very ſame which follow the biting or poyſon of that kinde of great *Phalanx* Spider, called alſo *Teragnatum*, and that is, they are in ſuch caſe as thoſe perſons be which are ſmitten with the Falling ſickneſſe.

He which is ſtung by a Scorpion, thinketh that he is preſſed with the fall of great and cold hayl, being ſo cold, as if he were continually in a cold ſweat, and ſo in ſhort ſpace the poyſon diſperſeth it ſelf within the skin, and runneth all over the body, never ceaſing untill it come to poſſeſſe ſome predominant or principall vitall part, and then followeth death. For as the skin is ſmall and thin, ſo the ſting pierceth to the bottom thereof, and ſo into the fleſh, where it woundeth and corrupteth either ſome vein, or arterie or ſinew, and ſo the member harmed ſwelleth immediate-
Aetius. ly into an exceeding great bulk and quantity and aking, with inſufferable torment. But yet (as we
Ælianus. have already ſaid) there is a difference of the pain, according to the difference of the Scorpion that ſtingeth. If a man be ſtung in the lower part of his body, inſtantly followeth the extenſion of his virile member, and the ſwelling thereof: but if in the upper part, then is the perſon affected with cold, and the place ſmitten is as if it were burned, his countenance or face diſtorted, glewiſh ſpots about the eyes, and the tears viſcous and ſlimy, hardneſſe of the articles, falling down of the fundament, and a continuall deſire to egeſtion, foaming at the mouth, coughing, convulſions of the brain, and drawing the face backward, the hair ſtands upright, paleneſſe goeth over all the body, and a continuall pricking like the pricking of needles.

Alſo, *Gordonius* writeth, that if the prick fall upon an artery, there followeth ſwouning, but if on a nerve, there ſpeedily followeth putrefaction and rottenneſſe. And thoſe Scorpions which have wings, make wounds with a compaſſe like a bow, whoſe ſucceeding ſymptomes are both heat and cold, and if they hurt about the canicular dayes, their wounds are very ſeldome recovered.

The *Indian* Scorpions cauſe death three moneths after their wounds. But moſt wonderfull is that which *Strabo* relateth of the *Albenian* Scorpions and Spiders, whereof he ſaith are two kindes, and one kinde killeth by laughing, the other by weeping. And if any Scorpion hurt a vein in the head, it cauſeth death by madneſſe, as writeth *Paracelſus*. When an Oxe or other beaſt is ſtrucken with a Scorpion, his knees are drawn together, and he halteth, refuſing meat; out of his noſe floweth a green humour, and when he is laid, he careth not for riſing again.

Theſe and ſuch like are the ſymptomes that follow the bitings and ſtingings of Scorpions, for the cure whereof I will remit the Reader to that excellent diſcourſe written by *Wolphius*, wherein are largely and learnedly expreſſed, whatſoever Art could collect out of nature. And ſeeing we in our Countrey are free from Scorpions, and therefore ſhall have no need to fear their poyſon, it ſhall not I truſt offend my Reader, if I cut off the relation of Scorpions cures, as a thing which cannot benefit either the Engliſh Reader, or elſe much adorn this Hiſtory, and ſo I will proceed to the medicines drawn out of Scorpions.

The application or uſe of Scorpions in medicine, is either by powder or by Oyl, or by applying them bruiſed to their own wounds, wherefore every one of theſe are to be handled particularly; and firſt of all for the powder, it is made by uſtion or burning in this manner. They take ten Scorpions and put them alive into a new earthen pot, whoſe mouth is to be dammed up with loam or ſuch like ſtuffe, then muſt it be ſet upon a fire of Vine-tree-ſhreds, and therein muſt the pot ſtand day and night untill all within it be conſumed to powder, and you ſhall know by their white colour when they be enough; otherwiſe, if they be brown or burned, they muſt be continued longer, and the uſe of this powder is to expell the ſtone.

Again, they uſe to make this powder another way, they take twenty Scorpions, and put them in a little earthen pot with a narrow mouth, which mouth muſt be ſtopped, and then the pot put into a Furnace by the ſpace of ſix hours, which Furnace muſt alſo be kept cloſe within, and with a gentle fire: then after ſix hours take off the pot, and bruiſe the Scorpions into powder, and keep that powder for the uſe aforeſaid. There are other wayes alſo to prepare this powder, but in all preparations the attendant and aſſiſtant muſt take heed of the fume or ſmoak that cometh from it, for that is very venemous and contagious.

But beſides, there are many things to be obſerved herein, as firſt, that the Scorpions be alive, and that they be killed in Oyl, then, that they be put in whole, with every member, without mutilation, and that the Scorpions appointed for this confection, be of the ſtrongeſt poyſon, and the time of their collection to be when the Sun is in *Leo*, and not in *Scorpius*, as ſome without reaſon have imagined.

The Oyl ſo made, is diſtinguiſhed into two kindes, one ſimple, and the other compound. The ſimple is made of a convenient number of Scorpions, (as it were twenty if they be great, and more if they be little) and they being put into a glaſſe veſſel, Oyl of bitter-Almonds muſt be powred upon them, and ſo the veſſel ſtopped cloſe and ſet in the Sun by the ſpace of thirty dayes, and then ſtirred and uſed. Yet the women of *Ferrara* uſe Oyl-olive in ſtead of Oyl of bitter Almonds, and alſo obſerve no quantity of Oyl, but fill the pot full, and likewiſe no order in the number of the Scorpions, putting one to day and another to morrow, and ſo more the next week or moneth, as they can finde them.

Braſavolus.

The compound-oyl is thus made, they take round Aſtrologe, Cypreſſe, and Gentian, the roots of Capars, and upon theſe they pour Oyl of bitter Almonds, and ſoak the roots in the Oyl in the hot ſun for the ſpace of twenty dayes, then take they a complete number of Scorpions, from betwixt ten to fifteen, theſe they put again to the Oyl, and ſo ſtop up the mouth again, and ſet it the ſecond time in the ſun thirty dayes, and afterward ſtrain it and uſe it. This compound-Oyl is not ſo much approved by *Braſavolus*, as the former ſimple, becauſe the firſt hath more Scorpions, and the ſecond is ſtuffed or ſeaſoned with ſpices.

The green Scorpion which is bred of Baſill, having ſeven knots in the tayl, being beaten and pounded with the herb Scorpion, and ſo made into pills, then dryed and put into a glaſſe, are very profitable to him that hath the Falling-ſickneſſe, if he take of them three every morning faſting in temperate Wine, but theſe being given to a ſound man putteth him clean out of his wits. If a man take a vulgar Scorpion and drown the ſame in a porringer of Oyl in the wane of the Moon, and therewithall afterward anoynt the back from the ſhoulders to the hips, and alſo the head and forehead, with the tips of the fingers and toes of one that is a demoniack or a lunatick perſon, it is reported, that he ſhall eaſe and cure him in ſhort time. And the like is reported of the Scorpions ſting joyned with the top of Baſil wherein is ſeed, and with the heart of a Swallow, all included in a piece of Harts skin.

Kiranides.

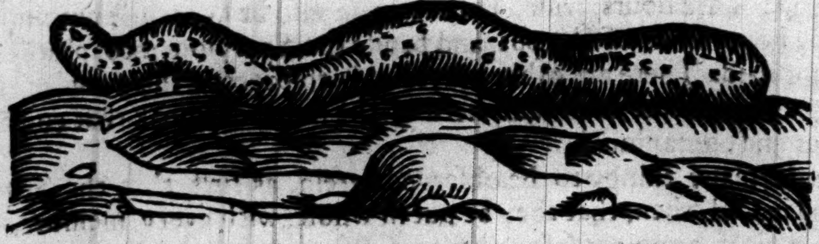
The Oyl of Scorpions made of common Oyl-olive, is good for the pain in the ears infuſed by diſtillation; alſo it cureth a Pleuriſie in this manner. They take meal out of a Windmill, and make thereof with water, paſte, or little cakes, in quantity like a *French* Crown, theſe muſt be ſod in a frying-pan in Oyl of Scorpions, and ſo applyed as hot as can be to the place where the pricking is, and ſo kept to the ſame very hot, and when it beginneth to be cold, let new be applyed ſtill, nine times together, ſucceſſively one time after another. Scorpions bruiſed in new ſweet Wine, doe cure the Kings-evil. The aſhes of a Scorpion infuſed by the yard into the bladder, breaketh and diſperſeth both the ſtone of the bladder and the reyns. And the like operation hath a vulgar Scorpion eaten with vinegar and Roſe-cakes applyed to the gowty members, it many times eaſeth the inflaming pains thereof.

Alexius.

Galenus.

The Oyl of Scorpions is very available in the time of Plague, both by Oyntment and alſo in potion: wherewithall one did affirm to *Wolphius* that he gained a great ſumme of money, which he prepared in this manner. He took a hundred Scorpions, and ſod them in the oldeſt Oyl-olive he could get, untill ſuch time as the Scorpions were conſumed, then did he ſtrain them through a linnen cloth, adding unto it an ounce of Rubarb, and ſo ſhutting it cloſe in a glaſſe bottle, he ſet it forty dayes together in the ſun, and afterward he gave of it to be uſed in time of infection, adviſing them that had it to apply it in oyntment to the pulſe, heart, hinder part of the head, neck and noſtrils. And if a man began to be ſick, within twelve hours after the firſt ſenſe of his pain, he was annnoynted herewith about the tumour, and then was it launced. This oyntment is alſo commended againſt all manner of poyſon, not onely of other Serpents and venemous beaſts, but alſo of the Scorpion it ſelf. And thus much for the hiſtory of the Scorpion.

Of the SCYTALE.



THis Serpent called by the *Grecians Scytale*, is likewiſe termed by the *Latiniſts*, *Scytalis*, and by ſome *Scicalis*, *Picalis*, *Sciſcetalis*, and *Seyſeculus*, and by *Albertus*, *Situla*, which we have already interpreted a Dipſas, but all of them are moſt manifeſtly corrupted from *Scytale*, the firſt *Grecian* word. And therefore I will not ſtand to confute them that call it alſo *Cæcilia*, a blinde worm, becauſe (after the manner of other Serpents) it eateth no Fennell, but this *Cæcilia* or blinde Worm, we ſhall afterward demonſtrate to be our Engliſh Slow-worm. This Scytall is very full of marks or ſpots upon the back, ſo variable and delectable, that it poſſeſſeth the beholders with admiration, and almoſt bringeth them aſleep looking thereon; for it is alſo ſlow, and moveth ſoftly, wherefore it cannot purſue where it would do harm; in ſtead therefore of celerity, theſe naturall ſpots doe hold them that it doth deſire to harm, like as they were ſtupefied and aſtoniſhed. And in this brightneſſe of the ſcales, firſt of all it muſt lay aſide the winter-skin, or elſe there appeareth not any ſplendour at all. And it is alſo ſaid to be ſo hot and fervide, that it caſteth skin in the Winter, according to this ſaying of *Lucan*;

Et Scytale ſparſis etiam nunc ſola pruinis
Exuvias poſitura ſuas.———

That is in Engliſh thus;

None but the Scytall while Winter-froſts abide,
Out of his ſpotted skin and Scales doth glide.

The outward form or viſible proportion of this Serpent, is like that which we have already called a Double-head, and the *Latines*, *Amphisbena*, except that the tayl hereof is flatter and thicker. The length of this Serpent is like the longeſt Worms of the earth, and the thickneſs like the helve or handle of a ſpade. And the greateſt difference betwixt this and the Double-head, is that this goeth but one way, and the Double-head goeth as well one way as another: and the colour hereof is like the colour of the other. The generall deſcription of this Serpent is thus expreſſed by *Nicander*;

Bifronti ſimilem reperis Scytalam Amphisbenæ
Pinguior eſt tamen, & cauda, quæ nulla fere exit,
Craſſior, ut quantum ſolita eſt comprendere lignum,
Curva manus ſtrictum quoties tenet ipſa ligonem.
Tam prolixa, vagans pluvio quam reptile cœlo,
Quod fœcunda genus ſua gignit viſcera tellus.
Nec poſtquam juvenis venienti tempore veris,
Magna Deum quando profert ſerpentia mater,
Liquerit obſcuram conſueta cubilia petram,
Et nitidos tepido ſub ſole extriverit artus,
Pendentis ſe fœniculi teneram exedit herbam,
Sed per opaca morans imi declivia montis
Se tenet, & multo graviter latet obruta ſomno,
Eque alta ſua conquirit ſibi pabula terra:
Nec licet id magno cupiat, ſtudeatque labore
Areſcente ſitim potis eſt depellere fauce.

Which may be Engliſhed thus;

The Scytall like the Double-head thou ſhalt in feature finde,
Yet is it fatter, and tayl that hath no end much thicker is,
As big as crooked hand is wonted for to winde
The haft and helve of digging ſpade the earth that rifts.
As long it is as that thin crawling worm which heavens rain
Begets on fruitfull earth, when bowels warmly mayſtened are,
And when the Mother-goddeſſe great ſends forth her creeping train,
Which is Teers-youth, freſh time of Spring, both calm and fair.
Then leaves it off his wonted bed in rock obſcure,
And in what ſun he ſtretches out his limbs and ſinewes all,
Eating the new ſprung-blades of Fennell-herb, ſo putting teeth in ure,
In holes of the declining hills ſo keeps both great and ſmall,
Where time in deepeſt ſleep of buried nature it doth paſſe,
And being hungry, the earth in top of hole it eats,
Quenching the thirſt by force of dryeſt chappes as graſſe,
Though without pain, deſtreleſſe it ſeeks theſe drinks and meats.

The biting of this Serpent is like the biting of the Double-head, and therefore the cure is in the ſame manner, wherefore I ſhall not need to repeat the ſigns thereof, or the cure in this place. And ſo I will conclude the ſtory of this Serpent.

Of the SEA-SERPENTS.

Among the manifold kinds of Sea-ſerpents, as well known as unknown, (whereof ſome are like the Lamprey, ſome like the *Myrus*, and many other like the Serpents of the earth, except in their head, as *Ariſtotle* writeth, for that is more like the head of a Conger then a Serpent) it peculiarly hath one kinde, in colour and form not unlike an Eel, in length about three cubits, in the gills and finnes reſembling a Conger, but it hath a longer ſnout or beak, which is alſo fortified inwardly with very many ſmall ſharp teeth, the eyes not ſo great, a ſmooth or pield skin, and hanging over at the back, having no ſcales, ſo as it may eaſily be fleyed. The belly of it is betwixt red and white, and all the body over is ſet with ſpires, ſo as being alive it is not handled without danger. And this is by *Pliny* called the Dragon of the Sea, which cometh out of the Sea into the ſands, and therein with an admirable celerity and dexterity maketh his lodging place. For the ſnout thereof is ſharper then the Serpents of the earth, therefore therewith it diggeth and hideth it ſelf in the hole or hollow place which it hath made. This is alſo called by *Pliny Ophidion*, but I think it better to follow *Ariſtotle*, who doth call it *Ophis thalattios*, a Sea-ſerpent, the colour whereof is blacker or dimmer then the Conger.

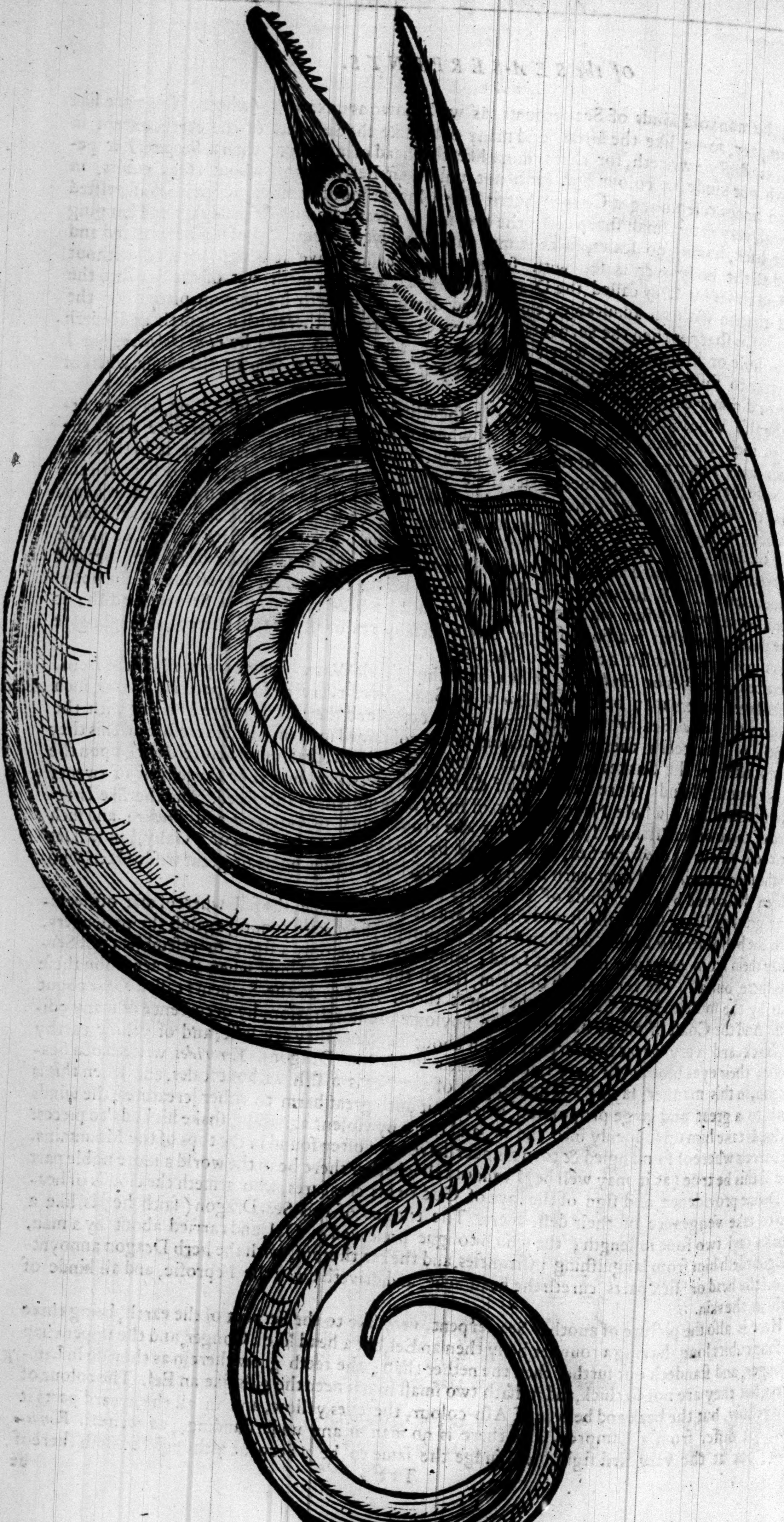
There be alſo Vipers of the Sea, which are in ſhew little fiſhes, about a cubit long, having a little horn in their forehead, the biting or ſting whereof is very deadly, and therefore when the Fiſher-men have taken any one of theſe, they inſtantly cut off the head and bury it in the ſand, but the body they eat for good meat: yet theſe Serpents are thought to be none other then the Fiſhes called *Aranei*, or Spider-fiſhes, ſaving that they are ſaid to have a ſharp ſting in their head, & this a horn, for all Water or Sea-ſerpents have harder and leſs heads then the Serpents of the land.

In the *Germane* Ocean there is found a Serpent about the bigneſſe of a mans leg, which in the tayl carryeth a ſting as hard as any horn, this haunteth only the deepeſt part of the Sea, yet is it ſometime taken by the Fiſher-men, and then they cut off the tail, and eat the reſidue of the body. Yet I will not expreſly define whether this may be called a Sea-Serpent, or a Serpentine-fiſh; it may be it is the ſame that is a Fork-fiſh, or Ray, which by reaſon of the tayl thereof, it might give occaſion to *Albertus* to call it a Serpent of the Sea.

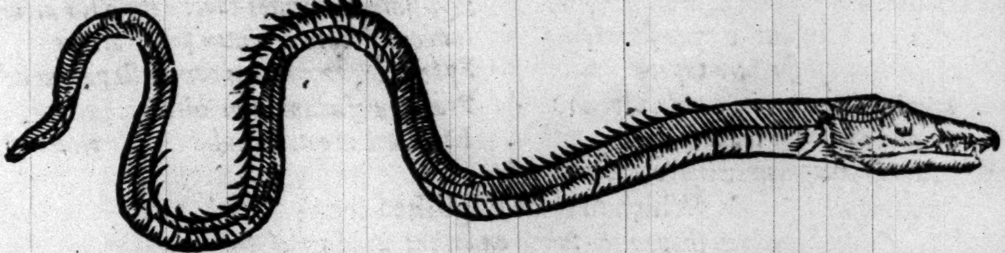
There be alſo Snakes or *Hyders* in the Sea, for although all Water-ſerpents, as well of the freſh, ſalt, and ſweet waters may be called *Hyders*, or Snakes, yet there be ſome peculiar Snakes, ſuch *Ællanus.* are thoſe in the *Indian* Sea, where they have broad tayls, and they harm more by biting with the ſharpneſſe of their teeth, then by any venom that is contained in them; and therefore in this they ſomewhat reſemble the Snakes of the earth. And *Pliny* writeth, that once before *Perſis*, upon the coaſts of certain Iſlands, there were ſeen of theſe Sea-hyders very many, of the length of twenty *Solinus.* cubits, wherewithall a whole Navy or fleet of ſhips were mightily affrighted. And the like is reported of three other Iſlands, lying betwixt the promontory of *Carmania* and *Arabia*; and ſuch were thoſe alſo in the *African* Sea, who are ſaid by *Ariſtotle* not to be afraid of a Gally, but will ſet upon the men therein, and over-turn it. And he himſelf ſaw many bones of great wilde Oxen, who had been deſtroyed by theſe kinde of Sea-ſnakes or *Hyders*.

The greateſt River that falleth into the red Sea, is called *Sinthus*, the fall whereof afar off, ſeemeth to the beholders to be like winding Snakes, as though they were coming againſt the paſſengers, to ſtay them from entrance into that Land; and there is not only a ſight or reſemblance of Serpents there, but alſo the very truth of them, for all the Sea-men know when they are upon theſe coaſts, by the multitude of Serpents that meet them. And ſo do the Serpents called *Graa* about *Perſis*. And the Coaſt of *Barace* hath the ſame noyſome premonſtration, by occurrence of many odious, black, and very great Sea-ſerpents. But about *Barygaza* they are leſſe, and of yellow earthy colour; their eyes bloody, or fiery red. and their heads like Dragons. *Keranides* writeth of a Sea-Dragon, in this manner, ſaying: The Dragon of the Sea is a fiſh without ſcales, and when this is grown to a great and large proportion, whereby it doth great harm to other creatures, the winds or clouds take him up ſuddenly into the air, and there by violent agitation, ſhake his body to pieces: the parcels whereof ſo mangled & torn aſunder, have been often found in the tops of the Mountains. And if this be true (as it may well be) I cannot tell whether there be in the world a more noble part of Divine providence, and ſign of the love of God to his creatures, who armeth the clouds of heaven to take vengeance of their deſtroyers. The tongue of this Sea-Dragon (ſaith he) is like a Horſes tayl, two foot in length; the which tongue preſerved in Oyl, and carried about by a man, ſafeguardeth him from languiſhing infirmities, and the fat thereof, with the herb Dragon annoynted on the head or ſick parts, cureth the head-ache, and driveth away the Leproſie, and all kinde of ſcabs in the skin.

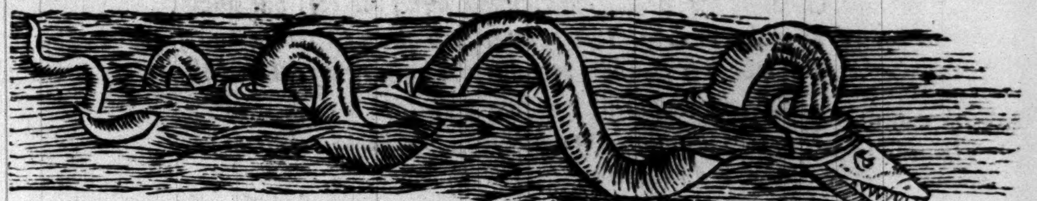
Here is alſo the picture of another Sea-ſerpent, very like to the Serpent of the earth, being three or four cubits long, having a rounder belly then an Eel, but a head like a Conger, and the upper chap is longer, and ſtandeth out further then the nether chap; the teeth grow therein as they do in Lampreys, *Rondoletius.* but they are not ſo thick, and it hath two ſmall finnes neer the gills like an Eel. The colour of it is yellow, but the beak and belly is of Aſh-colour, the eyes yellow, and in all the inward parts it doth not differ from a Lamprey, and there is no man of any underſtanding, (as writeth *Rondeletius*) but at the very firſt ſight, will judge the ſame to be a Serpent although the fleſh thereof



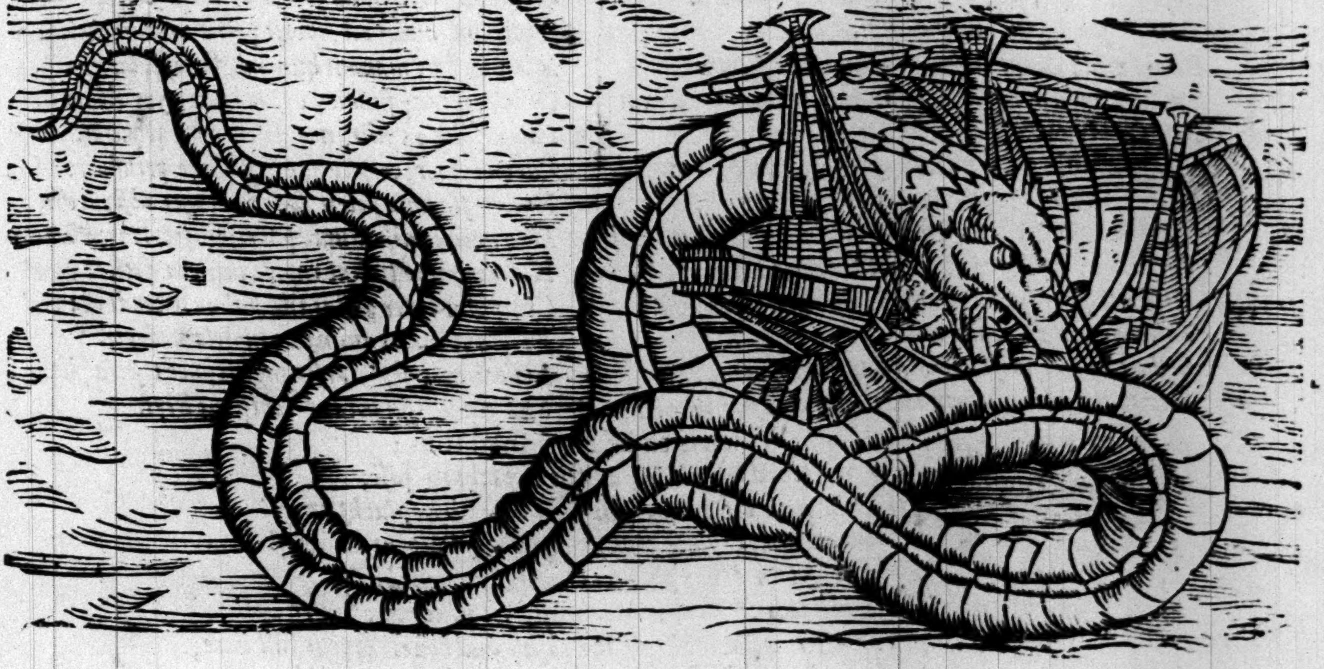
be no more harmfull then the Conger or Lamprey; yet for ſimilitude with other Serpents, I could not chuſe but expreſſe the ſame in this place,



There be alſo in the *Swevian* Ocean or *Balthick* ſea, Serpents of thirty or forty foot in length, whoſe picture is thus deſcribed, as it was taken by *Olaus Magnus*, and he further writeth, that theſe do never harm any man untill they be provoked.



The ſame Author alſo expreſſeth likewiſe the figure of another Serpent, of a hundred and twenty foot long, appearing now and then upon the coaſts of *Norway*, very dangerous and hurtfull to the Sea-men in calms and ſtill weather, for they lift up themſelves above the hatches, and ſuddenly catch a man in their mouths, and ſo draw him into the Sea out of the Ship: and many times they overthrow in the waters a laden Veſſel of great quantity, with all the wares therein contained. And ſometimes alſo they ſet up ſuch a ſpire above the water, that a Boat or little Bark without ſayls may paſſe through the ſame. And thus much for the Sea-ſerpents.



Of the SEPS or SEPEDON.

ALthough I am not ignorant that there be ſome which make two kindes of theſe Serpents, becauſe of the two names rehearſed in the title, yet when they have laboured to deſcribe them ſeverally, they can bring nothing or very little wherein their ſtory doth not agree, ſo as to make twain of them, or to handle them aſunder, were but to take occaſion to tautologize, or to ſpeak one thing twice. Wherefore *Geſner* wiſely pondering both parts, and after him *Carronus*, deliver their opinions, that both theſe names do ſhew but one Serpent, yet according to their manner, they expreſſe them as if they were two. For all their writings do but miniſter occaſion to the Readers to collect the truth out of their labours, wherefore I will follow their opinion, and not their example. Sepedon and Seps cometh of *Sepein*, becauſe it rotteth the body that it biteth: in colour it neerly reſembleth the Hæmorrhe, yet it uſually goeth by ſpires and half-hoops, for which cauſe as it goeth, the quantity cannot be well diſcerned, the pace of it being much ſwifter then the Hæmorrhe. The wound that it giveth is ſmarting, entring deep and bringing putrefaction, for by an inexplicable celerity, the poyſon paſſeth over all the body, the hair rotteth and falleth from all parts, darkneſſe and dimneſſe is in the eyes, and ſpots upon the body, like as if a man had been burned in the Sun. And this Serpent is thus deſcribed unto us by *Nicander*;

Jam quæ Sepedonis ſpecies ſit, qualeque corpus
Accipe: diverſa tractum ratione figurat.
Quin etiam mutilæ nulla inſunt cornua fronti,
Et color, hirſuti qualem eſt ſpectare tapetis,
Grande caput, brevior dum currit, cauda videtur:
Quam tamen obliquo majorem tramite ducit.
Quod fit ab hoc vulnus, magnos nocuoſque dolores
Excitat, interimens quia fundit & ipſe venenum,
Quo ſata marcentes tabes depaſcitur artus,
Indeque ſiccata reſolutus pelle capillus
Spargitur, & volitans candentis pappus achantæ,
Præterea fœdum turpi vitiligine corpus,
Et veluti urenti maculas à ſole videre eſt.

Which may be Engliſhed thus;

Sepedons ſhape now take, and what his form of body is,
It doth not go as Hæmorrhe doth, but traileth diverſly.
His powled head of Hæmorrhs horns full happily doth miſſe,
And colours are as manifold as works of Tapeſtry:
Great is his head, but running ſeems the tail but ſmall,
Which winding, it in greater path draws after to and fro,
But where it wounds, by pains and torments great it doth appall,
Killing the wounded, infuſing poyſon ſo,
Whereby conſumed are the lean and ſlender ſinews,
And dryed skin lets hair fall off apace,
Like as the windes drive whites from top of thiſtle Carduus,
Beſides the body filth, as with Sun parched, looſeth grace.

Thus doth *Nicander* deſcribe the Sepedon: now alſo we will likewiſe relate that which another Poet ſaith of the Seps, that both compared together, may appear but one, therefore thus writeth *Lucan*, upon occaſion of one *Sabellus* wounded by this Serpent.

———Miſerique in crure Sabelli
Seps ſtetit exiguus, quem flexo dente tenacem
Auulſitque manu, piloque affixit arenis.
Parva modò Serpens, ſed qua non ulla cruentæ
Tantum mortis habet: nam plagæ proxima circum
Fugit rapta cutis, pallentiaque oſſa retexit.
Jamquæ ſinu laxo nudum eſt ſine corpore vulnus:
Membra natant ſanie, ſuræ fluxere, ſine ullo
Tegmine poples erat: femorum quoq; muſculus omnis
Liquitur: & nigra diſtillant inguina tabe.
Diſſiluit ſtringens uterum membrana, fluuntque
Viſcera, nec quantum toto de corpore debet,
Effluit in terras ſævum, ſed membra venenum
Decoquit: in minimum mors contrahit omnia virus.
Vincula nervorum, & laterum textura, cavumque
Pectus, & abſtruſum fibris vitalibus omne,
Quicquid homo eſt, aperit peſtis: natura profana
Morte patet: manant humeri, forteſq; lacerti:
Colla caputq; fluunt, callido non ocyus Auſtro
Nix reſoluta cadit, nec ſolem cera ſequetur.
Parva loquor, corpus ſanie ſtillaſſe peruſtum:
Hoc & flamma poteſt, ſed quis rogus abſtulit oſſa,
Hæc quoque diſcedunt, putreſq; ſecuta medullas
Nulla manere ſinunt rapidi veſtigia fati.
Cyniphias inter peſtes tibi palma nocendi eſt:
Eripiunt omnes animam, tu ſola cadaver.
Mole brevis ſeps, peſte ingens, nec viſcera ſolum,
Sed ſimul oſſa vorans tabificus Seps.

Which is to be Engliſhed thus;

On wretched Sabels leg a little Seps hung faſt,
Which with his hand from hold of teeth he pluckt away
From wounded place, and on a pile the Serpent all agaſt
He ſtaked in ſands, to him O woful wretched day,
To kill this Serpent is but ſmall, yet none more power hath,
For after wound falls off the skin, and bones appear full bare,
As in an open boſome, the heart whole body gnaweth,
Then all his members ſwam in filth: corruption did prepare
To make his ſhanks fall off, uncovered were knee-bones,
And every muſcle of his thigh reſolved, no more did hold,
His ſecrets black to look upon, diſtilled all Conſumptions,
The rim of belly brake out fierce, which bowels did infold,
Out fell his guts on earth, and all that corps contain,
The raging venom ſtill beating members all,
So death contracted all by little poyſons main,
Unlooſing nerves, and making ſides on ground to fall:
This plague the hollow breaſt and every vital part
Abſtruſed, where the fibres keep the life in ure,
Did open unto death: The life, the lungs, the heart.
O death profane, and enemy unto nature.
Out flow the ſhoulders great, and arm-blades ſtrong,
Both neck and head guſh out in matter, all doth run.
No ſnow doth melt ſo ſoon the Southern blaſt among,
Nor wax ſo faſt diſſolve by heat of ſhining Sun.
Theſe things which now I ſpeak I do account but ſmall,
That corps ſhould run with filthy core, may cauſed be by flame;

Yet bones are ſpared in fire, here all away they fall,
Of them and marrow ſweet, fate lets no ſign remain.
Among the Cyniph plagues, this ſtill ſhall bear the bell,
The ſoul they take, this ſoul and carkaſſe both,
The Seps, though ſhort it be, in force it is a hell,
Devouring bones, the body all undoth.

Thus you hear that more largely expreſſed by *Lucan* of the Seps, which was more briefly touched by *Nicander* of the Sepedon, and all cometh to one end, that both kill by putrefaction. The length of this Serpent is about two cubits, being thick toward the head, but thin and ſlender toward the tail. The head thereof is broad, and the mouth ſharp, it is of many colours, ſo as ſome have thought that it could change colour like a Chamæleon. The four under teeth are hollow, and in them lyeth the poyſon, which are covered over with a little skin.

Pauſanias affirmeth that he himſelf ſaw one of them, and that *Egyptus* the ſon of *Elatus*, a King of *Arcadia* was ſlain by one of theſe. They live in Rocks, in hollow places of the Valleys, and under ſtones, and they fear no Winter, acording to this verſe of *Pictorius*.

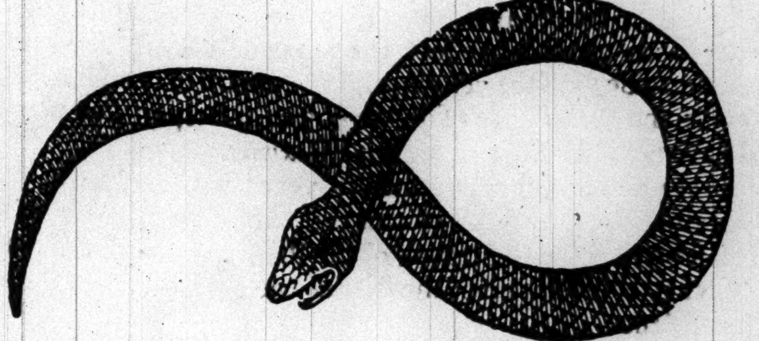
Hic hyemis calidus frigora nulla timet.
Which may be Engliſhed thus;
Of Winters cold it hath no fear,
For warm it is throughout the year.

Firſt of all after the wound appeareth ſome bloud, but that ſymptom laſteth not long, for by and by followeth matter ſmelling very ſtrong, ſwelling tumor, and languiſhing pain, and all the parts of the body affected herewith become white, and when the hair falleth off, the patient ſeldom liveth above three or four days after. The cure hereof is by the ſame means that the poyſon of the Viper, the Ammodyte and Horned-ſerpent is cured withal. And particularly *Aetius* preſcribeth a ſpunge wet in warm Vinegar to be applyed to the wound, or elſe to lay the aſhes of chaffe with the earth upon which they are burned, to the place, and to anoint it with Butter and Honey, or elſe lay unto it Millet and Honey, likewiſe Bay-ſprigs, Oxymel, Purſlain, and in their dyet ſalt fiſh.

Aetius.

Ariſtotle writeth of a little Serpent, which by ſome are called a ſacred and holy Serpent, and he ſaith that all other Serpents do avoid it, and flie from it, becauſe whatſoever is bitten by it, preſently rotteth. It is in length (as he ſaith) a cubit, and it is rough all over, and therefore I take this Serpent to be a kinde of Sepedon. Alſo *Ariſtoxenus* ſaith, that he knew a man by touching this Serpent to die, and afterward that the garment which he wore at the time of the touching of the Serpent, did likewiſe rot away. And thus much for the Seps and Sepedon.

Of the SLOW-WORM.



THis Serpent was called in ancient time among the *Grecians Tythlops* and *Typhlynes*, and *Cophia*, becauſe of the dimneſſe of the ſight thereof, and the deafneſſe of the ears and hearing, and vulgarly at this day it is called in *Greece*, *Tephloti*, *Teſliti*, and *Tephlini*, and from hence the *Latines* have taken their word, *Cæcilia, quaſi cæcus Serpens*, a blinde Serpent, and it is alſo called *Cerula*, *Cæcula*, and *Ceriella*, as witneſſeth *Albertus*, becauſe the eyes thereof are none at all, or very ſmall. The *Italians* call it *Biſa orbala*; and the *Florentines*, *Lucignola*; the *Germans*, *Blyndenſclycher*; the *Helvetians*, *En vieux*, *al' annoilx*, and the people of *Narbon*, *Nadels*.

Scaliger.

It being moſt evident that it receiveth name from the blindeneſſe and deafneſſe thereof, for I have often proved, that it neither heareth nor ſeeth here in *England*, or at the moſt it ſeeth no better then a Mole. The teeth are faſtned in the mouth, like the teeth of a Chamæleon, the skin is very thick, and therefore when the skin is broken by a hard blow, the whole body doth alſo break and part aſunder. The colour is a pale blew, or sky-colour, with ſome blackiſh ſpots, intermixed at the ſides. There is ſome queſtion whether it hath one or two rims on the belly, for ſeeing they conceive their young ones in their womb, they have ſuch a belly by nature, as may be diſtended and ſtretched out accordingly as the young ones grow in their womb. It hath a ſmooth skin without all ſcales. The neather eye-lid covereth all the eye it hath, which is very ſmall: about the head they are more light coloured, then about the other parts of the body: The tongue is cloven, and the top thereof very black. They are in length about a ſpan, and as thick as a mans finger, except toward the tail

Oſwaldus.

which is more ſlender, and the female is more black then the male. The paſſage or place of excrements or conception is tranſverſe. If they be killed with the young in their belly, the little ones will inſtantly creep out at their dams mouth, and ſometimes (as witneſſeth *Bellonius*) in this little Serpent are found forty little young ones. They are in *Greece* and *England*, and come not abroad till *July*, and they go into the earth in *Auguſt*, and ſo abide abroad all harveſt, and they love to hide themſelves in Corn-fields under the ripe corn when it is cut down. It is harmleſſe except being provoked, yet many times when an Ox or a Cow lyeth down in the paſture, if it chance to lie upon one of theſe Slow-worms, it biteth the Beaſt, and if remedy be not had, there followeth mortality or death, for the poyſon thereof is very ſtrong. If it ſwell, it is good to prick the place with a brazen bodkin, and then apply unto it Fullers-earth and Vinegar. There is a Triacle made of the Slow-worm, which ſmelleth like *Aqua-vitæ*; with this ſome men are cured of the Plague. And thus much of this little Serpent.

Of the SNAKE.

THere is no reaſonable learned man that maketh queſtion, that *Anguis* in *Latine* is a general word for all kinde of Snakes and Serpents, and therefore when *Virgil* writeth of the fury *Alecto*, how ſhe caſt a Snake into the boſome of *Amata*, he firſt of all calleth it *Anguis*, a Snake, and preſently after *Coluber & Vipera*, a Serpent, as appeareth by theſe verſes following. *Æneid.* 7.

Huic dea cœruleis unum de crinibus anguem
Conjicit, inq; ſinum præcordia ad intima ſubdit:
Vipeream inſpirans animam, fit tortile collo
Aurum ingens Coluber.——

Which may be Engliſhed thus;

To her the Goddeſſe a Snake made of the Gorgons hair,
Which to the bottom of her breaſt and entrails made to ſlide,
Inſpiring to her a Vipers ſoul though ſhe were fair,
For chain of gold an Adder bout her neck did glide.

And this is the leſſe to be admired or doubted, ſeeing the very word *Anguis* ſeemeth to be derived of *Anguloſus*, winding or turning, for every kinde of Serpent may be folded or winded up together almoſt in every faſhion. Yet ſometimes, as the *Græcians* uſe *Ophis* for one kinde, as *Hæmorrhe* or *Hor* for Aſp, ſo alſo is the word *Anguis* uſed for one kinde, which we call a Snake, that is, a little Serpent living both in the water and on the earth. Howbeit, as we ſhall ſhew afterward, when it is in the water it is called *Hydrus* and *Natrix*, and when it is on the land, it is called *Cherſydrus*.

Among the ancient Pagans, Snakes were accounted the gods of the Woods, and this cauſed *Perſius* to write this verſe following;

Pingite duos angues, pueri, ſacer eſt locus.

That is, O ye children, draw the figure of two Snakes, for this place, (meaning the grove of Wood) is a holy place, and ſacred to the Gods. And in like ſort, the Snake in ancient time was ſacred to *Aeſculapius*, becauſe it was thought to be without venom, and to contain in it many excellent medicines or remedies againſt other evills, and alſo a kinde of divine power or help to drive away calamities, whereof I remember that I have read this ſtory in *Valerius Maximus*.

Rome (ſaith he) our City was for three years together continually vexed with Peſtilence, ſo as neither the mercy of God could be obtained for the releaſe of this evil, nor all wit, power, or induſtry of man put an end unto it. At laſt by the care and travail of the Prieſts, it was found in the writing and Books of *Sibyll*, that unleſſe they could obtain of the *Epidaurians* the holy Snake of *Æſculapius*, there ſhould be no end of that peſtilence.

For which cauſe there were Ambaſſadours ſent to the City of *Epidaurus*, to entreat at the hands of the Citizens and Prieſts, that holy Beaſt or Snake (as was prophanely ſuppoſed) and they attained the end of their journey, for the *Epidaurians* did kindely entreat them, and ſent the Snake of *Æſculapius*, and then (ſaith he) *Tam promptam Epidauriorum indulgentiam numen ipſius Dei ſubſecutum, verba mortalium cœleſti obſequio comprobavit*: That is, The very grace and power of God ſeconded that favourable indulgence of the *Epidaurians*, and with an heavenly obſequiouſneſſe allowed and performed the words and writings of mortal creatures, (meaning the *Sibyls* writings aforeſaid.) For that Snake (which the *Epidaurians* never ſee but they worſhip, with as great reverence as they would *Æſculapius* himſelf; for it never appeareth but for their exceeding great good and commodity) began to ſlide about the broadeſt ſtreets and nobleſt part of the City, gently looking upon every body, and licking the earth, and ſo continued three days, to the religious admiration of all the beholders, bearing an undoubted aſpect and alacrity, for the obtaining and aſpiring a more beautiful habitation: ſo at laſt it came to the Iſle neer *Rome*, called *Triremis*, whereinto in the ſight of all the Mariners it did aſcend and enter, and lodged it ſelf round in that place, where ſtandeth the houſe of *Quintus Ogulimus*: which ſtory is thus moſt excellently followed by *Ovid* in his *Metamorphoſ.*

The folk of Rome came hither all by heaps, both men and wives,
And eke the Nuns that keep the fire of Veſta as their lives
To meet the God, and welcome him with joyful noiſe: and as
The galley rowed up the ſtream, great ſtore of incenſe was
On altars burnt on both the banks, ſo that on either ſide,
The fuming of the Frankincenſe, the very air did hide,
And alſo ſlain in Sacrifice full many cattel dyed.
Anon he came to Rome, the head of all the world: and there
The Serpent lifting up himſelf began his head to bear
Right up along the maſt, upon the top whereof on hie,
He looked round about a meet abiding place to ſpie:
The Tyber doth divide it ſelf in twain, and doth embrace
A little Iſle Triremis, for ſo the people tearm the place,
From either ſide whereof, the banks are diſtant equal ſpace:
Apollo's Snake deſcending from the maſt, conveyed him thither,
And taking off his heavenly ſhape, as one repairing hither,
To bring our City healthfulneſſe, did end our ſorrows quite.

Thus ſaith *Ovid*: But the truth is, that the Poet did but faign this thing for the excitation and ſtirring up of the mindes of men to Religion and religious worſhip of the Heathen Gods; and therefore this Snake of *Epidaurus* was but a fiction, and therefore in the beginning of the Hiſtory he maketh it to be *Æſculapius* in the likeneſſe of a Snake, for in a viſion he ſheweth how that *Æſculapius* appeared to the *Roman* Ambaſſador, and told him that he would appear in that form, ſaying;

Pone metus, veniam, ſimulachraq; noſtra relinquam,
Hunc modo Serpentem, baculumq; neribus ambit,
Perſpice & uſq; nota, viſum ut cognoſcere poſſis;
Vertar in hunc, ſed major ero, tantuſq; videbor,
In quantum verti cœleſtia corpora poſſunt.

Which may be Engliſhed thus;

Fear not, for I will come and leave my ſhrine.
This Serpent which doth wreath with knots about this ſtaffe of mine,
Mark well and take good heed thereof, for into it tranſformed will I be,
But big too I will be, for I will ſeem of ſuch a ſize,
As wherein may celeſtial bodies turn ſuffice.

But all Poets are ſo addicted to faigning, that I my ſelf may alſo ſeem while I imitate them, to ſet down fables for truth: and if ever there were ſuch a Snake as this, it was Diabolical, and therefore in nature nothing to be concluded from it, and in that place of *Rome* called *Biremis* and *Triremis*, was *Æſculapius* worſhipped. And at this day in the Gardens called S. *Bartholomews-Gardens*, there is a Marbleſhip, on the ſide whereof is the figure of a creeping Snake, for the memory of this fact, as writeth *Gyraldus*.

But in the Emblems and documents of the ancient Heathen, it is certain that *Æſculapius*, and the Snake and the Dragon, did ſignifie health, and from hence it came to have the name of the Holy-ſnake, and alſo to be accounted full of medicine. The true occaſion in nature, was for that about *Phurnut.* the Countries of *Bononia* and *Padua*, they have a Snake which they call *Biſſe*, and *Biſſe-angue ſanca*, and about *Padua*, *Antza*, which they ſay is harmleſſe. And as well children as men, do often take up the ſame into their hands, with no more fear and dread then they would do a Coney, or any other tame and meek creature.

By the relation of *Pellinus*, it is in length five ſpans and five fingers, the head alſo compared with the body, is long, and in the neck thereof are two blanches, and betwixt them a hollow place, the back part whereof is attenuated into a thin and ſharp tail, and upon either chap they have many teeth, which are ſharp, and without poyſon; for when they bite, they do no more harm then fetch bloud only, and theſe men for oſtentation ſake wear about their necks; and women are much terrified by them in the hands of wanton young boys. The back of this Snake, (as writeth *Eraſtus*) is blackiſh, and the other parts green, like unto Leeks, yet mixed with ſome whiteneſſe, for by reaſon it feedeth upon herb, it beareth that colour. They are alſo carryed in mens boſoms, and with them they will make knots. For the ſame *Eraſtus* affirmeth, that he ſaw a Fryer knit one of them up together like a garter, but when he pulled it harder then the Snake could bear, it turned the head about and bit him by the hand, ſo as the bloud followed, yet there came no more harm, for it was cured without any medicine, and therefore is not venomous.

In the Mountain of *Mauritania* called *Zix*, the Snakes are ſo familiar with men, that they wait upon *Leo Afric.* them at dinner time like Cats and little Dogs, and they never offer any harm to any living thing, except they be firſt of all provoked. Among the *Bygerons* inhabiting the *Pyrenes*, there be Snakes four foot long, and as thick as a mans arm, which likewiſe live continually in the houſes, and not only come peaceably to their table, but alſo ſleep in their beds without any harm, in the night-time they hiſſe, but ſeldom in the day time, and pick up the crums which fall from their tables.

Olaus. Among the Northern people they have houſehold Snakes, as it were houſhold Gods, and they ſuffer them both to eat and to play with their Infants, lodging them in the Cradles with them, as if they were faithful Keepers about them, and if they harm any body at any time, they account it *Pium piaculum*, a very divine and happy miſchance. But after they had received the Chriſtian faith, they put away all theſe ſuperſtitions, and did no more foſter the Serpents brood, in deteſtation of the Devil, who beguiled our firſt Parents in the ſimilitude of a Serpent. Yet if it happen at any time that a houſe be burned, all the Snakes hide themſelves in their holes in the earth, and there in ſhort ſpace they ſo encreaſe, that when the people come to re-edifie, they can very hardly diſplant their number. *Plautus* in his *Amphitryo*, maketh mention of two named Snakes, which deſcended from the clowds in a ſhower; but this opinion grew from the fiction of the *Epidaurian* Snake, which only by the Poets is deſcribed with a mane and a combe, and therefore I will not expreſſe the Snakes to have a mane.

There is no cauſe why we ſhould think all Snakes to be without poyſon, for the Poet hath not warned us in vain, where he ſaith;

Frigidus, ô pueri fugite hinc, latet Anguis ſub herba:

Which may be Engliſhed thus;

Fly hence you boys as far as feet can bear,
Under this herb a Snake full cold doth lear.

For this cauſe we will leave the diſcourſe of the harmleſſe Snake, and come to thoſe which are no way inferior to any other Serpent, their quantity and ſpirit being conſidered, wherefore we are to conſider, that of Snakes which are venomous and hurtful, there are two kindes, one called the Water-ſnake, the other the Land-ſnake. The Water-ſnake is called in *Greek*, *Hydra*, *Hydros*, *Hydrales*, *Karouros*, and *Enhydris*, in *Latine*, *Natrix*, and *Lutrix*. *Munſter* calleth it in *Hebrew*, *Zepha*, and *Avicen* relateth certain barbarous names of it, as *Handrius*, *Andrius*, and *Abides*, and *Kedaſuderus*, *Echydrus*, and *Aſpiſtichon*. The *Germans* call it *Nater*, *Waſſer-nater*, and *Waſſer-ſchlange*: and they deſcribe it in the manner as it is found in their Countrey, which doth not very far differ from them of our Countrey here in *England*. It is (as they ſay) in thickneſſe like the arm of a man or childe, the belly thereof yellow, and of a golden colour, and the back blackiſh-green, and the very breath of it is ſo venomous, that if a man hold to it a rod newly cut off from the tree, it will ſo infect it, that upon it ſhall appear certain little bags of gall or poyſon. And the like effect it worketh upon a bright naked ſword, if it do but touch it with the tongue; for the poyſon runneth from one end to the other, as if it were quick, and leaveth behinde a line or ſcorched path, as if it had been burned in the fire.

And if this Serpent fortune to bite a man in the foot, then is the poyſon preſently diſperſed all over the body, for it hath a fiery quality, and therefore it continually aſcendeth, but when once it cometh to the heart, the man falleth down & dyeth. And therefore the meeteſt cure is to hang the party ſo wounded up by the heels, or elſe ſpeedily to cut off the member that is bitten. And that which is here ſaid of the Water-ſnake, doth alſo as properly belong the Land-ſnake, ſeeing there is no difference betwixt theſe, but that at certain times of the year they forſake the water when it draweth or falleth low, and ſo betake themſelves to the land.

They live in the water and in the earth, (but they lay their egges on the land in hedges or in dunghils) and eſpecially in thoſe waters which are moſt corrupt, as in pools where there is ſtore of Frogs, Leaches, and Newts, and but few fiſhes, as in the Lakes about *Puteoli*, and *Naples*, and in *England* all over the Fens, as *Ramſey*, *Holland*, *Ely*, and other ſuch like places, and when they ſwim they bear their breaſt above the water. They abound alſo in *Corcyra*, and about *Taracina* in *Italy*, and in the Lake *Nyclea*, and eſpecially in *Calabria*, as the Poet writeth:

Eſt etiam ille malus Calabris in ſaltibus Anguis,
Squammea convolvens ſublato pectore terga,
Atque notis longam maculoſus grandibus alvum,
Qui dum amnes ulli rumpuntur fontibus, & dum
Vere madent udo terræ ac pluvialibus auſtris,
Stagna colit, ripiſque habitans hic piſcibus atram
Improbus ingluviem, raniſque loquacibus explet.
Poſtquam exhauſta palus terræque ardore dehiſcunt,
Exilit in ſiccum & flammantia lumina torquens
Sævit agris, aſperque ſiti, atque exterritus æſtu.

Which may be thus Engliſhed;

That evil Snake in the Calabrian coaſts abides,
Rowling his ſcaly back by holding up the breaſt,
And with great ſpots upon large belly glides,
When as the Rivers ſtreams in Fountains all are ceaſt.
For whiles the moiſtened Spring with rain from South wind falls,
It haunts the Pools, and in the water all black it feeds,
In ravening wiſe both Fiſh and Frogs do fill his gall,
For why, when Summers drought enforce, then muſt it needs
Fly to dry land, rowling his flaming eye;
Rage in the fields to quench his thirſt full dry.

There be ſome Writers that affirm, that there is a certain ſtone in a Water-Snakes head, which it caſteth or vomiteth up when the skin thereof is fleyed from the body, and after it is ſo caſt up, it muſt be received into a piece of ſilk, the vertue whereof is to be proved after this manner; Fill a braſſe Caldron or Kettle full of water, and about the ſame veſſel ſo filled, binde this ſtone faſt, as it were to the handle or bayl thereof, and you ſhall finde that every day this ſtone ſo remaineth bound to the Kettle, that the water will decreaſe eighteen ounces. And this *Kiranides* affirmeth that he bound to a woman that had the Dropſie, and ſhe was thereby delivered from her diſeaſe; for every day he found that her belly did fall the quantity of four fingers, until it came to the natural bigneſſe, and then he took it off, for he ſaith, that if he had not then taken it off, it would alſo have dryed up the native humidity.

In like ſort, the vertue of this ſtone is applyed againſt the rheume in the legs, or any flux of the eyes, ears or head, but the uſe of it muſt not exceed the quantity of three hours at a time. It alſo driveth out of the body all venomous Worms, and is a ſpecial remedy againſt their biting and ſtinging. This ſtone is alſo called *Serpentinus* and *Draconites*, but it is queſtionable whether it be generated in the head of the Snake, or by their vaporous breath, concurring together in the Spring or Winter ſeaſon. Some of theſe ſtones are ſaid to be of a blewiſh green colour, and the form thereof pyramidal: *Albertus* ſaith, he hath ſeen one of them that was black, and not lightſome, only about the edges of it there was ſome paleneſſe apparent, and in the ſuperficies or upper part thereof, there was (as he writeth) a beautiful picture of a Snakes proportion, and the vertue thereof did put to flight venomous Beaſts, and alſo cure their harmful poyſons.

Such like things we have already ſhewed to be in the ſtone which the Toad is ſaid to have, but this ſtone is more likely to be the *Ophites*, for in the Caſtle of *Tangra*, once the ſeat or habitation of *Charles* the fourth, there is a Chappel wherein are many precious ſtones, wrought in the walls and doors, and among divers other theſe *Ophites*. But whereas there is a pyramidal form attributed to theſe ſtones, I take it therefore that it is the ſame which *Pliny* calleth *Gloſſapetra*, for in ſhew it reſembleth the tongue of a Snake, and the tongue of a Snake being great or broad at the root, and ſmaller toward the end or tip thereof, is rightly ſaid to be of a pyramidal form: and among the *Germans* it is called by a peculiar word, *Naterzungen*, that is, Snakes-tongue.

And ſuch a kinde of ſtone as this Snakes-tongue, (as *Agricola* and ſome other Authors write) is found in a certain earth neer *Linuburgh* in *Saxony*. And *Conradus Geſner* affirmeth, that there is a certain Town in *Germany* called *Aenipon*, where there is one of theſe ſtones half a cubit long, and therefore it ſeemeth that they are not all generated in Serpents or Snakes heads. Among the *French*-men this ſtone is called *Sugne*, becauſe there be Serpents ſeen in it twyning their tails together, or folding them one within another.

There was wont to be a ſuperſtitious way to extract or expreſſe this ſtone from out of the Snake, which was done in this manner; Firſt, when they had taken the Snake alive, they did preſently hang her up by the tail, then juſt underneath her they did make a ſuffumigation of Laurel, and ſo did conjure the Snake, ſaying; *Per Dominum qui te creavit, lapidem tuum quem in capite tenes te inſtanter ejicere jubeo*: This kinde of enchanting charm, I hold not worthy to be tranſlated, and yet let me not be blamed for the relation of it, ſeeing it is pertinent to this ſtory to know all the good and evill about theſe Serpents. And therefore, not to expreſſe the ſame at all, might argue in me, either ignorance, or ſilly preciſeneſſe: and again on the other ſide, to make it vulgar, might bring me into ſuſpicion of ſome approbation: therefore let the Reader know it from me, but underſtand it from ſome other.

And for mine own opinion, I account no better of theſe Snake-ſtones then I do of the Toad-ſtones, concerning which I have already given my opinion in another place. And therefore what here is related of this ſtone, let it be examined, and then be either received or refuſed.

Many, and almoſt infinite are the Epithets which are given to Snakes, whereby their nature is expreſſed, as *Aliger anguis*, the winged Snake, black, fierce, blew, greedy, wilde, cold, Gorgonean, wreathen, ſliding, deadly, lightſome, ſpotted, martial, threatning, purple, wholeſome, ſcaly, terrible, winding, grim, ſwelling, fearful, venomous, green, infolded or implicit, horrible, hiſſing, Marſian, Maurian, peſtilent, retorted, and ſuch other like, as it hath pleaſed the ſeveral Authors writing hereof to aſcribe and attribute unto it. Which we will not proſecute with any explication, but only leave them to the Readers pleaſure, being only content to nominate them.

There is great account or reckoning made of their egges, which they lay in the Summer time, for firſt of all they are ſo glewed and conjoyned together, partly with the ſpettle and moiſtneſſe which proceedeth from their mouths, and partly with the ſpume and frouth of their own body, that a man ſeeing their heaps, would judge them to be coupled together by ſome artificial deviſe. Theſe egges thus knotted together in bunches, the *Latines* call *Anguinum*. The *Druides* or ancient Wiſards of *England* and *Scotland*, have delivered, that if the Snake hiſſe, theſe will of their own accord fly up into the air, and then if ſome wiſe man take them by prevention, before they touch the ground again, the Snakes will follow him as faſt as any Horſe, until he come to ſome River, into the which they dare not enter.

And the folly of theſe alſo proceeded ſo far, that they were not aſhamed to report, that if one of theſe *Anguines* or bunches of egges, were tyed to a piece of gold, it would ſwim in a River againſt the ſtream. Theſe they commended unto Princes and Great men to carry about with them in the time of wars and other contentions, and that therefore when a *Roman* Knight of *Volontii*, was found by *Claudius* to carry one of theſe about him, he was by the Emperors commandment put to death.

But to leave vanities, we will proſecute the true and natural deſcription of their egges in this manner; They are round and ſoft, in colour white, cleaving (as we have already ſaid) together in great bunches, forty, or fifty, or a hundred in a cluſter, without, they are covered with a skin or cruſt, much harder and whiter then the ſubſtance contained within it, which is like matter, or the rotten Egges of a Hen or Duck, in quantity as big as Bullies, Plums, and ſeldom bigger, being moſt commonly very round and orbicular. Yet *Geſner* reporteth, that he had one ſent him of the proportion of a Lentil, and as great as the fiſt of a Man, and within every egge appear certain ſmall things, like the tails of Serpents, or Leaches, being in number ten, five greater and five ſmaller, one folded or lapped within another. And theſe have alſo little puſtules upon the skin or cruſts, whereof one doth not touch the other.

Out of theſe Egges come the young ones, but I cannot affirm what great affection the old ones bear unto them, or that when many Snakes lay their egges together every one in that multitude hath skill to diſcern her own Egges from the other. For I have been with other my Colleagues or School-fellows when I was young, at the deſtruction of many thouſands of them, and never perceived that the old Snake did with any extraordinary affection fight for their egges, but rather forſook them, and ſuffered us to do with them what we pleaſed: which ſometimes we brake, ſometimes ſcattered abroad upon the dunghill out of which we digged them, and ſometimes we caſt them into the next River we came at, but never ſaw any of them recollected again to their former place by the Snakes, although the place were very full of them, and therefore I conclude for mine own experience, that Snakes cannot be perceived to bear any exceeding love in nature to their egges or young ones.

Their ordinary food for the moſt part, is earth, Frogs, Worms, Toads, and eſpecially Paddocks, or crook-backed Frogs, Newts, and ſmall fiſhes. The Foxes and Snakes which are about the River *Nilus* are at continual variance, and beſides, the Harts are by nature common enemies to all Serpents.

They are not in venom inferiour to other Serpents, for they infect the waters neer to houſes, and are many times the cauſes of diſeaſes and death, whereof the Phyſitians cannot diſcern. When they bite or ſting, there followeth extream pain, inflamation, greeneſſe or blackneſſe of the wound, dizzineſſe in the head, and death within three days. Whereof dyed *Phyloctetes*, General of the Fleet of *Greece*, in *Lemnos*, *Dædalus* and *Menalippus*.

The cure of this evil muſt be by Origan ſtamped and laid to the ſore with Lie and Oyl, or aſhes of the root of an Oak with Pitch, or Barley-meal mixed with Honey and Water, and ſod at the fire. And in drink take wilde Noſewort, Daffadil flowers, and Fennel-ſeed in Wine. And it is alſo ſaid, that a man carrying about him the Liver of a Snake, ſhall never be bitten by any of that kinde. And this Liver is alſo preſcribed againſt the Stone in the Bladder, being drunk in ſtrong drink. And thus much for this Serpent.

Of Spiders and their ſeveral ſorts.

And firſt of thoſe that are commonly called PHALANGIES.

Doctor *Bonhams* diſcourſe of Spiders.

THis kinde of venomous creature, of the *Latines* is called *Araneus*, or *Aranea*, and of *Cicero* in his Books *De natura Deorum*, *Araneola*, and *Araneolus*. Of the *Grecians*, *Arachnes* or *Arachne*. *Heſichius* termeth it *Stibe*; the *Hebrews* name it *Acobitha*, *Acbar*, *Acabith*, and *Semamith*; the *Arabians*, *Sibth*, and *Phibib*; in the *German* tongue *Spin*, and *Banker*; in *Engliſh*, *Attercop*, *Spider*, and *Spinner*; of the *Brabanders*, *Spinne*; in *France*, *Araigne*; in *Italy*, *Ragno*, and *Ragna*; in *Spain*, *Arana* or *Taranna*; of the *Illyrians* it is called *Spawanck*; of the *Polonians*, *Pajak*, and *Pajeczino*; of the *Hungarians*, *Pox*; of the *Barbarians*, *Koatan*, and *Kerſenat*. *Iſidore* in his twelfth Book ſaith, that the Spider is termed *Araneus*; becauſe ſhe is both bred and fed in the air: but herein he hath fallen into a double error. For if they lived only in the air, and by the air, as he would ſeem to enforce, I marvel to what end and purpoſe they ſhould ſo buſily make and pitch their nets for the enſnaring of flies? And if they receive their firſt being and breeding in the air, I cannot ſee to what purpoſe they do either lay egges, or exclude ſmall little Worms after their coupling together.

But we will eaſily pardon this preſumptuous Etymologiſt,. and diver deep into Interpretations, with others alſo of the ſame humor, whoſe ordinary cuſtom thus to to dally and play with words, is with them eſteemed as good as Statute-law, for the moſt part. There are many ſorts of Spiders, and all of them have three joynts a piece in their legs.

Eſtq; caput minimum toto quoq; corpore parvum eſt,
In latere exiles digiti pro crutibus hærent,
Latera venter habet, de quo tamen illa remittet
Stamina.———

Which may be Engliſhed thus;

Little is their head, likewiſe the body ſmall,
All over is, and fingers thin upon the ſides,
In ſtead of legs, out of the bellies flanck do fall:
Yet out of which ſhe makes her web to glide.

All Spiders are venomous, but yet ſome more, and ſome leſſe. Of Spiders that neither do nor can do much harm, ſome of them are tame, familiar, and domeſtical, and theſe be commonly the greateſt among the whole pack of them. Others again be meer wilde, living without the houſe abroad in the open air, which by reaſon of their ravenous gut, and greedy devouring maw, have purchaſed to themſelves the names of Wolfs, and hunting Spiders. The leaſt ſort of theſe weave no webs at all, but the greater beginneth to make a ſmall and harſh web about hedges nigh unto the earth, ſpreading and ſetting the ſame abroad in the very entry, and in void places neer their lurking holes, their deceitful nets, obſerving very diligently the ſtirring of their deceitful webs, and perceiving them moving, though never ſo lightly, ſhe maketh no ſtay, but with all ſpeed poſſible haſtneth her ſelf to the place, and whatſoever ſhe there findeth, ſhe ſeizeth upon as her lawful prize.

The moſt dangerous and hurtful Spiders are called *Phalangia*, if they bite any one, (for they never ſtrike) their poyſon is by experience found to be ſo perillous, as that there will a notable great ſwelling immediately follow thereupon. Theſe kindes of venomous Spiders, are of two ſundry ſorts, for ſome of them are leſſer, and ſome greater. The leſſer ſort are very unlike one to another, and of changeable colours, violent, libidinous, hot, ſtirring, ſharp-topped, holding on their pace and way, as it were in jumping manner or leaping-wiſe: and theſe I finde to be called by *Ariſtotle* in his 11. Book *De Animal. Pſullas*, or *Pulices*, and *Pitheci* or *Simii*. Of ſome they are called *Oribates*, becauſe they are uſually found among Trees that grow upon Mountains. They are alſo called *Hypodromi*, becauſe they live under the leaves.

The *Phalangium* or *Phalanx* Spider, is unknown in *Italy* (as *Pliny* ſaith) and there are found many ſorts of them. One ſort of them is very like unto a great Piſmire, but much bigger, having alſo a red head, but all other parts are black, ſpeckled, and garniſhed with many white ſpots running all alongſt their bodies. This formicarian or Piſmire-like *Phalanx*, of *Aetius* is deſcribed to have a body much reſembling ſoot in colour, his neck aſh-coloured, and his back gliſtering, as it were with many ſtars on it. *Nicander* calleth it *Agroſtes*, and *Aetius*, *Lucos*. The *Latines* tearm it *Venator*, that is, the Hunter. This ſtingeth but weakly, without any pain at all, but yet it is ſomewhat venomous, though not very much. This kinde of *Phalanx* is often found among Spiders webs, where (after the faſhion of ſome Hunters) they beguile and intrap Flies, Gnats, and Bees, Gad-flies and Waſps. And (if *Lonicerus* write no more then may be warranted for truth,) thoſe great Horſe-flies or Ox-flies and Brimſees, that in Summer ſeaſon vex Cattle, and whatſoever they lay their clowtches on, that they hold faſt and deſtroy; and thus live they by taking of booties and preys.

There is no man (I think) ſo ill adviſed, that will confeſſe this to be the ſame creature which *Ariſtotle* calleth *Pulex*, for the body of that by his deſcription is broad, rowling, round, and the parts about the neck have certain lines or cuts: and beſides, about the mouth there appear and ſeem to bud forth three eminencies or ſtandings out.

There is another ſort of *Phalangium*, called by *Nicander*, *Rox*, of *Aetius*, *Ragion*, of *Ælianus*, *Rhax*, (becauſe it is ſo like the kernel or ſtone that is found in Grapes,) and this kinde of Spider is of a round figure, black in colour, the body gliſtering, and round as a ball, with very ſhort ſtumped feet, yet nevertheleſſe of a very ſwift pace. They have teeth, and their mouth is nigh their belly, and when they ſtir, they gather up their feet very round. In the deſcription of this Spider, *Aetius*, *Ælianus* and *Pliny* do wholly conſent and agree in opinion, and yet *Ælianus* was a little beſides the way, when he ſet down *podas macrous*, for *microus*, long feet for ſhort feet; and that this kinde of Spider was only found in *Lybia*, and not elſewhere.

That kinde of Spider termed of *Pliny*, *Aſterion*, ſeemeth to be all one with the former, ſaving that this is more known by his little white ſpots made ſtar-wiſe, and the gliſtering ſtripes or rays wherewith his body ſeemeth to be over-ſprinckled. *Pliny* only mentioneth this, as if *Ariſtotle*, *Aetius*, *Galen* and *Avicen*, had never heard of it.

The moſt venomous and hurtful of all theſe, is that which *Nicander* calleth *Pedeoros*, of colour azure, or bright blew, which hath long, high, and lofty feet on both ſides of the body. The Scholiaſt addeth *Daſu* and *Meteoron*, that is, *lanuginoſum* and *ſublime*, ſoft like cotten or Wooll, and lofty or high, and not *ſublime lanuginoſum*, as *Lonicerus* tranſlateth it. *Pliny* ſaith, that this Spider hath a black moſſineſſe or ſoft down, although it will ſcarſe ſink into my head, that any Spider that is of an azure or blew colour, hath any ſoft hairs, or woolly ſubſtance of a black colour.

There is another kinde of *Phalangium* Spider called of *Nicander*, *Dyſderi*, which name is neither to be found in *Ariſtotle*, *Pliny*, nor *Aetius*, nor yet in any other ancient Author that ever I could read, which ſome others call, and that very properly, *Sphekion*, *quaſi veſparium*, becauſe it is ſo like a red Waſp, saving that it lacketh wings, and this Waſp-like Spider is of a paſſing deep red colour, and counted far worſer then the blew Spider, although the azure or blew Spider only by touching doth infect with poyſon, and will break any Cryſtal glaſſe, if it run over it though never ſo ſpeedily, or do but touch it in glancing wiſe, as *Scaliger* beareth witneſſe.

There are two ſorts of *Phalangie* Spiders called *Tetragnatha*, and the worſer is that which hath half of his head divided with one white line, and another white line running croſſe-wiſe. There is another of theſe not ſo hurtful as the former, and this is of an aſh-colour, and very white in the hinder-parts. There is alſo a Spider coloured as this is, that maketh her web by walls ſides for the taking of Flies, which as ſome affirm, hath little or no venom in it at all. *Aetius* ſaith, that the *Tetragnathus* is a kinde of *Phalangium*, having a broad and whitiſh body, rough footed, with two ſwelling or little bunches ſtanding out in the head, the one ſomewhat broad, the other ſtanding right forth, ſo that at the firſt, one would imagine that it had two mouths, and four jaws.

Aelianus in his xvij. Book, chap. 40. ſaith, that there is great ſtore of theſe to be found in *India* about the River *Arrhata*, where their multitude is ſo dangerous and miſchievous, as that they bring death and deſtruction to the Citizens and people bordering nigh thoſe places. And *Strabo* the Geographer, in his xvj. Book telleth us, that beyond the *Lybians* and on the Weſtern ſide of *Africk*, there is a Countrey left deſtitute of Inhabitants, having goodly large fields and paſtures, being unhabitable by reaſon of the multitude of Scorpions there bred, and of the Spiders called *Tetragnathoi*.

There is to be found in Harveſt-time amongſt Peaſe, Beans, and other ſorts of pulſe, (when they are gathered and reaped by the hand) certain ſmall Spiders called *Kantharideſſi Eikela*, in ſhew like unto Cantharides or Spaniſh-flies, of a very red and fiery colour, ſuch as we Engliſhmen call Twinges, by eating or licking up of which, both Oxen and other Beaſts do many times die. There is another kinde of *Phalangium* that breedeth altogether in the pulſe, called *Ervum*, which is like unto Tares, and likewiſe in the Peach tree, which *Nicander* and *Aetius* tearm *Granocalaptes*, and *Dioſcorides* nameth it *Kephalokrouſtes*, becauſe it is ſo preſumptuous bold as to ſtrike at the hands of travellers by the High-ways, when as either it paſſeth down in gliding manner by her fine thread, or that ſhe tumbleth down without any ſtay of thread or other ſupport. It is a ſmall creature to ſee to, keeping on the pace very fearfully, nodding with the head, reeling, and as it were ſtaggering, being great and heavy in the belly, ſomewhat long of body, and of a greeniſh colour. It carryeth a ſting in the top of her neck, and ſtriking at any, ſhe commonly aimeth at thoſe parts which are about the head. And as *Actius* ſaith, *En tois phullois tes per ſeias trephetеis, kai ta ptera echei homoia tais en tais kuſtais pſuchais*: That is, they are nouriſhed in Peach tree-leaves, and they have wings like unto Butter-flies that are found amongſt Barley.

Whereupon the Scholiaſt ſeemeth to inſinuate to us, that this kinde of Spider is winged, which no man (as I judge) hath hitherto obſerved. *Ponzettus* and *Ardoynus* do take the *Cranocalaptes* to be a *Tarantula*, but herein they are both miſtaken, as was *Rabbi Moſes* before them. The Spider called *Sclerocephalus*, in form differeth but little from the former. It hath a head as hard as a ſtone, and the lineaments and proportion of the body do much reſemble thoſe ſmall creatures which are ſeen about Lamps lights, or candles in the night time.

There cometh in the laſt place to be deſcribed, the *Phalangie* Spider of *Apulia*, commonly known by the name of *Tarantula*, taking his denomination from the Countrey of *Tarentum*, where there are found great ſtore and plenty of them. *Ferdinandus Ponzettus* imagineth, that it hath but only ſix feet, and *Ardoynus* is of the ſame judgement, and further faigneth, that it hath a ſtretched out tail. *Raſis* calleth a *Tarantula*, by the name of *Sypta*, *Albucaſis*, *Alſari*, *Rabbi Moſes*, *Aggonſarpa*, *Avicen*, *Sebigi*, Doctor *Gilbert*, *Taranta*, therein following *Ardoynus*, which maketh two ſorts of *Tarantulaes*, the one of a brown, the other of a yellow colour and cleer ſhining, ſuch as are to be found in *Egypt*. *Pliny* (as you read a little before) ſaid that the *Phalangium* was not known in *Italy*, but in theſe days they are found throughout all the Southern parts of that Countrey, eſpecially nigh the Sea-ſhore, as both Harveſt-men and Hunters can well teſtifie by their own wofull experience.

Ponzettus was much deceived, when in his third Book and xv. chapter entreating of the Scorpion, he expreſly affirmeth the *Phalanx* to be ſuch a venomous flye. It is a vengible and cruel creature (as *Alexander ab Alexandro* ſaith) and to be touched, horrible, venomous and peſtilent: and moſt eſpecially their biting is exceeding venomous in the parching heat of the Summer, but at other ſeaſons of the year not ſo great. There be many ſorts of Spiders found in very cold Countries, but no *Phalangies* at all; or if there be any, yet have they very little poyſon in them, and nothing comparable to them of hotter Climates.

All the ſorts of *Phalangies* do lay their Egges in a net or web, (which for the purpoſe they make very ſtrong and thick.) and ſit upon them in very great number, and when their brood is increaſed to ſome growth, they kill their dam by their hard embracements, and fling her clean away; and further, caſting off all fatherly affection, they many times ſerve the male with the ſame ſauce, if they can come handſomely by him, for he is a helper to the female in ſitting over their egges. They hatch at one time three hundred, as hath been ſeen by the teſtimony of *Bellonius*, in his Book *Singul. obſervat.* chap. 68. The *Tatantulaes* lie commonly lurking in holes, chinks, and chaps of the earth, and with their teeth they bite and wound at unawares, incircumſpect Mowers, and harveſt-folks, and raſh Huntſmen, who think of no ſuch matter: and therefore they that are acquainted with their ſleights, do wear Boots and Gloves on their hands and legs, for their further defence, ſo often as they go forth either to hawking, hunting, or to reaping and mowing, or any ſuch like labour in the common fields.

All theſe Spiders are venomous even naturally, for that is ſo ſetled and deeply faſtened in them, as it can by no means be eradicated or taken away. Neither ſuck they this venom and poyſonous quality from plants or herbs, as many men think, which in very truth they never ſo much as taſt of, neither do they purchaſe this venomous complexion and nature from any naughty, hurtful, and malignant quality that is in their meat, by reaſon their chief food and ſuſtenance is Flyes, Gnats, and Bees; and without queſtion they can ſuck and draw no ſuch cacochymical juyce from their bodies. If the Formicarian (which I call the Piſmire-like) *Phalangie* do bite any man, there will preſently follow moſt fearful accidents: for it bringeth an exceeding great tumor upon the wounded place, the knees are looſe and feeble, trembling of the heart, and decay of ſtrength do ſucceed, and ſometimes it induceth death it ſelf.

The ſignes to know when one is bitten of any Phalaangie and the effects of the ſame.

Nicander ſaith, that they who are bitten of this kinde of Spider, do fall into ſuch a profound ſleep, as that they will never be awaked, for they have and ſuffer that which Hiſtories report of *Cleopatra* Queen of *Egypt*, who to eſcape the fingers of *Auguſtus*, becauſe ſhe would not be brought to *Rome* in triumph, cauſed two Serpents called Aſps, to be ſet to her breaſts, which did ſting her to death, whoſe nature is to give a heavineſſe and ſleep, without any ſhrinking or mark in the skin, only putting forth a gentle ſweat out of the face, as if one were in a trance and hard to be awaked.

The Spider called *Agroſtis*, maketh but a ſmall wound with her biting, and in a manner without any pain at all, and no ways deadly, unleſſe it be but ſlightly regarded, or that no care be had for the cure in the beginning. The *Phalangie* that is called *Duſderus*, which is faſhioned like a Waſp, if he hurt any one by his biting, it cauſeth the ſame accidents that the azure or blewiſh-coloured Spider doth, but yet not altogether ſo terrible and vehement. And beſides, the Duſder-ſpider with her poyſon, bringeth a waſting and pining away of the whole body by degrees, without any great ſenſe.

If a man be poyſoned with that kinde of Spider which is found among pulſe, and is (as I ſaid before) like unto *Spaniſh* Flies, there will preſently ariſe certain puſtules, riſings or ſwellings, much like unto bliſters, as if one were ſcalded with hot water, in which ſwellings there will commonly be much yellowiſh matter; beſides, the patient is much diſquieted, vexed, and too much out of order; the eyes ſeem to be writhed, deformed, looking aſquint on the one ſide, the tongue faltereth and ſtammereth, not being able to ſound their words, or to pronounce directly: their talk is idle, they wander and rove up and down in great perplexity; their heart being tormented, toſſed and turmoiled with an extraordinary kind of furious paſſion.

The Spider that is found in the pulſe, called *Ervum*, which is very like to Tares or Vetches, produceth by his venom the ſame evil effects that the former doth; and if Horſes or other beaſts do by chance devour any of them, their bodies are ſo inflamed by means of their unquenchable thirſtineſſe the poyſon cauſeth, that many times they burſt aſunder in the midſt. If the *Cranocalaptes* wound any man (as *Pliny* aſſureth us) it is not long before death it ſelf do ſucceed. And yet *Nicander* and *Aetius* hold the contrary, and would make us believe that his hurt is ſoon remedyed, without any great ado: yet herein they do conſent, that if any be hurt with any Spider of this kinde, there will follow a great pain of the head, coldneſſe, ſwimming and giddineſſe of the brain, much diſquietneſſe of the whole body, and pricking pains of the ſtomach. But notwithſtanding all this (ſaith *Nicander*,) the patient is ſoon remedied, and all theſe above rehearſed paſſions quickly appeaſed and brought to an end.

The *Sclerocephalus*, as it much reſembleth the *Cranocalaptes* Spider in form and proportion, ſo in his force, effect and violence they are much alike, cauſing the ſame ſymptomes, accidents and paſſions as the former. The wound that the Spider called *Ragion* inflicteth, is very ſmall, ſo that a man can hardly diſcern it with his eyes; but yet if one be hurt therewith, the lower part of the eyes, and the eye-lids wax very red. Beſides, the patient feeleth a ſhivering cold or chilneſſe in his loins, with weakneſſe and feebleneſſe in the knees, yea the whole body is taken with a great quaking cold, and the ſinews by means of the violence and ranckneſſe of the poyſon, ſuffer a Convulſion. The parts ſerving to generation, are made ſo impotent and weak, as that they are not able to retain the ſeed, nor yet to contain their urine, which they void forth much like in colour to a Spiders-web, and they feel the like pain as they do which are ſtung with Scorpions.

Of the the wounding of the Star-ſpider feebleneſſe and weakneſſe followeth, ſo that one cannot ſtand upright, the knees buckle, ſleep and ſhaking drouſineſſe ſeizeth upon the hurt parts: and yet the worſt of all is the blewiſh Spider, for this bringeth dimneſſe of the eye-ſight, and vomiting, much like unto Spiders and cobwebs in colour, fainting and ſwounding, weakneſſe of the knees, heavy ſleeps, and death it ſelf.

If a man be wounded of the *Tetragnathian* Spider, the place waxeth whitiſh, with an intolerable, vehement, and continual pain in it, and the member it ſelf withereth and pineth away even to the very joints. Finally, the whole body by receiving any wholeſome ſuſtenance, is nothing at all relieved thereby, yea and after a man hath recovered his health, yet is he nevertheleſſe diſquieted by much watching for a long time after, (as *Aetius* writeth.) *Nicander* in expreſſe words confeſſeth, that the Aſh-coloured *Tetragnath*, doth not by his biting infuſe any venom or like hurt. If the ſpeckled *Phalangie* of *Apulia*, which is uſually known by the name of *Tarantula*, do bite any one, there will follow divers and contrary accidents and ſymptomes, according to the various conſtitution, different complexion, and diſpoſition of the party wounded. For after they are hurt by the *Tarantula*, you ſhall ſee ſome of them laugh ; others contrariwiſe to weep, ſome will clatter out of meaſure, ſo that you ſhall never get them to hold their tongues, and otherſome again you ſhall obſerve to be as mute as fiſhes : this man ſleepeth continually, and another cannot be brought to any reſt at all, but runneth up and down, raging and raving like a mad man.

There be ſome that imagine themſelves to be ſome great Lords or Kings, and that their authority, Empire and ſignory, extendeth it ſelf far and wide ; and for that cauſe they will ſeem to charge others by vertue of their abſolute and Kingly authority, and as they tender their favours, and will avoid their diſpleaſure, to ſee this or that buſineſſe diſpatched ; and with others again the contrary conceit ſo much prevaileth, as by a ſtrong imagination they cannot be otherwiſe diſſwaded but that they are taken priſoners, that they lie in ſome deep dungeon or priſon, with bolts and ſhakels about their feet, ſo many as their legs can bear, or that their neck and feet lie continually in the ſtocks. You ſhall ſee ſome of them to be cheerful, quick of ſpirit, and lively, with dancing, ſwinging and ſhaking themſelves. With others again you ſhall have nothing but ſadneſſe, and heavineſſe of minde, brown-ſtudies, unaptneſſe to do any thing, as if one were aſtonyed, ſo that nothing but numneſſe, and dulneſſe of moving and feeling, ſeemeth to pinch them, being to ſee to very ſenſeleſſe.

In concluſion, as drunkenneſſe to ſundry perſons is not all one, but much different, according to the diverſity of complexions, and natural conſtitution of the brain : ſo neither is the madneſſe or frenzy fits of theſe perſons all one that be infected with a *Tarantulaes* poyſon : but ſome of them are fearful, ſilent, ever trembling and quaking : and others again are more fool-hardy, raſh, preſumptuous clamorous, full of noiſe, doing nothing elſe but call and cry out ; and ſome few ſeem to be very grave, conſtant and ſtedfaſt, that will not alter their purpoſes for a world of wealth. But let them be affected either with this or that paſſion, yet this is common to them all, as well to one as to another, that they are generally delighted with muſical Inſtruments, and at their ſound or noiſe will ſo trip it on the toes dancer-like, applying both their mindes and bodies to dancing and friſking up and down, that during the time of any muſical harmony, they will never leave moving their members and limbs, like a Jackanapes that cannot ſtand ſtill. And which is more ſtrange, they will uſe theſe motions and geſtures when they are ready to depart this life, through the lingering ſtay and vehement cruelty of the poyſons operation : and yet for all this, though they be ſo neer unto death, yet if they hear any muſick, they come again to themſelves, newly gathering their ſpirits and ſtrength, and with a greater alacrity, promptneſſe of minde and cheer, they foot it as frolickly as ever they did or could have done.

And thus doing and dancing both day and night, without any notorious intermiſſion, and by their continued ſweating, the poyſon being diſperſed into the pores of the skin, and evaporated by inſenſible tranſpiration or breathing out, are at length by this means recovered to their former health and ſtate of body. And if the Pipers and Fidlers ceaſe playing with their muſick, though never ſo little a while, before the matter of the poyſon be in ſome part exhauſted, then will they make a recidivation and returning to their former paſſions and griefs, wirh which they were at firſt tormented and diſquieted. But yet this is the moſt ſtrange, deſerving the greateſt admiration of all, that all thoſe perſons which are bitten or wounded by any *Tarantula*, they will dance ſo well, with ſuch good grace and meaſure, and ſing ſo ſweetly, and withall deſcant it ſo finely and tunably, as though they had ſpent all their life time in ſome dancing and ſinging-ſchool.

Neverthele ſſe, *Cardan*, contrary to all authority and experience, calleth in doubt and queſtion this point, and at laſt concludeth that they cannot be reſtored to health again by muſick. Wherein he doth marvelouſly repugn and contrary, both *Fœlix*, *Platerus*, *Theodorus*, *Zuingerus*, *Andreas*, *Matthiolus*, *Bellunenſis*, *Ponzettus*, *Paracelſus*, and many other famous learned men. Truly, a bare contradiction againſt ſo great authorities, is far unworthy and unbeſeeming a man any thing (though never ſo little) ſeen or exerciſed in Philoſophy : much more ſo great a Philoſopher and Phyſitian as *Cardan* was. Yet ſure I am of the opinion, that *Cardan* did not erre in Philoſophy through ignorance, but having a deſire to appear more learned, he did ever bend himſelf to impugn that, which he knew the ſoundeſt and beſt part of men did hold and maintain. But this little which I have here ſpoken, ſhall ſerve ſufficiently for the diſcuſſing of *Cardans* opinion.

And ſurely, if the harmonical ſound and melody of warlike drums and trumpets, hath cured furious, mad, and enraged Horſes, and mitigated the pain of their legs and hips, as *Aſclepiades* hath written, I ſee nothing to the contrary, but that it may help thoſe perſons that are wounded of any *Tarantula*. The Pope with his Poll-ſhorn generation, have muſtered divers of the Saints together, and have aſſigned and appointed to each his ſundry charge and ſeveral office apart, for the cure of ſundry diſeaſes. As for example, S. *Anthony* can heal the burning ; S. *Rooh* the Peſtilence, notwithſtanding that S. *Sebaſtian* hath ſome skill in it alſo. Saint *Coſmus* and *Damian* are good for all biles and ſwelling diſeaſes. S. *Job* for the pocks. S. *Appolin* for the tooth-ach. S. *Petronella* can drive away all manner of Agues. And S. *Vitus* or *Vitulus* (we may well call him S. Calf) that in times paſt excelled in the muſical Art, doth direct all Dancers, or ſuch as will leap or vault : So that if this Saint be invocated and pacified with muſical harmony and melodious ſound of inſtruments, he will be an excellent Apothecary and Doctor for the curation of any that are wounded with a *Tarantula*. Superſtitious people fondly imputing that to the Patron and Proctor ſometimes of Muſick, which ought rather to be attributed to Muſick it ſelf, and motion of the body.

Dioſcorides concerning the common bitings of hurtful Spiders or *Phalangies*, writeth thus: The accidents (ſaith he) that do accompany the bitings of Spiders, are theſe that follow: The wounded place waxeth red, yet doth it not ſwell nor grow very hot, but it is ſomewhat moiſt. If the body become cold, there will follow trembling and ſhaking, the groin and hams do much ſtrout out, and are exceeding diſtended; there is great provocation to make water, and ſtriving to exonerate nature, they ſweat with mnch difficulty, labour and pain. Beſides, the hurt perſons are all of a cold ſweat, and tears diſtil from their eyes that they grow dim-ſighted therewith. *Aetius* further addeth, that they can take no reſt or ſleep, ſometimes they have erection of the yard, and the head itcheth, other whiles the eyes and calfs of the legs grow hollow and lank, the belly is ſtretched by out means of winde, the whole body is puffed up, but in eſpecial the face, they make a maſſeling with their mouth, and ſtammer, ſo that they cannot diſtinctly be underſtood.

Sometimes they can hardly void urine, they have great pain in the lower parts, the urine that they make is wateriſh, and as it were full of Spiders webs, the part affected hath a great pricking and ſwelling, which *Dioſcorides* (as you read a little before) will by no means yeeld to, and it is a little red. Thus far *Aetius* from whom *Paulus Aegineta*, *Actuarius*, *Ardoynus* and ſome others differ but a little. In *Zacynthus* an Iſle in the *Ionian*-Sea, on the Weſt of *Peloponeſus*, if any there be hurt of a *Phalangium*, they are otherwiſe and more grievouſly tormented then in any other place, for there the body groweth ſtiffe and benummed; beſides, it is very weak, trembling and exceeding cold. They ſuffer alſo vomitting with a ſpaſm or cramp, and inflamation of the virge, beſides an intolerable pain in the ears and ſoals of their feet. The people there do cure themſelves by bathes, into which if any ſound man after that do enter to waſh himſelf, or be drawn into the ſame by any guile or deceitful means, he will forth-with fall into the ſame griefs and paſſions, that the other ſick patient endured before he received remedy. And the like to this writeth *Dioſcorides*, in his Chapter of *Trifolium aſphaltites*, in theſe words following.

The decoction (ſaith he) of the whole plant being uſed by way of fomentation, bathing or ſoking the body, ceaſeth all thoſe pains which are cauſed by the biting or ſtinging of any venomous Serpent: and with the ſame bathing or fomenting whatſoever ulcerous perſons ſhall uſe or waſh himſelf withall, he will be affected and have the ſame accidents, as he that hath been bitten of a Serpent.

Galen in his Book *De Theriaca ad Piſonem*, aſcribeth this to miracle, accounting it a thing exceeding common reaſon and nature: but I ſtand in doubt that that Book was never *Galens*, but rather fathered upon him by ſome other man. And yet *Ælianus* writeth more miraculouſly, when he affirmeth that this hapneth to ſome healthy perſons, and ſuch as be in good plight and ſtate of body, never ſo much as making any mention of ulcer or ſore. Thus much of the ſymptomes, accidents, paſſions or effects which ſtick and wait upon thoſe that are hurt by Spiders. And now I come the cure.

The general cure, according to the opinion of *Dioſcorides*, is, that firſt there muſt be ſcarification made upon the wounded place, and that often, and cupping glaſſes muſt be applyed and faſtened with much flame to the part affected. *Abſyrtus* counſel is to make a fumigation with Egge-ſhels firſt ſteeped in water, and then being caſt on the coals with Harts-horn or *Galbanum*, to perfume the venomed part therewith. After that to uſe Scarifications, to let bloud, or to ſuck the place; or to draw out the venom with Cupping-glaſſes: or (which is the ſafeſt courſe of them all) to apply an actual Cautery, except the place affected be full of ſinews. Laſtly, to provoke ſweat well, either in bed, covering the patient well with cloathes, or it is better by long and eaſie walking to procure ſweating. In ſome to attain to the perfect curation, you muſt work both with inward and outward means, ſuch as here ſhall be preſcribed and ſet before your eyes: whereof the moſt choiſe and approved I have ſet down for the benefit of the Reader: and firſt I will begin with *Dioſcorides*.

Inward Medicines out of Dioſcorides.

Take of the ſeeds of Southern-wood, Aniſe, Dill, the wilde Cicer, of the fruit of the Cedar tree, Plantain and Trifoly, of each a like quantity; beat them to powder by themſelves, before you do mix them: The doſe is two drams to be taken in Wine. Likewiſe one dram of the ſeeds of Tamariſk drunk in Wine, is very effectual. Some uſe decoction of *Chamæpitys*, and the green Nuts of the Cypreſs tree in Wine. There be ſome which praiſe the tree of Cray-fiſhes, to be taken with aſhes, milk, and Smallage ſeed; and this medicine experience hath approved and confirmed, for the ceaſing of all pains. Lye made of Fig-leaves is drunk with good ſucceſſe againſt all bitings of Spiders.

It is good alſo to take the fruit of the Turpentine tree, Bay-berries, leaves of the balm, and the ſeeds of all ſorts of Carrots: or to drink the juyce of Mirtle-berries, of the Berries of Ivy, or Mulberries, the juyce of Colewort leaves, and of Clives or Gooſe-greaſe with Wine or Vinegar. A dram of the leaves of Been-trifoly drunk in Wine, the decoction of a *Sparagus*, juyce of Sen-green, or any opening juyce is good for the ſame. Some uſe with very good ſucceſſe, the leaves of the herb called Balm with Nitre, and Mallows, boyled both leaf and root, and ſo taken often in a potion. The leaves of the herb called *Phalangium*, with his flowers and ſeeds. The ſeeds of *Nigella* alſo ſerve to the ſame end.

Medicines out of Galen.

Take of *Ariſtolochia*, of *Opium*, of either alike much, four drams, of the roots of Pellitory of Spain three drams. Make thereof Trochiſces, to the quantity of a Bean. The doſe is two Trochiſces, with three ounces of pure Wine. The aſhes of a Rams hoof tempered with Honey, and drunk with Wine. Remedies of *Diophantes* againſt the bitings of *Phalangies*. Take of Aſtrologe or Hartwort four drams, of Pellitory of Spain as much, Pepper two drams, *Opium* one dram, make thereof Trochiſces to the quantity of a Bean, and take two of them in a good draught of pure Wine. Another more excellent: Take of the ſeeds of wilde Rue, Rocket-ſeed, Styrax, *Sulphur vivum*, of either alike much ſix drams, of *Caſtoreum* two drams, commix them to make Trochiſces, as before, with the bloud of a Creviſh. The Doſe is one ſcruple and a half in Wine. Another: Take of Myrrhe, *Caſtoreum* and Styrax, of either one dram, *Opium* two drams, of *Galbanum* three drams, Smallage-ſeeds and Aniſe-ſeeds, of either alike two ounces and a half, Pepper thirty grains; make them up with Wine ſo much as is ſufficient. Another: Take of Myrrhe five ounces, of Spikenard ſix drams, of the flower of *Juncus rotundus* two drams and a half, *Caſſia* four drams, Cinamon three drams, white Pepper one dram and a half, Frankincenſe one dram and half a ſcruple, *Coſtus* one dram, make them up with Attick Honey: The doſe is the quantity of a Haſel nut, to be taken either in Mulſe or water.

Remedies out of Apollodorus.

Take of wilde Cummin two ounces and a half, the bloud of a Sea Tortoiſe four drams, the rennet of a Fawn or Hare three drams, the bloud of a Kid four drams; make them up with the beſt Wine, and reſerve it to your uſe: The doſe is the quantity of an Olive, in a draught of the beſt and pureſt Wine. Another: Take of the ſeeds of *Trifolium Bituminoſum*, of round Aſtrologe, the ſeeds of wilde Rew, the ſeeds of *Ervum* dryed in the Sun, of each alike ſix drams; work them with Wine and make Trochiſces thereof, every one of them weighing four drams: The doſe is one Trochiſce. Read more in *Galen*, in his ſecond Book *De Antid.* where any man may find many for the ſame purpoſe, which he had gathered and ſelected from divers Authors.

Out of Aetius, and Paulus Ægineta.

Take of *Sulphur Vivum*, and of *Galbanum*, of either four drams, of bitter Almonds excorticated one dram, of the Gum called Benzoin four drams, temper them in Wine, and after their maceration, work them up with ſome Honey to be taken inwardly. Being thus prepared, it may likewiſe be applyed outwardly. Another: Take of *Ameos* two drams, roots of Flowre-de-luce one dram, or elſe of Saint Johns-wort, or *Trifolium Bituminoſum*, drink them out of Wine. Or take of Aniſe-ſeeds, wilde Carrets, Cummin, *Nigella Romana*, Pepper and Agarick, of either one dram, and drink them. Or take the leaves of the Cypreſs tree, or the Nuts beaten in Wine, and three quarters of a pinte of the beſt Oyl, and give it to drink.

And to this end they do preſcribe Bay-berries, Scorpion-graſſe, wilde Thyme, Calamint, Chamepitys, either to be taken by themſelves alone, or with Rew and Pepper. *Aſclepiades* uſed theſe that follow: Take of the ſeeds of *Angelica* and Calamint, of either alike much, and powned together, to be taken in ſix ounces of Wine oftentimes in a day. Another: Take of Benzoin, the ſeeds of the wilde Carret, of dry Mints and Spikenard a little quantity, temper them up with Vinegar: The doſe is one dram, with pure water and Vinegar mixed together about five or ſix ounces. Another more excellent: Take Garlick and eat it, and a bath made of the ſame with Wine, and likewiſe all thoſe medicines which do heal the bitings of Vipers, are notable in theſe caſes. *Paulus Aegineta* commendeth all theſe very highly, and ſo doth he the ſeeds of *Agnus Caſtus*, or the leaves of the white Popler.

Out of Nicander.

Take of the pureſt Turpentine that diſtilleth out of the Pine-tree, and eat or drink it: for this is a very effectual medicine, which, as *Bellonius* reporteth, he hath found to be true by experience.

Out of Avicenna.

The fruit of the Myrtle tree, *Doronicum*, Maſtick, *Aſſa Fœtida*, Dedder, With-winde and his root, the Nut of *India*, and white *Bdellium* drunk with Wine. Take of the roots of Ariſtolochy, roots of Floure-de-luce, of Spike, Pellitory of *Spain*, the ſeeds of wilde Carrot, black Hellebore, Cummin, the roots of the true Daffadil, of the fruit of the Carob-tree, the leaves of Dates, tops of Pomgranates, Cinamon, of the juyce of Rue, Cray-fiſhes, Styrax, *Opium*, and *Carpobalſamum*, of either alike, one ounce, all theſe being powdered, make thereof Trochiſces the weight of one dram or four ſcruples, which is their doſe: Take alſo in Wine the decoction of the ſeeds of *Trifolium Bituminoſum*, Cypreſſe-nuts, and the ſeeds of Smallage. Beſides let him drink the grains or fruit of the Pine-tree, Cumin of *Æthiopia*, the leaves and rinde of the Palne-tree, the ſeeds of *Siler Montanum*, black and wilde Cicers, the ſeeds of Nigella, Southern-wood and Dill, Aſtrologe or Hartwort, the fruit of the Tamariſk-tree: for all theſe are very effectuall to cure the hurts that come by biting of any venomous Spider.

The juice alſo of wilde Lettice and Houſe-leek is excellent. The decoction of Cypreſſe-nuts being boyled, eſpecially with Cynamon, the broth of Crai-fiſhes, and of Gooſe-fleſh, and likewiſe the decoction of the roots of *Aſparagus* in wine and water. Another. Take of Aſtrologe and Cumin of each three drams to be drunk in warm water: an excellent and approved Antidote. Take of the ſeeds of Git or Nigella ten drams, Cumin-ſeed, *Daucus*-ſeed (or wilde Carret) of either five drams, Spikenard, Bay-berries, round Ariſtolochie, *Carpobalſamum*, Cinamon, roots of Gentian, ſeeds of the Mountain, Siler, and Smallage, of every one alike two drams, make a Confection with Honey. The doſe is the quantity of a Nut with old Wine. A confection of *Aſſa*. Take of *Aſſa fetida*, Myrrhe, and leaves of Rue, of every one alike quantity, temper them together with Honey. The common doſe is one dram, or two at the moſt in Wine.

Certain other ſelected Medicines out of Abſyrtus, Albucaſis, Lullus, Rhazes *and* Ponzettus.

Take of white Pepper thirty grains, drink it often in a draught of old Wine. Give alſo the herb Thyme in Wine. *Abſyrtus.* Let him drink after it a ſpoonfull of Wine diſtilled with Balm. *Lullus.* Take of drie Rue, of *Coſtus*, Horſemint, Pellitory of *Spain*, *Cardamomum*, of each alike, of *Aſſa fætida* a fourth part, Honey ſo much as is ſufficient, commixe them. The doſe is the quantity of a Haſel-nut in drink. *Albucaſis.* The brain of a Hen drunk with a little Pepper out of ſweet Wine or Vinegar and water mixed together.

A notable Treacle or Antidote againſt the bitings of *Phalangies* or venemous Spiders. Take of *Tartarum* ſix drams, of yellow Sulphur eight drams, Rue-ſeeds three drams, *Caſtoreum* and Rocket-ſeed, of either two drams, with the bloud of a Sea-tortoiſe, make an Opiate. The doſe is two drams to be taken in Wine. Another. Take of Pellitory of *Spain*, and the root of the round Ariſtolochie of each one part, of white Pepper half a part, Horehound four parts, temper them up with Honey, the doſe that is to be given is one dram. Another. Take of the roots of Capers, the roots of long Ariſtolochie or Hartwort, Bay-berries, roots of Gentian, of each a like quantity to be taken in Wine, or let him drink *Diaſſa* with ſweet ſtrong Wine, Cumin, and the ſeeds of *Agnus Caſtus*. Another. Take of the ſeeds of Nigella ten drams, of *Daucus* and Cumin-ſeeds, of each alike five drams, ſeeds of wilde Rue, and Cypreſſe-nuts, of either three drams, Spikenard, Bay-berries, round Aſtrologe, *Carpobalſamum*, Cynamon, the root of Gentian, ſeeds of *Trifolium Bituminoſum*, and of Smallage-ſeed, of either two drams, make a Confection with Honey ſo much as is ſufficient. Give the quantity of a Nut with old Wine. *Rhazes.*

Out of Plny, Celſus, *and* Scaliger.

It is good to give five Piſmires to them that are bitten of any *Phalangium*, or the ſeeds of *Nigella Romana* one dram, or Mulberries with Hypociſtis and Honey. There is a ſecret vertue and hidden quality in the root of Parſley, and of wilde Rue, peculiarly againſt thoſe hurts that Spiders infect by their venome. The bloud of a Land-tortoyſe, the juice of *Origanum*, the root of *Behen Album*, *Vervain*, *Cinquefoil*, all the ſorts of Sengreen, Cypreſſe-roots, the Ivy, of Ivy-roots being taken with ſome ſweet Wine, or water and Vinegar mixed and boyled together, are very Speciall in this grief. Likewiſe two drams of *Caſtoreum* to provoke vomiting being relented in ſome mulſe. *Apollodorus* one of the Diſciples of *Democritus*, ſaith, there is an herb called Crocides, which if any *Phalangium* or other poyſonous Spider do but touch, preſently they fall down dead, and their poyſon is ſo dulled and weakned as it can do no hurt. The leaves of the Bul-ruſh or Mat-ruſh which are next to the root being eaten, are found to give much help. *Pliny.* Take of Myrrhe, of *Una Taminea*, which is the berry of the herb called *Ampelos Agria*, being a kinde of Bryony, which windeth it ſelf about trees and hedges like a vine, of ſome called our Ladies ſeal, of either alike, and drink them in three quarters of a pinte of ſod Wine. *Item*, the roots of Radiſh or of Darnell taken in Wine is very effectuall. *Celſus.* But the excellenteſt Antidote of all other is that which *Scaliger* deſcribeth, whom for his ſingular learning and deep conceit, I may tearm *Noſtri orbis et ſeculi ornamentum*: The form whereof in this place I will preſcribe you. Take of the true and round Ariſtolochia, and of the beſt Mithridate, of either one ounce, *Terra Sigillata* half an ounce, of thoſe Flies which are found to live in the flower of the herb called *Napellus*, in number eighteen, juice of Citrons ſo much as is ſufficient, mixe them all together. For againſt this miſchief of Spiders, or againſt any other ſhrewd turns, grievances, or bitings of any Serpents whatſoever Art, as yet never found out ſo effectuall a remedy, or ſo notable an Alexipharmacall. Thus far *Scaliger*. The juice of Apples being drunk, and Endive, are the proper Bezoar againſt the venom of a *Phalangie*. *Petrus de Albano.* Thus much of inward: Now will I proceed to generall outward medicaments and applications. Five Spiders putrefied in common Oyl, and applyed outwardly to the affected place, are very good. Aſhes made of the dung of draught beaſts tempered with Vinegar, and uſed as an oyntment, or in ſtead of Vinegar, water and Vinegar boyled together, and applyed as before, are proved to be ſingular. Take of Vinegar three pintes and a half, *Sulphur vivum* two ounces, mixe them, and foment, bath, or ſoke the wounded part with a Spunge dipped in the liquor, or if the pain be a little aſſwaged with the fomentation, then waſh the place with a good quantity of Sea-water.

Some hold opinion that Achates (which is a precious ſtone, wherein are repreſented divers forms, whereof ſome have the nine maſts, ſome of *Venus,&c.* will heal all bitings of *Phalangies*, and for this cauſe being brought out of *India* it is held at a very deer rate in this Countrey. *Pliny.* Aſhes made of fig-tree-leaves, adding to them ſome ſalt and wine. The roots of the wilde Panax being beaten to powder, Ariſtolochie, and Barley-meal kneaded together and wrought up with Vinegar. Water with Honey and ſalt applyed outwardly for a fomentation. The decoction of the hearb Balm, or the leaves of it being brought to the form of a Pulteſſe, and applyed: but we muſt not forget to uſe warm bathes, and ſometimes to the place agrieved. *Pliny.* Cut the veins that appear under the tongue, rubbing and chafing the ſwelled places with ſalt and good ſtore of Vinegar: then cauſe the patient to ſweat carefully and warily for fear of cold. *Vigetius.* *Theophraſtus* ſaith, that practitioners do highly commend the root of *Panax Chironia.* Moyſten the wound with Oyl, Garlick bruiſed, Knot-graſſe or Barley-meal, and Bay-leaves with Wine, or with the dregs or Lees of wine, or wilde Rue applyed in manner of a Cataplaſm to the wounded place. *Nonus.* Take of *Sulphur Vivum, Galbanum*, of each alike, four drams and a half, of *Euforbium* half a dram, Haſel-nuts excorticated two drams, diſſolve them, and with wine make towards the curation. Flies beaten to powder and applyed upon the place affected. The fiſh called a Barble cureth the bitings of any venemous Spider, if being raw it be ſlit aſunder in the middeſt, and ſo applyed (as *Galen* ſaith) Anoynt the whole body with a liquid Cerote, and foment the place affected with Oyl wherein *Trifolium Bituminoſum* hath been infuſed, or bathe it often with Sponges ſoked in warm Vinegar: then prepare and make ready Cataplaſmes of theſe Ingredients following; that is, of Knot-graſſe, *Scala Cæli*, called *Salomons* ſeal, Leeks, Cheeſill or Bran decocted in Vinegar, Barley-meal and Bay-berries, and the leaves boyled in Wine and Honey. Some do alſo make Cataplaſmes of Rue or herb-grace, and Goats-dung tempered with Wine, Cypreſſe, Marjoram and wilde Rue with Vinegar. An emplaſter of *Aſclepiades.* Take of the ſeeds of wilde Rue, and Rocket-ſeeds, Staveſakre, Roſemary ſeeds, *Agnus Caſtus*, Apples and Nuts, or in ſtead of theſe two, of the leaves of the Cypreſſe-tree, of each alike, beat and temper them all together with Vinegar and Honey. *Aetius.* Apply the decoction of Lupines upon the affected place, the eſchar being firſt removed, then anoynt it in the warm Sun-ſhine, or againſt the fire with the fat of a Gooſe tempered with wilde Rue and Oyl, or elſe of the pap of Barley, and the broth of Lupines make a Cataplaſm. *Oribaſius.* The Filberd-nut that groweth in *India*, healeth the biting of theſe *Phalangies.* *Avicenna.* Goats dung diſſolved with other convenient Cataplaſmes, and Oyl of Worm-wood, and the juice of Figs helpeth much. *Kiranides.* Apply oftentimes a cold piece of iron to the place. *Petrus de Albano.* Foment the place very often with the juice of the herb Plantane. *Hildegardis.*

The artificiall Oyl of Balm is ſingular. *Euonymus.* A fomentation made of the leaves and ſtalks of *Imperatoria* called Maſterwort, and continued a good ſpace: or elſe *Vervain* bruiſed and ſtamped, the juice being taken in wine, and further, the herb outwardly applyed, is much commended of *Turneiſer.* Beat and ſtamp herb grace with Garlick and ſome Oyl, and apply it outwardly. *Celſus.* There be but a few particular cures for the bitings of Spiders that Phyſitians mention; yet ſome they doe, although the generall be moſt effectuall. *Pliny* againſt the biting of the *Formicarian* or Piſmire-lik *Phalangie*, that hath a red head, commendeth much another *Phalangie* of the ſame kinde, only to be ſhewed to the wounded patient to look upon, and to be kept for the ſame purpoſe, though the Spider be found dead. Alſo a young Weaſel dryed, and the belly thereof ſtuffed with Coriander-ſeed, and ſo kept till it be very old and ſtale, and drunk in Wine, being firſt beaten to powder, is likewiſe good for the ſame intention.

There is a certain little beaſt called *Ichneumon*, of ſome it is called *Mus Pharaonis*, *Pharoes* Mouſe, and for the enmity unto Serpents, it is called *Ophiomachus*, (as *Bellonius* reporteth) being bruiſed and applyed to the biting of any Waſp-like *Phalangie*, doth utterly take away the venome of them. It often entreth and ſearcheth out the ſeats and holes of venemous Spiders and *Phalangies*, and if it finde any of them, ſhe haleth and tuggeth them clean away as a Piſmire doth a ſmall grain of Corn: and if the *Phalangie* offer any reſiſtance, the *Ichneumon* ſparing no labour, pulleth her the contrary way: and by this ſtrugling and ſtriving, ſometimes it ſo falleth out that the *Ichneumon* is wearied, and then ſhe breatheth a little, and gathering new ſtrength and courage, ſetteth again upon the *Phalangie* with a freſh aſſault, and woundeth her many times, ſo that at length ſhe carrieth her to her own lodging there to be devoured.

If the *Tarantula* have hurt any one, the beſt remedy is to ſtirre and exerciſe the body continually without any intermiſſion, whereas in all hurts that are cauſed by any other Spiders, reſt and quietneſſe are the beſt means (as *Celſus* affirmeth.) But their Antidote is muſick and ſinging.

Chriſtophorus de honeſtis counſelleth to take forthwith *Theriaca Andromachi* without any delay. He alſo adviſeth to take Butter tempered with Honey, and the root of Saffron in Wine. His proper Bezoar (ſaith he) or the green berries or ſeeds of the Lentisk-tree. *Ponzettus* in his book *De venenis*, adviſeth to take ten grains of the Lentisk-tree in Milk, or an ounce and a half of the juice of Mullberry-leaves.

In the increaſe of the grief, he cureth them with Agarick, or the white Vine: and after much ſweating, they are to be comforted and refreſhed or ſtrengthned with cold Medicines, as with the water of Popy, and the like (*Merula* ſaith) they are to be remedied with the ſtone of Muſicall Inſtruments, dancing, ſinging and colours : concerning the three former I will not contend, but how they ſhould receive any part of help or health from viewing of any colours I do not well underſtand ; conſidering that the eye-ſight of all thoſe that are bitten of a *Tarantula*, is quite taken away, or they ſee but obſcurely, as being mightily deceived in their objects.

Andreas Matthiolus in his Commentaries, upon the ſixth book of *Dioſcorides*, Chap. 40. reporteth a very ſtrange ſtory of a certain Hermit, his old friend and acquaintance dwelling neer unto *Rome*, who cured all thoſe who were bitten or hurt of any venemous Worms or Serpents, which in this laſt place I will inſert (although ſome may ſay that it is needleſſe, and belongeth not at all to this diſcourſe in hand, or elſe will not beleeve it.) For when as any of the inhabitants in thoſe parts were wounded of any poyſonous Serpent, by a Meſſenger forthwith ſignified the ſame to the old Hermit ; who by and by demanded of the Meſſenger, whether he could be content to take or drink any Medicine in ſtead of the ſick patient ; which if the other aſſented to, promiſing to take it, the Hermit commanded him without any further delay, to pull off his right foot ſhooe, and to ſet his foot on the earth, drawing a line round about the foot with his knife : then he willed him to take away his foot, and within the ſpace of the line ſo marked, he writ or engraved theſe words following *Caro Caruze, ſanum reduce, reputata ſanum, Emanuel paracletus*. Then immediately he pared away the earth with the ſame whittle, ſo that all the Characters were quite defaced, putting the ſame earth into a little earthen veſſell full of water, letting it there ſo long remain, untill the earth ſunk to the bottom : Laſtly, he ſtrained the water with a piece of the Meſſengers ſhirt, or ſome other linnen that he wore next to his ſkin, and being ſigned with the ſign of the Croſſe, gave it him to drink : But ſurely (ſaith *Matthiolus*) it was marvellous ſtrange, and a wonderfull thing to conſider, how that the wounded patient was perfectly healed, even at that very hour and moment of time, that the Meſſenger took the aforeſaid potion of the Hermit, as it is plainly known unto my ſelf, and to all the people that dwell round about in that Territory or Shire. And thus much of this Heremiticall curation by the way.

Now will I come into my path again. A man may finde a great ſort both of theſe, and the like remedies both in *Pliny*, *Dioſcorides*, and other, concerning the hurts of Spiders, but I think I have been a little too tedious, and you may imagine that I do nothing but *Ta arachina byſhainein, Aranearum telas texere* : That is, in a frivolous matter and of ſmall moment ſpend infinite and curious labour ; ſo that I had more need to crave pardon for my long diſcourſe about this ſubject, wherein though many things may want to the ſatisfaction of an afflicted and ſearching head, yet I am ſure here is enough to warrant the diſcharge of my good will, and to repell the cenſure of the ſcrupulous ;

——Nunc imus ad illam
Artificem, mens noſtra cui eſt conformis, Arachnem,
Quæ medio teneræ reſidens in ſtamine telæ
Qua ferit eurus atrox, trepidat volitantibus auris
Tangitur, utque ſono vagus illi byſſus ab æſtro.

In Engliſh thus ;

Vnto Arachne ſkilfull Miſtreſſe let us come,
To whom conformed ſeems the minde of man,
She ſits in middeſt of web, her tender feet upon :
Whiles ſhe is toſt with Eaſt-winde now and than,
She trembleth at the noyſe of ratling winds,
As when the humming Flie hard wagging finds.

Of the Tame or Houſe SPIDER.

A*Riſtotle*, that diligent ſearcher and ſeeker out of Nature and naturall cauſes, termeth this kinde of Spider a very gallant and excellent wiſe creature. King *Salomon* himſelf, at whoſe high wiſdome all ſucceeding ages have and will admire, amongſt thoſe four ſmall Creatures, which in wiſdom do out-ſtrip the greateſt Philoſophers, reckoneth the Spider for one, dwelling (as he ſaith) in Kings Courts, and there deviſing and weaving his inimitable web. The Poets faign that the Spider called *Arachne*, was in times paſt a Mayden of *Lydia*, who being inſtructed of *Minerva* in the cunning skill of Embroydery and ſpinning, grew therein ſo excellent, and took ſuch a pride in the ſame, (for you muſt remember ſhe was a woman) that ſhe ſtifly denyed, facing it out in braving wiſe, that *Minerva* was never her Inſtructer, and ſo arrogant preſumptuous ſhe was, as that ſhe feared not to challenge her Miſtreſſe Goddeſſe to work with her, if ſhe durſt for her ears enter the liſt, in all manner of Embroydery, Tapeſtry-works, and the like.

At which, Miſtreſſe *Minerva* being netled, and taking the matter in dudgeon, thus to be provoked, and withall reprehending the mayd very ſharply for her ſawcineſſe, in a pelting chaſe ſhe brake to pieces the wenches imagery work, that was ſo curiouſly woven, and ſo full of variety, with her ſhittle. The Mayd hereat being ſore grieved, half in deſpair, not knowing what to doe, yeelding to paſſion, would needs hang her ſelf. But *Minerva* taking compaſſion upon her, would not have her die forthwith, but transformed her into a Spider, hanging by a fine ſmall thred or line.

Atque ita vive quidem, pende tamen, improba, dixit,
Lexque eadem pœnæ, ne ſis ſecura futuri,
Dicta tuo generi, ſeriſque nepotibus eſto.

In Engliſh thus;

So live indeed, yet hang, thou woman vile,
She ſaid, and let the ſelf ſame law of puniſhment
Be unto thee and all thy offſpring, while
All kindred laſts: ſhall not futures thee content.

If any be deſirous to know more of this fable, let him read the famous Poet *Ovid*, who hath excellently written thereof in the ſixth book of his Metamorphoſis, although ſomewhat differing from this of *Pliny*. The *Grecians* beſides do write, as *Cælius Rodoginus*, in his 7. book *Lectionum Antiq.* Chap. 16. affirmeth, how that there was in the Countrey of *Attica* a certain man called *Phalanx*, who had alſo a Siſter named *Arachne*, and when *Phalanx* had perfectly learned of *Minerva* the Military Science, and all other warlike exerciſes and offices that belong to a Souldier, and that ſhe had likewiſe inſtructed his Siſter *Arachne* in weaving, ſpinning, and needle-work, they concluded a match between themſelves, but the Goddeſſe being much diſpleaſed with ſuch a ſhamefull and inceſtuous marriage, marring their faſhion, ſhe disfigured them both into the number of creeping Creatures, laying this as a juſt puniſhment upon them, to be deſtroyed of their own young ones.

But it is at every mans choice to interpret theſe to be either fables and *Canterbury* tales, or true hiſtoricall narrations: yet moſt are of this minde, that *Arachne* firſt invented ſpinning of linnen, weaving and working with the needle, which this mayd of *Lydia* firſt learned from the Spiders, taking her firſt Samplers and patterns from them for imitation; which no man ought to think to be ſtrange, ſith the craft of playſtering or working things in earth, and the Art of curing the eyes, was firſt taken from the Swallowes. The Eagles have taught us Architecture, and men firſt received the light of Phlebotomie or letting of bloud from the *Hippopotamus*, which is a beaſt living in the River of *Nilus*, having feet like an Oxe, and his back and mane like a Horſe, with a winding tayl, and tusked like a Boar. The bird of *Egypt* called *Ibis*, firſt gave knowledge to Phyſitians how to uſe the Glyſter; yea, Dogs, Goats, Harts, Storks, Swallowes and Weaſels, have taught men many medicines for many diſeaſes.

To begin therefore to make an enumeration of their prayſes, I will declare unto you, the rich vertues and externall goods of the body, fortune and minde. And firſt to begin with the good gifts of their bodies. If you will weigh and conſider the matter and ſubſtance of a Spiders body, you ſhall finde it to be light, partaking much of fire and ayr, (being two of the moſt noble and effectuall elements in operation) and having but little earthy dragginеſſe and droſſy refuſe. If you behold their figure, they have either a Sphæricall and heavenly, or at leaſt wiſe an Ovall form, which is next to the Sphæricall, as being the perfecteſt of all other. Beſides, their ſubſtance is thin, fine, gliſtering, and ſubtile, yea, although they ſeem now and then to be fatted up with plenty of meat, that they grow as big in bulk as a Walnut, and if the learned *Cardan* may be credited, they grow otherwhiles as great as a Sparrow: yet for all that, if you caſt your eye on them againſt the light, hanging in their web, ſhe glittereth and ſhineth on all parts like unto the Chryſolite, which is a kinde of precious ſtone, ſhining with a golden colour quite thorow, cauſing a pleaſant reflexion to the eyes, and piercing them with ſingular delight.

The colour of a Spider is ſomewhat pale, ſuch as *Ovid* aſcribeth to Lovers, and when ſhe hangeth aloft in her web, with her legs wide and large ſpread abroad, ſhe perfectly and lively expreſſeth the ſhape and proportion of a painted Starre: as if nature had intended to give and beſtow on her, not onely the reſemblance and counterfeit ſimilitude of heaven, but alſo the very luſtre of the Starres themſelves. The skin of a Spider is ſo ſoft, ſmooth, exquiſite, pure, clean, and neat, that it farre ſurpaſſeth by many degrees, the poliſhed skins of thoſe maids that have the Green-ſickenſſe, or thoſe young whores that are ſo carefull in ſparing no coſt to preſerve their beauties: and it is of ſuch cleerneſſe and perſpicuity, that it will eaſily repreſent the viſage and phyſiognomy of any beholder of it, much like unto a fine glaſſe. Further, it hath fingers, for all the world ſuch as fair Virgins deſire to have, that is to ſay, long, round, and ſlender, being alſo endued with the moſt exquiſite ſenſe of touching that poſſibly can be imagined, inſomuch that it farre ſurmounteth any mortall man living, and all other creatures in the world beſides, according to that old and common Verſe;

Nos aper auditu præcellit, Aranea tactu,
Vultur odoratu, Lynx viſu, Simia guſtu.

Which may be Engliſhed thus;

To hear, the Boar, to touch, the Spider us excells,
The Lynx to ſee, the Ape to taſte, the Vulture for the ſmells.

It hath alſo feet, but yet not ſuch a multitude as Scolopendraes have, nor yet none at all, as the meaneſt rank and ſort of Creatures, nor yet ſix only, as the common ſort of Inſects: but it hath eight, a number which the meaneſt Sophiſter in *Cambridge* can reſolve, is next to the perfecteſt of all numbers, and theſe feet conſiſting of a ſeſquitertiall proportion, which of all Mathematicians is eſteemed to be wonderfull and admirable, ſo that although the hinder be ſhorter then the fore-legs, yet notwithſtanding they retain a mutuall harmony, equality, and ſemblable concordance. Many Philoſophers have not dared to affirm that they are blinde, but they themſelves in this poynt are moſt blinde. For if they be deprived of their eyes and eye-ſight, I would ſain be reſolved how they could make choice of ſuch apt and convenient places for their hunting trade, and with what guide, Captain, or Directer, they do knit, faſten and tye one thred to another, in ſuch admirable order, rank and range, as the excellenteſt work-men in the world ſtand amazed at. Or elſe how they can come to the knowledge when their webs are broken by chance, or have the skill to amend them, being either ſhaken or burſt in ſunder. Beſides, we may all obſerve by our own experience, that if one take a flie, and hold her at the ſide of the web, the familiar, tame, or domeſticall Spider eſpying her, will make all the haſte ſhe can through thick and thin, yea though ſhe be farre off, and will boldly aſſayl and devour her, and will (as a man may ſay) take her out of your hands into her own, which thing I have often ſeen done. Surely therefore thoſe perſons are half blinde, who neither can conceive nor ſee, that Spiders can ſee.

Now in that a Spider ſeemeth to ſome to be an ugly and loathſome Creature, and even at the firſt ſight to be deteſted, in regard it is ſo miſhapen, I will not impute this to any defect or default that is in their form or proportion, but I rather aſcribe it to their exceeding great Melancholy (for this humour is moſt predominant in them) and to their ſtrange luſting or longing, by reaſon of naughty humours gathered about the mouth of the ſtomack, yea, and to their lack of ſtay and moderation in their luſts and affections. For they are no leſſe beholding to Nature for their elegancy, handſome and proper feature, then the Butter-fly, or any other Cut-waſte whatſoever. To conclude this poynt, GOD hath given and beſtowed upon this ſtrange and admirable body, as ſtrange and admirable a diſpoſition, nature, and conſtitution of the skin. For a Spider changeth her skin, not once only in a years ſpace, (as Vipers do) but once in the ſpace of a moneth ſhe reneweth it, (if ſhe be well fed, and not hunger-ſtarved) and putteth on a new hue and skin, and the ſame in all poynts more freſh, exquiſite and neat, then the old skin which ſhe caſt off.

Amongſt the bleſſings of Fortune, or rather Fate, I eſteem this to be the excellenteſt that is conferred upon them, in that they bear about with them an inexhauſted matter or ſubſtance in their bellyes, to make infinite webs, yea, ſuch a matter as can never be conſumed, waſted or ſpent, of which they have ſuch foyſon, as they are able to draw out in length and breadth, and to ſpin and deviſe innumerable threds and ſtuffe to make and finiſh their Cob-webs of, ſo that if a hundred flies light in them, they are of force ſufficient ſo to entangle and enſnare them all, as they ſhall never get out again. Furthermore, although they have neither food nor ſuſtenance laid up in Barns or Store-houſes, as Piſmires have, nor yet any meat ſet or ſowed for them as Bees have, but get their commons only by taking of booties caſually, by hunting at all adventures, and by chanceable preys, yet do they ſatisfie nature, and expell hunger, by means of that hazardous and ſuddain ſpoyl; and ſometimes you ſhall ſee them grown very thick, fat, and unwieldy, by reaſon of theſe good diſhes, and fat meſſes of meat which they can purchaſe by their own good wary husbandry, or by any means can lay hold on, and catch into their clawes.

Beſides, I muſt tell you that Spiders have not the leaſt benefit of Fortunes favour beſtowed upon them, when as being inglutted with Courtly Viands, they have been glad to exchange lodgings with an old Courtier called *Podagra*, or the Gowt, for it skilleth not whether of theſe two names you will chuſe. For you have heard before, the wiſe King *Solomon* to have given them the moſt prime and chiefeſt places in Princes Courts, that ſhe might be an abſolute pattern and preſident of wit, wiſdome, moderate frugality and vertue, and in divers poynts of regiment they might be our directors for imitation. Further, beginning their Cob webs, they have wholly bent and applyed themſelves to their moſt ingenious weaving trade, they have given themſelves to curious and ſuperſtitious hunting, to captious taking at advantage, watching and eſpying their prey, nothing at all fearing any ambuſhes, treacheries, traps or treaſons and no whit dreading any aſſaults, much leſſe triumphs: and to ſpeak briefly, the wiſeſt creature of the wiſeſt King, beareth a great ſtroke, domineereth, and hath (I may ſay) the ſole ſoveraignty in the moſt noble, greateſt, and ſtatelieſt Courts of Princes.

And yet for all theſe vertues, (ſince *Salomons* time) there have riſen up and followed ſome Princes and Governours, unadviſed, deſperately naught, and unthrifty, and ſuch as were not well in their wits, and of thoſe it cannot eaſily be ſpoken how churliſhly they entertained her, how they ſent out their proclamations and warrants, to expell the Spider, to caſt her down to the earth, tread under foot, undoe and kill, as a night-thief, with beeſoms, brooms, bruſhes and long poles, ſo that by and by in a trice there flocked certain Furies of hell, (for ſo I think I may juſtly term them) rubbing, bruſhing, ſpunging, making clean ſluts-corners, beating and ſweeping together, and whatſoever they found curiouſly wrought, all that either they ſwept clean away, or tore all to pieces, ſo that hardly they could eſcape the buſie beeſomes of theſe quick-ſighted and lewd naughty packs.

Surely, miſerable was her condition and eſtate, which in all that abundance of wealth, ſhe only being indigent and bare, deteſting idleneſſe withall, might not yet be admitted tenant for ſome ſhort term of time, in ſome ſmall odde corner, in ſuch large and ſpacious buildings, nor yet finde one hole to live at peace in. Again, the great men, the rich miſers and penny-fathers, following the example of their Princes and Governours, they in like ſort ſent packing out of their doors, the School-miſtreſſe of all labour, diligence and vertue, and will not permit a web, the very pattern, index, and anathema of ſupernaturall wiſdome to remain untouched.

This ſame Spider which now we treat of, in times paſt, (it was when Dogs and Cats could ſpeak, for now becauſe there are ſo many languages in the world, they turn all to plain barking) took a long journey into a ſtrange Countrey, and by good hap fell into company with my Lady *Podagra*, although (being none of the beſt footers) ſhe could hardly keep way with the Spider, but lagged ſtill behinde, and having now ſpent one whole day in travell, the night approaching that they ſhould take up their Inne to lodge in, they reſolved betwixt them two to betake themſelves to ſundry houſes; ſo the Spider entring the Town, took up her lodging in the houſe of a certain wealthy Citizen, (I ſuppoſe it was neer the ſign of the three Tunnes in *Tower-hill-ſtreet*) where when according to her uſuall manner, hating lewd idleneſſe, ſhe began to buckle her ſelf to her wonted task, in weaving her fine Tapeſtry, and other wrought work, being ſuddenly eſpyed of a company of corner-creepers, Spider-catchers, fault-finders, and quarrell-pickers, they preſently begin to expoſtulate the matter with her, and not ſtaying to hear any reaſon for her juſt defence, they made no more adoe but gave her Jack-drummes entertainment, thruſting her out of doors by the head and ſhoulders, to ſeek her lodging where ſhe could finde it; ſo that ſhe lay abroad without doors a whole Winters-night in the rain and cold: and all this happened about Saint *Nicholas* time, when dayes are at the ſhorteſt.

Now in the mean ſpace *Podagra* having none of the beſt feet, but indeed being ſomewhat lame, when ſhe could travail no further, ſhe by chance light into a poor Cottage or cabbin of turfs, builded with Elder-poles at the Towns end, and yet in this poor ſhed ſhe could hardly be received, but yet at length, through her inceſſant ſolicitation being admitted, ſhe ſate down to reſt her weary bones, ſo at length, ſupper being prepared, the tender-hearted Lady found courſe fare, and commons farre ſhorter and more homely, then ever *Lipſius* found in *Weſtphalia*: ſhe indured all the miſeries in the World, that pity it was to ſee. There was no infelicity, no diſtreſſe, misfortune and adverſity to be compared unto hers, for there was nothing but a little brown Barley-bread ſet on the board to ſup withall, which this nice piece ſo much miſliked and abhorred, as that at the very ſight thereof ſhe was ready to diſgorge her queaſie ſtomack, then was there brought ſome Cock-crown keal, having no good reliſh, for they were not ſeaſoned with ſalt, ſo that they were in taſte very untoothſome, and when they ſhould drink, they fetcht a little cold water out of a pit or pond, neer adjoyning to the houſe, in a wooden diſh, whereof if Miſtreſſe *Podagra* had fetched but one ſound carouſe, it would have made her run through an Alphabet of faces: but there was no remedy, hunger breaketh ſtone-walls, and hard need makes the old wife trot, ſhe muſt either quench her thirſt with that or faſt.

Having thus thinly ſupped, ſhe called for her Chamber, where they ſhewed her to climbe up a Ladder, (you would have taken it to have been the fleas Ladder) and behinde a corner there was provided a bed ſtuffed with good Wheat-chaffe in ſtead of Down, to harden her hide, and under her head a hard Oken-logge, with the Winnow-cloth, and the one end of an old Hop-bag, caſt over in ſtead of a Coverlet, (for the poor man and his wife, thought that none but the Lord of the Town, and women in childe-bed uſed Pillowes.) But *Podagra* not knowing how to mend the matter, groaned and made a lamentable noyſe, and fetching a thouſand ſighes ſhe couched her ſelf down. But alas what ill reſt ſhe poor heart took that night, and how ill her ſoft and tender limbs agreed with ſuch cold cheer and entertainment, I referre my ſelf to your ſecret thought. So ſoon therefore as the day began to break, ſhe ſtarted up, and the Spider and ſhe met together again at the appointed time and place: and firſt of all the Spider began much to complain of the incivility of the rich Chuffe his hoſt the Citizen. *Podagra* contrary-wiſe found as much or more fault with the ſhort and ſharp commons, thin diet, miſerable poverty, and indigency of his poor, bare and lean hoſt, ſhewing her black and blew marks and prints, into whoſe tender skin the boards and planks had made a deep impreſſion. For which cauſe, being both much diſcontented, after the matter was throughly debated betwixt them two, they determined and reſolved within themſelves, that the night following they would change Hoſtes and Innes, that is, that the Spider ſhould enter into ſome poor Cottages, or houſes of poor men, and *Podagra* ſhould bend her courſe unto Noble and great mens houſes, to Kings Courts, and Princely Palaces, to ſee what good was to be done there. So *Podagra* not being unmindfull of her word, went with a fine and Snail-like pace to the houſe of a certain fat, rich, and well monied man, and quietly laid herſelf down at the feet of this corſie Sire: which as ſoon as the gentle Hoſt caſt an eye upon, it is ſtrange to tell with what mildeneſs, with what allurement and gentle intreaty, with what promptitude and alacrity ſhe was welcomed; they prepared ſoft pallats of Down for her to lye upon, the Bedſteds and the Settles whereon ſhe ſhould reſt, were covered with Pillowes, ſoft Cuſhions, and Carpets of *Perſia*, the Kitchen ſmokes, and all things are in a readineſſe to give her a moſt friendly wellcome. According to the words of the Poet, where he ſaith;

Jam dapibus menſas onerant et pocula ponunt.

In Engliſh thus;

Spread are the tables, and laded with ſtore
Of delicates, the Cups filled, could receive no more.

Briefly, he was in all points for perſon and proviſion ſuch a one as *Chaucer* in his works deſcribeth his *Franklin* to be:

Whitt

White was his beard as the Daiſie,
And of complexion he was ſanguine,
Well loved he by the morrow a ſop in wine:
To liven in delight was ever his won,
For he was Epicures own ſon,
That held opinion that plain delight,
Was very felicity parſite.
An houſholder and that a great was he,
Saint Julian he was in his Countree,
His bread, his ale, was alway after one,
A better viended man was never none.
Without bake-meat was never his houſe,
Of fiſh and fleſh, and that ſo plenteouſe,
It ſhewed in his houſe of meat and drink,
Of all dainties that men could think.
After the ſundry ſeaſons of the yeer,
So changed he his meat and his ſuppere.
Full many a fat Patrich had he in mue,
And many a Bream, and many a Luce in ſtue.
Woe was his Cooke, but his ſawce ever were
Poynant and ſharp, and ready all his gere.
His table dormaunt in his Hall alway,
Stood ready covered all the long day.

Nay, hither they brought fat and crammed Capons, Pheaſants, Quails, Turtle-doves, Larks, and Nightingals. I paſſe over Turbot or Byrt, Gilt-heads, Sturgion, Salmonds, Soals, and the like, for they were not unfurniſhed of all theſe, and of other ſtore of ſhell-fiſh, as Lobſters, Creviſhes, Oyſters, and whatſoever the Sea yeelded that might by love or money be purchaſed: for I will not ſpeak of a great number of River-fiſh and Fouls that are to be had about *Peterborow*, *Wittleſey-mare*, and thoſe Fenniſh Countreys, for thither he ſent his people to purvay for him all that was rare and dainty. Here was Red-wine, White, Claret, Muſcadell, Rheniſh, ſweet-wines, harſh-wines, wine of *Falernum*, of the Iſlands of *Creta*, *Chio*, *Madera*, and thoſe that are called *Baleares*, lying neer unto the Coaſt of *Spain*.

To ſpeak nothing of their rear-ſuppers, their fine Marchpanes, and curious Confections, made with ſundry deviſes, and exquiſite skill of the Apothecary. And to conclude, there was no wanton fare unſought for, no delicate Juncate, no curious trimming and pickedneſſe that might gratifie, no fair words, and pleaſant enticements fit to draw and allure, nor no delectation whatſoever omitted, that might ſeem to pleaſe this great Lady *Podagra*, (for you muſt underſtand ſhe was none of the courſeſt ſort of Ladies, whereof there be many now adaies, for all men know ſhe was a Gentlewoman born, both by the fathers and mothers ſide, as being the daughter of *Bacchus* and *Venus*,) and all this, I ſay, was done to pleaſe both her and her two ſweet Siſters, *Chiragra* and *Congra*, a pox take them all three, and ſo I will let them go, and come to the Spider, who likewiſe being directed by ſome favourable Planet, boldly and luckily trudged to the poor mans houſe.

——Atque ibi miro
Dogmate, quidve marem deceat, deceatque maritam
Addocet, atque ſuo ſeſe ſudore ſaginat.

Which may be Engliſhed thus;

And there by ſtrange inſtructions and documents,
She teacheth male and female how to live,
That is, both man and wiſe how to increaſe their rents,
Whilſt ſhe, on her own ſweat and fat doth thrive.

But ſome man may here object and ſay, I ſee here no ſuch great bleſſings of Lady Fortune, more then beſides a bare commendation, and good hap in this their exchange of lodging and lodgers. Yes ſurely, very much, not only becauſe ſhe ſpendeth her dayes more freely and ſafely from danger, but alſo becauſe as out of a high watch-tower, ſhe no longer beholdeth in the houſes of poor perſons, laviſh and needleſſe prodigality, banquettings, quaffings, rioting, playes, dancing, dicing, and whoring, and a thouſand vanities and villanies beſides, whereof ſhe knew her ſelf conſcious, and a privy witneſſe unto, whilſt ſhe lived in the Halls and Bowers of the rich and wealthier ſort; who when they had thruſt clean from houſe and home, and for ever baniſhed the Spider, (the true School-miſtreſſe of induſtry and frugality) ſtraightwayes the lazie Gowt called *Podagra*, arreſted them. Had it not been better for them (think you) to have granted a dwelling place to a ſaving, wiſe, prudent, and harmleſſe little creature, then to have given entertainment to ſuch a baſe, blockiſh companion and gueſt as the Gowt is? Let not therefore, rich, covetous men wonder, if many times they be tormented with this ſore grief, ſith they will neither admit true Phyſitian nor phyſick, I mean, travail, diligence, induſtry, moderation, and pains-taking, with the like.

Now to touch the rich and rare gifts and graces of the minde, and other noble qualities and diſpoſitions of Spiders, I know not whether I ſhould firſt begin with the commendation of their prudence, juſtice, fortitude, temperance, their *Philanthropia*, *Philoponia*, *Autarkeia*, their humanity and love towards men, their ſtudious induſtry and love of labour, their contentation as having ſufficient, and coveting no more then is allotted unto them. Their wittineſſe, policy, quickneſs and ſharpneſſe of ſenſe, their cleanly neatneſſe, with many other vertues, or elſe her admirable cunning and skilfulneſſe in their weaving trade. Their prudence, ſagacity, and wittineſſe to conjecture things future, appeareth in this one thing, that when great abundance of rain, flouds, ſwelling and overflowings of Rivers, are like ſhortly to come to paſſe, and thereby to threaten houſes, they then begin to build their Webs higher by a great deal, then their uſuall cuſtome heretofore hath been. And this is another proof of the ſame, in that they weave not at all in a clear Sun-ſhine-day, or when it is fair and calm weather, when Flies are moſt buſie in flying about to and fro, that they may be the better at leaſure to give themſelves to hunting and watching after them, to take advantage, and if any chance to light into their nets, forthwith to ſeize upon them for their repaſt.

Again, when houſes are ready to drop down, they with their Cobwebs firſt of all fall, and get them away packing, alter their climate to ſome other ſurer place and dwelling to reſt in. If any thing touch her body that is hard or painfull, ſhe immediately draweth up her legs round on a heap, for this end as I think, to feel the leſſe pain, and the better to provide for the health and ſafety of her head, the directer and governer of the whole body: for if any other part be hurt, ſhe can eaſily cure it. Who hath manifeſted and made known this unto them? Hath any *Chaldean* Star-gazer, or figure-flinger, by the ſight and poſition of the ſtarres ſhewed it unto them? No certainly. But a divine prudence and forefeeling knowledge, originally inbred by Nature, to eſchew that which is hurtfull, which is diffuſed into the Spider, and as that famous Poet *Virgilius* hath excellently deſcribed,

Spiritus intus alit, totoſque infuſa per artus
Mens agitat molem.

In Engliſh thus;

Minde bred within, infuſed in all limbs,
Minde moves the bodies lump, and skins.

Furthermore, ſo ſoon as they eſpy their enemy to be caught in their nets, they do not firſt of all bite and prick him to death in any hoſtile manner, but they ſeem with their feet gently and ſoftly to ſtroke him, yea even to intreat and allure him with tickling, and as it were clipping and colling, untill they have throughly inſnarled him within their clammy and viſcous gins, and being at length wearied, turmoiled, and tired with ſtrugling and ſtriving in vain, the ſilly Flie is made unable either to get away, ſtir, or reſiſt. So having made ſure work with one, ſhe hyeth her to the center of her Web, obſerving and prying whether any new prey will come to hand again: ſo by this policy you ſhall ſee ſometimes ten, yea otherwhiles twenty Flies hanging aloft by their ſtrings and fine-ſpun threds.

They only feed on the juice of Flies, and the dry Carkaſe without any moyſture, they caſt away as unprofitable ſtuffe to be uſed about any buſineſſe. Moreover, becauſe the Female Spider is ſometimes greater then the Male, therefore ſhe chuſeth her ſtanding in the lower part of the Web, that the poor Flies may ſeem careleſſe of her, yet is ſhe very obſervant, taking great heed to them: for they ſeeing her hanging below, thinking themſelves ſafe, do fly up into the upper part of the net, but by this means ſeeking to ſhun *Charybdis*, they fall into *Scilla*, out of the ſmoke into the fire: for though in regard of her bodies magnitude, ſhe be unwieldy, and very unfit to beſtir her ſelf in this hunting office: yet the crafty Male Spider playing Bo-peep, and pretending ſome other buſineſſe, though minding another, playing the diſſembling Hypocrite, hideth himſelf in the top of the Web, noting well all occurrents, and being ſeen of no body, there he lurketh till ſome fiſh (as we ſay) come to his net, and having eſpyed his prey, being more light, quick, and lively, it is a wonder to ſee how diligent, vigilant, and earneſtly bent he is to bend his courſe with all expedition toward this new offered booty; for there he will not ſuffer it very long to remain, but deſcending in a trice, *Euro velocius*, as quick as a Bee from the upper to the lower part (as I have ſaid) of the Cobweb, he maketh a very quick diſpatch, and having royally feaſted himſelf, he reſerveth and layeth up all his other enemies in one place, hanging them all by one of his own threds till ſome convenient time to feaſt himſelf again withall. Then again when as by reaſon of long continuance and length of time, the Webs have loſt their binding viſcoſity, and tenacious ſubſtance, either the Spider unweaveth them again, or elſe confirmeth and new ſtrengthneth them afreſh as it were, with another new glutinoſity, or faſt-binding clammineſſe. This their work being finiſhed, they either contain themſelves in the center of it, or keeping ſentinell and warding in the upper part, they hold as it were in their hands a thred drawn from the middeſt or center, by which they have eaſie acceſſe and receſſe to and fro to their beguiling nets; and withall this thred ſerveth to another profitable uſe, for if any prey be intangled, by the light moving and ſtirring of it, they preſently feel and perceive it. But yet to make ſure work, leſt ſhe ſhould winde down in vain, or take bootleſſe labour about nothing, ſhe draweth back the thred a little now and then, and by the motion and poize of it, ſhe putteth all out of doubt, being fully aſcertained of the truth.

Then firſt, with all celerity poſſible ſhe hies her to the Center, which thing the ſilly Flies being faſt, and having ſome ſenſe and feeling (as it ſhould ſeem) that they are taken tardy, and for deeming ſome hurt, are as quiet as a Mouſe in a trap, making no noyſe at all, leſt either they might bewray or betray themſelves, and ſo be further enfolden in danger. But alaſſe in vain doth he avoyd warre, that cannot enjoy peace, and bootleſſe doth he ſhun pain, that hath no means to feel reſt: for this availeth but little, for they are not able with all theſe fetches to deceive their ſharp inquiſitors, for both with eyes and feet, they finely and quickly run unto them, making a clean riddance and quick diſpatch of them every one.

But yet it is more to conſider what great juſtice and equity is obſerved to be in Spiders: For there is not one of them ſo ill bent, ſo malapertly ſawcy, and impudently ſhameleſſe, that can be ſeen to lay claim unto, or to take away anothers wife or mate: there is none that intermedleth with anothers ſubſtance, buſineſſe, or weaving; every one liveth contented by the ſweat of his own browes, by their own proper goods and induſtrious pains-taking procured by their own bodily labour: ſo that not one of them dare enter his Neighbours freehold, but it is accounted a hainous matter, and very unlawfull, not one dare be ſo knack-hardy as to break into their friends and fellowes fence and encloſure, but it is even deteſted as a wicked and curſed deed.

Non ita mortales, quos (proh dolor) urget habendi
Tantus amor, domibus domus, arvis additur arvum,
Monticulus monti, maribus mare, ſique poteſſint
Addiderint mundum mundo, ſuaque omnia dixint.
In Engliſh thus;
Then would not mortall men ſo farre ingag'd in love to have
(A death it is to think) houſe to houſe, and land to land to lay,
Hillock to hill, ſea unto ſea, to adde they crave,
And if they could, world unto world, and all their own would ſay.

Again, they ſpread not their gins and nets to entrap and deceive good Creatures, and ſuch as ſerve for mans uſe and benefit, but for Waſps, Horſe-flies, or Gad-bees, and Brimſees, or Oxe-flies, that in Summer-time vexe Cattle, for Drones Gnats, and other Flies, which to us are like to Theeves, Paraſites, Bawds, Panders, and ſuch Merchants that bring whores and knaves together, being *Telluris inutile pondus*, an unprofitable burthen of the earth, ſerving to no good uſe. And beſides, being a vermin of ſingular and incomparable courage, ſhe dare adventure to give the onſet upon thoſe young Serpents that are called *Lizards*, who if they offer to contend and ſtrive againſt her fury, ſhe quickly enclaſpeth them round about, and very nimbly and eagerly ſeizeth upon both their lips, biting and holding them together ſo faſt, that ſhe never giveth over till they be dead: and at length having vanquiſhed her enemies, ſhe like another *Cacus* carrieth them into her Cave, or ſome ſecret corner.

Now if it happen in this hot bickering, that the nets be either broken, intangled, or platted together, by and by without further delay ſhe falls to mending what was amiſſe, to unwinde, ſpread open, and to ſet them again in due order and frame very ingeniouſly. What ſay you to this? That the Spider beareth a deadly feud and mortall hatred to Serpents: for if ſo be the Serpent at any time lie in the ſhadow under any tree to cool himſelf, where Spiders do reſort, ſome one of them levelleth directly at him, deſcending down perpendicularly to the Serpents head, and with ſuch a violence ſtriketh and daſheth at his head with her beak or ſnout, that her enemy withall making a whizzing noyſe, and being driven into a giddineſſe, turning round, hiſſeth, being neither able to break aſunder the thred that cometh from above, nor yet hath force enough to eſcape it. Neither is this ſpectacle or pageant ended, untill this our champion with her battering, hath ſent her life to *Pluto*, the God of Hell for a preſent. Let men therefore be ſilent, and ceaſe wondering at the amphitheatricall fights of the *Romans*, which were made with ſeats and ſcaffolds to behold Playes and fights, and where were preſented to the Spectators the bloudy fights of Elephants, Bears, and Lions, ſithence a ſmall Spider dare challenge to the field, and fight hand to hand with a black and blew Serpent, and not only to come down to him in daring wiſe, but alſo victoriouſly to triumph over him, entirely poſſeſſing all the ſpoyl. Who would not marvail that in ſo ſmall, or in a manner no body at all, which hath neither bones, nor ſinnewes, nor fleſh, nor ſcarce any skin, there could be ſo great force, ſuch incredible audacity and courage, ſuch ſharp and hard bitings, and invincible fury? Surely we muſt conclude neceſſarily, that this cannot proceed altogether from their valiant ſtomacks, but rather from GOD himſelf: In like ſort, they dare buckle with Toads of all ſorts, both of the land and water, and in a ſingular combate overthrow and deſtroy them, which thing not only *Pliny* and *Albertus* do recite and ſet down for a certain truth, but *Eraſmus* alſo in his Dialogue entituled *De Amicitia*, maketh mention of, reporting how a certain Monk lying faſt aſleep, on whoſe mouth a foul Toad ſate, and yet by the Spiders means was freed from all hurt. Yea, they dare enter the combat with winged and ſtinged Hornets, having not ſoft but ſtiffe bodies, and almoſt as hard as horn, who although ſhe many times breaketh through their Cobwebs with main ſtrength (as rich men undoe and make a way through Lawes with Gold, and by that means many times ſcape ſcot-free) yet for all that, at length being over-maſtered, hand to hand in ſingle combat, and intangled and inſnarled with the binding paſtineſſe, and tenacious glewiſh ſubſtance of the Web, ſhe payeth a deer price for her breaking into anothers houſe and poſſeſſion, yeelding at length to the Spiders mercy.

I will not omit their temperance, a vertue in former ages proper only to men, but now it ſhould ſeem peculiar to Spiders. For who almoſt is there found (if age and ſtrength permit) that contenteth himſelf with the love of one as he ought, but rather applyeth his minde, body, and wandering affections to ſtrange loves? But yet Spiders ſo ſoon as they grow to ripeneſſe of age, do chooſe them Mates, never parting till death it ſelf make the ſeparation. And as they cannot abide Corrivalls, if any Wedlock-breakers, and Cuckold-makers dare be ſo ſnappiſh to enter, or ſo inſolently proud as to preſſe into anothers houſe or Cottage, they reward him juſtly with condigne puniſhment for his temerarious enterprize, and flagitious fact: Firſt by their cruell bitings, then with baniſhment or exile, and oftentimes with death it ſelf. So that there is not any one of them, that dare offer villany or violence to anothers Mate, or ſeek by any means unlawfully to abuſe her. There is ſuch reſtraint, ſuch ſtrict orders, ſuch faithfull dealing, uprightneſſe of conſcience, and Turtle love amongſt them. Further, if you look into their houſe-keeping, you ſhall finde there is nothing more frugall then a Spider, more laborious, cleanly, and fine. For ſhe cannot abide that even the leaſt end or piece of her thred to be loſt, or to be placed and ſet to no uſe or profit, and they eaſe and relieve themſelves by ſubſtitutes, that ſupply their rooms and take pains for them: for whileſt the Female weaveth, the Male applyeth himſelf to hunting, if either of them fall ſick and be weak, then one of them doth the work of both, that their merits and deſerts may be alike. So ſometimes the Female hunteth whileſt the Male is buſie about Net-making, if the one ſtand in need of the others help and furtherance.

But yet commonly the Female-Spider being inſtructed of her Parents when ſhe was young and docible, the art of ſpinning and weaving (which cuſtome was amongſt us alſo in times paſt) beginneth the Cobweb, and her belly is ſufficient to miniſter matter enough for ſuch a piece of work, whether it be that the nature or ſubſtance of the belly groweth to corruption at ſun-ſet and appointed time (as *Democritus* thought) or whether there be within them a certain lanigerous fertility naturally as in Silk-worms. *Ariſtotle* is of opinion, that the matter is outward as it were a certain Shell or pill, and that it is unwound, looſened, and drawn out by their fine weaving and ſpinning. But howſoever it be, certain it is, they will not by their good wills loſe the leaſt jot of a threds end, but very providently ſee to all though never ſo little. The love they bear to their young breed is ſingular, both in the care they have for their faſhioning and framing to good orders, and for their education otherwiſe, for the avoidance of idleneſſe. For the Male and Female do by turns ſit upon their Egges, and ſo by this way interchangeably taking courſes, they do ſtirre up, quicken, move and encreaſe naturall and lively heat in them, and although it hath been ſundry times obſerved, that they have brought forth three hundred young ones at once, yet do they train them up all alike without exception, to labour, parſimony, and pains-taking, and inure them in good order, to faſhion and frame all things fit for the weaving craft. I have often wondred at their cleanlineſſe, when to keep all things from naſtineſſe or ſtinking, I have beheld with mine eyes thoſe that were lean, ill-favoured, and ſickly, to come glyding down from the upper to the lower part of their buildings, and there to exonerate nature at ſome hole in the Web, leſt either their ſhop, work-houſe, or frame might be diſtained or annoyed. And this is ſufficient to have ſpoken of their politicall, civil, and domeſticall vertues: Now will I proceed to diſcourſe of their skill in weaving, wherewith *Pallas* was ſo much offended: for the Scholar excelled her Miſtres, and in fine, cunning, and curious workmanſhip, did farre ſurpaſſe hers. Firſt then let us conſider the matter of the Web, whoſe ſubſtance is tough, binding, and glutinous, pliant, and will ſtick to ones fingers, like Bird-lime, and of ſuch a matter it is compounded, as it neither loſeth his clammineſſe and faſt-holding quality, either by ſiccity or moyſture.

The matter whereof it is made, is ſuch as can never be conſumed, waſted, or ſpent, whileſt they live, and being ſo endleſſe, we muſt needs here admire and honour the never ending and infinite power of the great God: for to ſeek out ſome naturall reaſon for it, or to aſcribe it to naturall cauſes, were in my minde meer madneſſe and folly. The Autumnall Spiders, called *Lupi* or *Holci*, Wolves or Hunters, are thought to be the moſt artificiall and ingenious: For theſe draw out a thred finer and thinner then any Silk, and of ſuch a ſubtilty, that their whole Web being folded together, will ſcarce be ſo heavy as one fine thred of Linnen being weighed together. *Edovardus Monimius* hath very finely and eloquently deſcribed both the Males and Females, *Heptam. lib.* 7. in theſe words following;

——Ille domum venatu paſcit, at iſta
Mœonio graciles orditur tegmine telas.
Stanniparus venter, vomifilus lanifer, ipſi
Palladiam cumulatque colum, calatoſque miniſtrat.
Ipſius eſt fuſum pondus, quod fila trahendo
Nectit & intorquet parili ſub tegmine ducta.
Illa ſuam à mediis orditur Dædala telam,
Et gracili tenues intendit ſtamine tractus.
Tela jugo juncta eſt, ſtamen ſecernit arundo,
Inſeritur medium radiis ſubtegmen acutis,
Atque oram à centro panum ſibi ſtaminat illam,
Pervia tela patet gemina de parte, feroci
Ne concuſſa euro frangantur ſtamina, quoque
Muſca volax tenui ſtretur ſinuamine caſſis,
Reticuli primam vix muſcula contigit oram.
Mors abit in tela centrum, ut diſcrimine parvo
Vinciat ipſe ſuo peregrinam caſſe volucrem.

Which may be Engliſhed thus;

The Spider-male by hunting game the houſes charge doth feed,
The female with Mœonian art begins to ſpin fine thred,
Out of Web-breeding belly, breaſt woolly, upcaſting twine,
Whereto the diſtaffe ſhe applyes by art of Pallas fine:
To her belongs the preſſed weight, which doth the teal out-draw,
Both matter, art, and ſubſtance, ſhe doth ſhield by natures Law.
Like Dædala out of her middeſt, her web ſhe doth begin,
And ſtretching out her tender worke, by preſſing it full thin:

The which is joyned as in yoke, yet parted by a cane,
And planted is the middle roof in a ſharp beamy frame.
And from the Center draweth a thred like wooll to lye upon,
While double work on every part doth fortifie her wone:
Wherewith the blaſts of Eaſtern winde unbroken web reſiſts,
And tender fly inſnarled, is fallen into thoſe liſts.
While ſcarce upon the edge or brim this little Flie doth fall,
But by and by death ſeizeth her within webs center thrall:
And ſo the ſtranger winged Flie with little or no adoe,
She overcometh ſpeedily when it the nets comes to.

Of theſe Cobwebs there is great diverſity, variety and difference: for ſome of them are looſe, weak, ſlack, and not well bound: other contrary-wiſe well compacted, and cloſe couched together, ſome triangular, otherſome quadrangular; and ſome are made with all ſides equall, but yet not right angled or cornered like a quarry of Glaſſe; others are made of ſuch a form as will beſt fit the place where they hunt, you ſhall perceive ſome of them to be orbicular, if they weave between two trees, and you ſhall finde this faſhion alſo among weeds, and oftentimes in Windowes hanging together with many lines and different croſſe pieces: ſo that herein no man can deny but that they ſhew forth great reaſon, wiſdome, admirable judgement, and much gallant beauty worthy to ſee to.

Surely *Euclides* that famous Geometrician, who was Scholar to *Socrates*, and lived in the time of *Ptolemy* the firſt, need not be aſhamed to learn from Spiders the drawing of divers of his figures and Geometricall proportions. And Fiſher-men alſo from them have been glad to learn the trade of Net-making. For from whom elſe could they borrow and fetch ſuch lively repreſentations, and ſuch expreſſe patterns, then from ſuch a skilfull and induſtrious School-maſter. But the ſtrength of the web ſeemeth to be very ſtrange, which although it ſeemeth to be the moſt weak of all other things, yet we ſee it is able to hold Hornets, and to endure the furious blaſts of raging windes, and if one throw or caſt duſt upon it, the ſame will rather be diſtended and ſtretched, then either undone, broken, or felled down.

And yet this is the ſtrangeſt of all, which many a man would think impoſſible but that it cannot be called in queſtion, in regard we may daily ſee and obſerve the proof thereof cometh to paſſe, that a Spider ſhould begin to place the one end of her thred on the one ſide of a little River or Brook, and how ſhe ſhould faſten the other end on the other ſide of the water, conſidering that Nature never taught them the art either of flying or ſwimming. I would fain be reſolved of this ſcruple, by what means they ſayl and paſſe over. Or do you imagine that they jump over, or convey themſelves over in a leap? Surely I dare not ſay ſo, I much doubt thereof, I will not ſtand to it.

The next that beſt deſerveth to be marſhalled in the ſecond rank and place, for cunning work in weaving and ſpinning, be thoſe kinde of Spiders who build and labour about the rafters of Houſes, in Cellars, floors, and about boards, planks, and ſuch like, and of theſe ſome are wilder, which do faſhion and dreſſe a broad, thick, and plain web in the graſſe and fields all about, ſtretching out the ſame like a ſayl, or ſome fine ſpread Sheet or Curtain.

If you would duely look into their work, and throughly conſider the ſtrange trydles of their Looms, the Shittles they uſe, their Combes to make all clean, the ſtay of their Looms wherewith they dreſſe their Webs, their Croſſe-lines, the frame, Wouf, their fine ſpinning-ſtuffe, and ſo their whole Cobwebs, you ſhall therein very plainly behold the finger of God working in his poor and weak Creatures. And queſtionleſſe in this excellent myſtery they are able to put down, and farre ſurmount the *Egyptians*, the *Lydians*, *Penelope*, *Tanaquil* (who was Wife to *Tarquinius Priſcus*) *Ameſtris* that famous Queen of *Perſia*, *Claudiana*, *Sabina*, and *Julia*, Noble *Roman* Ladies, and all the Queens of *Macedonia*, who were eſteemed and renowned throughout the whole world, to be the moſt curious and exquiſite in this kinde of faculty, and who in needle-work, Tapeſtry, and all Embroydery, were thought to be Peerleſſe. For theſe Spiders (even contrary to all reaſon and Art, as we think) make a firm, ſtrong, and well compacted Web with no lines or threds drawn croſſe-wiſe or overthwart, but only made out and continued ſtill in length. When their work is perfected and brought to an end, they lay over it and cover it round about with a certain glutinous kinde of Jelly, or ſlimed juice, by touching of which their prey being entangled, pay full deerly for their ignorant raſhneſſe, unadviſed heed-taking, and lack of fore-ſight. Their Web is of the colour of the air, or rather none at all, which eaſily deceiveth the fooliſh unwary Flies, and ſuch as be quick-ſighted, circumſpect, and can eſpy things very quickly. For if it did repreſent any notorious and manifeſt colour, they would provide in time againſt ſuch dangerous deviſes, and take heed of ſuch traps aforehand.

The baſer and vilder ſort of Spiders, and ſuch as be leaſt reputed of, are thoſe that live in holes, Caves, and corners of Houſes, and theſe in reſpect of the former are ſlow, ſlothfull, and lazy, fat, groſſe, and big-bellyed corner-creepers, and theſe ſpin a very homely, rough, and courſe thred, which they ſpread abroad, and ſet before the hollow places and chinks of Walls. Theſe kindes of Spiders have a more heavy and ponderous body, ſhorter feet, and more unhandſome to work or finiſh any Webbes in their Looms, and as for ſeparating, dividing, picking, carding, or ſuting their ſtuffe, they are very Bunglers to the firſt mentioned.

They apprehend and take their preyes rather caſually, then take any great pains to ſeek farre for it, becauſe their hoſe being great outwardly, ſeemeth to be a good and convenient lurking-corner, and a ſafe corner for Flies to hide themſelves in: but being entangled and arreſted in the very entry, they are ſnatched up ſuddenly by the watchfull Spider, and carryed away into the more inward places of their dens, there to be ſlaughtered. For they watch and ward aloft in high walls and buildings, as well to deceive ſuch Birds as lye in wait to intrap and take them at unawares, (as Sparrowes, Robin-red-breaſts, Wrens, Nightingales, and Hedge-Sparrowes, which are all ſworn enemies to Spiders: and beſides, the more eaſily to beguile the ſilly flies ſuſpecting no harm at all.

There be certain other ſorts of Spiders, which as yet I have not deſcribed: as for example; there is one (the greateſt of all that ever I ſaw) which ſpreadeth her artificiall nets in the Harveſt-time amongſt the leaves and branches of Roſes, and entangleth either any other little Spider that is running away, or elſe Gnat-flies, and ſuch like, being caught at unawares, and hanged by a kinde of thred, whom ſhe firſt purſueth and layeth hold on with a wonderfull dexterity and quickneſſe: and being faſt hanged, and ſo made ſure, ſhe there leaveth them, for the ſatisfying of her hungry appetite till another time. The body of this Spider is in colour ſomewhat whitiſh, reſembling ſcumme or frothy fome, and almoſt of an Oval-figure, the head very little, placed under her belly, being withall crooked or bending like hooks, as is to be ſeen in the Crab-fiſh, and her back garniſhed with many white ſpots.

This is one kinde of *Autumnall Lupi*, or Wolf-Spider, which in a very ſhort ſpace of time do grow from the bigneſſe of a little Peaſe, to a very great bulk and thickneſſe. There are alſo found in all places of this Countrey, long-legged Spiders, who make a very homely and diſorderly Web. This kinde of Spider liveth altogether in the fields, her body is almoſt of a round figure, and ſomewhat browniſh in colour, living in the graſſe, and delighting in the company of Sheep: and for this cauſe I take it, that we *Engliſh* men do call her a Shepheard, either for that ſhe keepeth and loveth to be among their flocks, or becauſe that Shepheards have thought thoſe grounds and feedings to be very wholeſome wherein they are moſt found, and that no venemous or hurtfull creature abideth in thoſe fields where they be: And herein their judgement is to be liked, for they are indeed altogether unhurtfull, whether inwardly taken, or otherwiſe outwardly applyed; and therefore becauſe I am tyed within a Teather, and thereby reſtrained from all affectionate diſcourſing or dilating unleſſe of poyſonous and harmfull Creatures, I will come into my path again, and tell you of another certain black Spider, that hath very ſhort feet, carrying about with her an Egge as white as Snow under her belly, and running very ſwiftly: the Egge being broken, many Spiders creep forth, which go forth with their dam to ſeek their living al together, and climbing upon her back when night approacheth, there they reſt, and ſo they lodge.

In rotten and hollow trees there are alſo to be found exceeding black Spiders, having great bodies, ſhort feet, and keeping together with Cheeſelips or thoſe creeping vermine with many feet, called of ſome *Sowes*. We have ſeen alſo (ſaith the learned *Geſner*) Spiders that were white all over, of a round compact and well knit body, ſomewhat broad, living in the flowers of Mountain *Parſely*, amongſt Roſes, and in the green graſſe: their Egges were little, ſlender, and very long, their mouth ſpeckled, and both their ſides were marked with a red line running all alongeſt. He took them to be very venemous, becauſe he ſaw a Marmoſet or Munkey to eat of them, and by eating thereof hardly to eſcape with life, yet at length it did well again, and was freed from further danger, only by powring down a great deal of Oyl into his throat. I my ſelf have alſo ſeen ſome Spiders with very long bodies and ſharp tayls, of a blackiſh or dark red colour, and I have noted other-ſome again to be all over the body green-coloured. I will not deny but that there are many other ſorts of Spiders, and of many more different colours, but I never read, or yet ever ſaw them: *Neque enim noſtra fert omnia tellus*, The ages enſuing peradventure will finde more.

I will only put you in remembrance of this one thing worthy to be obſerved, that all weaving and Net-making Spiders, according as they grow in years, ſo do they acquire more knowledge, and attain to greater cunning and experience in their ſpinning trade: but carrying a reſolute and ready will to keep both time and meaſure with that Muſick which beſt contents moſt ears, I will now paſs to ſpeak of the propagation and uſe of Spiders, and ſo I will cloſe up this diſcourſe.

The propagation of Spiders for the moſt part is by coupling together, the deſire and action whereof continueth almoſt the whole Spring-time, for at that time by a mutuall and often drawing, and eaſie pulling of their Web, they do as it were wooe one another, then approach they neerer together, and laſtly are joyned with their hippes one againſt another backwards as Camels do, for that is the moſt fit for them, in regard of the round proportion and figure of their bodies. In like ſort do the *Phalangies* joyn together, and are generated by thoſe of the ſame kinde, (as *Ariſtotle* ſaith:) But the *Phalangies* couple not in the Spring-ſeaſon, as the other Spiders doe, but towards Winter, at what time they are very ſwift, quick, nimble, and of moſt certain hurt, more dangerous, and more venemous in their bitings. Some of them after their coupling together, do lay one Egge only, carrying it under their belly, it is in colour as white as Snow, and both Male and Female ſit upon it by turns.

Some Spiders do exclude many little Egges very like unto the ſeeds of Poppy, out of which it hath been obſerved, that ſometimes there have been hatched three hundred Spiders at one time, which after their vain and idle plying and ſporting together in their web, at length come forth with their Dam, and towards evening they all trudge home, until each one hath learned, and perfectly attained to the skill to ſpin his own web, that therein he may ſpend the reſidue of his days in more pleaſure, eaſe and ſecurity. They make excluſion of their young breed in hopping or skipping-wiſe, they ſit on their Egges for three days ſpace together, and in a moneths ſpace their young ones come to perfection. The domeſtical or Houſe-ſpider, layeth her egges in a thin web, and the wilde-ſpider in a thicker and ſtronger, becauſe they are more expoſed to the injuries of windes, and lie more open to the rage and fury of ſtorms and ſhowers.

The place and Countrey where they are, helpeth much, and is very available to their generation. There is no Countrey almoſt, but there are many Spiders in it. For in the Countrey about *Arrba*, which is in *Arabia fœlix*, there is an infinite number of them to be found, and all the Iſland of *Candie* ſwarmeth with *Phalangies*. *Strabo* ſaith, that in *Ethiopia* there be a great number of *Phalangies* found, of an exceeding bigneſſe: although as *Pliny* ſaith in his eight Book and 58 chapter, there are neither Wolfs, Foxes, Bears, nor no hurtful creature in it: and yet we all know that in the Iſle of *Wight* (a member of *England*,) the contrary is to be found, for although there were never dwelling in it Foxes, Bears, nor Wolfs, yet there be Spiders enow.

The Kingdom of *Ireland* never ſaw Spiders, and in *England* no *Phalangies* will live long, nor yet in the Iſle of *Man*, and neer unto the City of *Grenoble*, in that part of *France* which lyeth next *Italy*, *Gaudentius Merula* ſaith, there is an old Tower or Caſtle ſtanding, wherein as yet never any Spider hath been ſeen, nor yet any other venomous creeping creature, but rather if any be brought thither from ſome other place, they forthwith die. Our Spiders in *England*, are not ſo venomous as in other parts of the world, and I have ſeen a mad man eat many of them, without either death or deaths harm, or any other manifeſt accident or alteration to enſue. And although I will not deny, but that many of our Spiders being ſwallowed down, may do much hurt, yet notwithſtanding we cannot chuſe but confeſſe, that their biting is poyſonleſſe, as being without venom, procuring not the leaſt touch of hurt at all to any one whatſoever; and on the contrary, the biting of a *Phalangie* is deadly.

We ſee the harmleſſe Spiders almoſt in every place, they climb up into the Courts of mighty Kings, to be as it were myrrors and glaſſes of vertue, and to teach them honeſt proweſſe and valiancy. They go into the lodgings, ſhops and Ware-houſes of poor men, to commend unto them contentment, patience, labour, tolerance, induſtry, poverty and frugality. They are alſo to be found in rich mens chambers, to admoniſh them of their duties. If you enter into your Orchard, they are buſie in clothing every Tree; if into the Garden, you ſhall finde them amongſt Roſes; if you travail into the field, you ſhall have them at their work in hedges, both at home and abroad, whitherſoever you bend your courſe, you cannot chuſe but meet with them, leſt perhaps you might imagine, or elſe complain and finde ſome faults, that the Schoolmiſtreſſe and perfect preſident of all vertue and diligence were in any place abſent.

Who would not therefore be touched, yea and poſſeſſed with an extream wonder at theſe vertues and faculties, which we daily ſee and behold with our eyes. *Philes* hath briefly and compendiouſly deſcribed their nature, properties, inclinations, wit and invention in his *Greek* verſes, which being turned into *Latine*, found to this effect.

Araneis natura per quam induſtria eſt,
Vincens puellarum manus argutias.
Nam ventris humores ſupervacaneos
Ceu fila nent, textoris abſque pectine
Et implicantes orbium volumina,
Adverſa ſublegunt iis ſubtegmina:
Sed liciis hinc denſioribus plagas
In aëre appendunt, nec unde conſpicor
Sejuncta cùm ſit omnis a medio baſis
Que fulciat mirabilem operis fabricam.
Et ſtaminum fallit ligamen lumina
Subtilitatis ſub dio diſcrimine.
Firmatur autem denſitas ſubtegminis,
Raras in ambientis oras aëris.
Muſcis, culicibus, & id genus volantibus
Intenſa nectens fraudulenter retia.
Quod incidit, jejuna paſcit hoc famem,
Vitamq; degit haud quietis indigam.
Suſpenſa centro, caſſibuſque providens,
Ne fila rumpat, orbiumque diſſuat
Nexus retortos flaminis vis irruens.

Which may be Engliſhed thus;

Induſtrious nature Spiders have,
Excelling Virgins hands of skill,
Superfluous humors of bellies ſave,
And into webs they weave them ſtill,
And that without all Weavers combes
Their folding orbes inrolled are,
And underneath their woofs as tombes,
Are ſpread the worthy work to bear,
And hang their threads in air above,
By plagues unſeen to the eye of man,
Without foundation you may prove
All their buildings firmly ſtand:
Nor yet clear light to the eyes moſt bright
Can ſee the coupling of their thread,
The thinneſſe of the woof in ſight,
On pins of air are ſureſt ſpread.
On Gnats and ſilly winged Flies,
Which guilefully in nets they take,
They feed their fill when they eſpy,
And yet their life much reſt doth make.
They labour too, and do provide
Gainſt windes and things that break their twails,
That bands from tacklings may not ſlide,
When greater ſtrength doth them aſſail.

And although *Minerva* hath nick-named the Spider, calling her malepert, ſhameleſſe, and ſawcie; *Martiall*, wandring, ſtraying and gadding; *Claudianus*, raſh, preſumptuous, and adventurous; *Politianus*, hanging and thick; *Juvenal*, dry; *Propertius*, rotten; *Virgil*, light; and *Plautus*, unprofitable and good for nothing: yet it is clear, that they were made to ſerve and ſtead us to many excellent uſes: ſo that you may plainly gather and perceive, that this is rather an amplification, then any poſitive or meaſured truth, concerning the fond Epithets, vile badges and liveries, which theſe rehearſed Authors have unworthily beſtowed on them, as by that which followeth may plainly be ſeen.

Their uſe.

The Spider put into a linnen clowt, and hung upon the left arm, is an excellent medicine to expel a Quotidian Ague, as *Trallianus* ſaith: and yet it will be more effectual if many Spiders be boyled with Oyl of Bay to the conſiſtence of a liniment, to anoynt the wriſts and the temples a little before the fit; for by this means the Feaver will be abſolutely cured, or will ſeldom return again. *Kiranides.* A Spider tempered and wrought up with Milt-waſt or *Ceterach*, and ſo ſpred upon a clothto be applyed to the temples, cureth the fits of a Tertian Feaver. *Dioſcorides.* The Spider that is called a Wolf, being put into a quill, and ſo hanged about the neck performeth the ſame effect, as *Pliny* reporteth. The domeſtical Spider, which ſpinneth and weaveth a thin, a white, or a thick web, being incloſed in a piece of leather, or a Nut-ſhel, and ſo hanged about the neck, or worn about the arm, driveth away the fits of a Quartain Feaver, as both *Dioſcorides* and *Fernelus* have thought. For the pain in the ears, Take three live Spiders, boyl them with Oyl upon the fire, then diſtil or drop a little of this Oyl into the pained ear, for it is very excellent, as witneſſeth *Marcellus Empiricus*. *Pliny* ſteepeth them in Vinegar and Oyl of Roſes, and ſo to be ſtamped together, and a little thereof to be dropped into the pained ear with a little Saffron, and without doubt, ſaith he, the pain will be mitigated, and the ſame affirmeth *Dioſcorides*. Or elſe ſtrain out the juyce of Spiders, mixing it with the juyce of Roſes, and with ſome wooll dipped in the ſame liquor, apply it to the ear.

Soraſtus in his Book *peri Dakeon* writeth, how that the Spider which is called *Cranocalaptes*, being ſtifled or choked in Oyl, is a very preſent help againſt any poiſon taken inwardly into the body, as the Scholiaſt of *Nicander* reporteth. There be ſome that catch a Spider in the left hand, and beat and ſtamp it with the Oyl of Roſes, putting ſome of it into the ear, on the ſame ſide the tooth aketh, and as *Pliny* telleth us, it doth exceeding much good. Spiders applyed and laid upon their own bitings, or taken inwardly into the body, do heal and help thoſe hurts themſelves procured.

What ſhould I talke of the white ſpots of the eyes, a moſt dangerous grief? and yet are they clean taken away with very ſmall labour, if ſo be one take the legs, eſpecially of thoſe Spiders which are of the whiter ſort, and ſtamping them together with Oyl, do make an Ointment for the eys. *Pliny.* The moiſt juyce that is ſqueeſed out of a houſe Spider, being tempered with Oyl of Roſes, or one dram of Saffron, and a drop or two thereof dropped into the eyes, cureth the dropping or watering of them, by means of a rhume iſſuing out thereat: or elſe the moiſture of a Spider or his urine being taken by themſelves, laying a little wooll on the top of the part affected, worketh the ſame effect; whereby you may well underſtand, that there is nothing in a Spider ſo vile, homely, or ſordidous, that doth not ſome good, and ſerveth to ſome end.

Againſt the ſuffocation of the belly, *Aetius* doth counſel to apply a *Cerote* to the navel made of Spiders, and ſaith that he hath found it to prevail much in this kinde of paſſion. *Pliny* ſaith, but he yeeldeth no reaſon for it, that Spiders help the pain and ſwelling of the Spleen. He writeth alſo further, that if a man catch a Spider, as ſhe is gliding and deſcending downwards by her thread, and ſo being cruſhed in the hand, and then applyed to the navel, that the belly wil be provoked to the ſtool, but being taken as ſhe is aſcending, and applyed after the ſame former manner, that any looſeneſſe or flux is ſtayed, and reſtrained thereby. The ſame *Pliny* alſo writeth, that if a man take a Spider, and lay it upon a Fellon, (provided that the ſick patient may not know ſo much,) that within the ſpace only of three days, that terrible and painful grief will be clean taken away. And beſides he affirmeth that if the head and feet of a Spider be caſt away, and the reſt of the body rubbed and bruiſed, that it will throughly remedy the ſwelling in the fundament, proceeding of inflamation.

If any be vexed with ſtore of Lice, and do uſe a ſuffumigation made only with Spiders, it will cauſe them all to fall and come away, neither will there afterwards any moe breed in that place. The fat of a Gooſe tempered and mixed with a Spider and Oyl of Roſes together, being uſed as an Ointment upon the breaſts, preſerveth them ſafely, as that no milk will coagulate or curdle in them after any birth. *Anonymus.* Yea, that ſame knotty ſcourge of rich men, and the ſcorn of Phyſitians, I mean the Gowt, which as ſome learned men hold can by no means be remedied, yet feeleth mitigation and diminution of pain, and curation alſo, only by the preſence of a Spider, if it be taken alive, and her hinder-legs cut off, and afterward incloſed in a purſe made of the hide of a Stag. Moreover, we ſee, (which all other medicines can never do) that all they are freed for the moſt part, both from the Gowt in the legs and hands, where the Spiders are moſt found, and where they are moſt buſie in working, and framing their ingenious deviſed webs. Doubtleſſe, this is a rare miracle of nature, and a wonderful vertue, that is in this contemptible little creature, or rather eſteemed to be ſo vile, abject, and of no eſtimation. Rich men were happy indeed, if they knew how to make uſe of their own good.

Antonius Pius was wont to ſay, that the ſharp words, witty ſayings, quirks and ſubtilties of Sophiſters, were like unto Spiders webs, that contain in them much cunning Art, and artificial conceit, but had little other good beſides. If any one be newly and dangerouſly wounded, and that the miſerable party feareth a bleeding to death, what is a more noble medicine, or more ready at hand, then a thick Spiders web, to binde hard upon the wound, to ſtay the inordinate effuſion of bloud? Queſtionleſſe, if we were as diligent and greedy to ſearch out the true properties and vertues of our own domeſtical remedies, which we would buy of others ſo dearly, we would not enforce our ſelves with ſuch eager purſuit after thoſe of forain Countries, as though things fetcht far off, were better then our own neer at hand; or as though nothing were good and wholeſome, unleſſe it came from *Egypt*, *Arabia*, or *India*. Surely, unleſſe there were ſome wilde worm in our brains, or that we were bewitched and poſſeſſed with ſome fury, we would not ſo far be in love with forein wares, or be ſo much beſotted, as to ſeek for greedy new phyſick and Phyſical means, conſidering that one poor Spiders web will do more good, for the ſtanching of bloud, the curation of ulcers, the hindering of ſanies, ſlime, or ſlough to grow in any ſore, to abate and quench any inflamations, to conglutinate and conſolidate wounds, more then a Cart-load of Bole fetcht out of *Armenia*, *Sarcocolla*, *Sandaracha*, or that earth which is ſo much nobilitated by the impreſſe of a ſeal, and therefore called *Terra Sigillata*, the clay of *Samos*, the dirt of *Germany*, or the loam of *Lemnos*. For a cobweb adſtringeth, refrigerateth, ſoldereth, joyneth, and cloſeth up wounds, not ſuffering any rotten or filthy matter to remain long in them.

And in regard of theſe excellent vertues and qualities, it quickly cureth bleeding at the noſe, the Hæmorrhoids, and other Bloudy-fluxes, whether of the opening of the mouths of the veins, their opertions, breakings, or any other bloudy evacuation that too much aboundeth, being either given by it ſelf alone in ſome Wine, either inwardly or outwardly, or commixed with the Bloud-ſtone, *Crocus Martis*, and other the like remedies fit for the ſame intentions.

The cobweb is alſo an ingredient into an unguent which is made by Phyſitians, againſt the diſeaſe called *Serpego*, and being bound to the ſwellings of the fundament, if there be inflamation joyned withall, it conſumeth them without any pain, as *Marcellus Empiricus* teſtifieth. It likewiſe cureth the watering or dropping of the eyes, as *Pliny* reporteth, and being applyed with Oyl, it conſolidateth the wounds of the joints: and ſome for the ſame intent, uſe the aſhes of cobwebs, with fine meal and white Wine mixed together.

Some Chirurgeons there be that cure Warts in this manner; They take a Spiders web, rolling the ſame up on a round heap like a ball, and laying it upon the Wart they then ſet fire on it, and ſo burn it to aſhes, and by this way and order the Warts are eradicated, that they never after grow again. *Marcellus Empiricus* taketh Spiders webs that are found in the Cypreſſe tree, mixing them with other convenient remedies, ſo giving them to a podagrical perſon for the aſſwaging of his pain. Againſt the pain of a hollow tooth, *Galen* in his firſt Book *De Compoſ: medicam. ſecundum loca*, much commendeth, (by teſtimony of *Archigenes*) the Egges of Spiders, being tempered and mixed with *Oleum Nardinum*, and ſo a little of it being put into the tooth. In like ſort *Kiramides* giveth Spiders egges for the curation of a Tertian Ague. Whereupon we conclude with *Galen*, in his Book to *Piſo*, that Nature as yet never brought forth any thing ſo vile, mean, and contemptible in outward ſhew, but that it hath manifold and moſt excellent and neceſſary uſes, if we would ſhew a greater diligence, and not be ſo ſqueamiſh as to refuſe thoſe wholeſome medicines which are eaſie to be had, and without great charges and travail acquired.

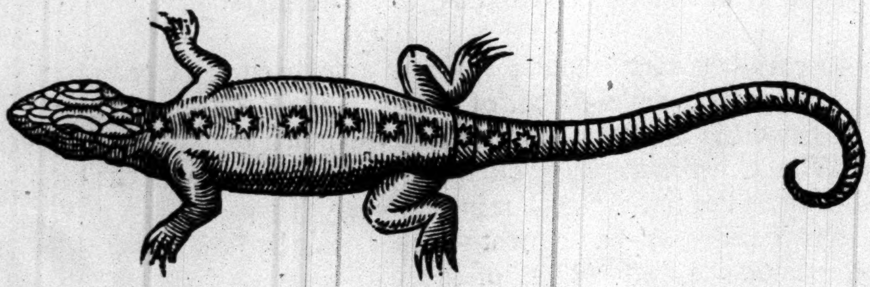
I will add therefore this one note before I end this diſcourſe, that Apes, Marmoſets or Monkies, the Serpents called Lizards, the Stellion, which is likewiſe a venomous Beaſt like unto a Lizard, having ſpots in his neck like unto ſtars. Waſps, and the little beaſt called Ichneumon, Swallows, Sparrows, the little Titmouſe, and Hedge-ſparrows, do often feed full ſavourly upon Spiders. Beſides, if the Nightingale, (the Prince of all ſinging Birds) do eat any Spiders, ſhe is clean freed and healed of all diſeaſes whatſoever.

In the days of *Alexander* the Great, there dwelled in the City of *Alexandria* a certain young maid, which from her youth up, was fed and nouriſhed only with eating of Spiders, and for the ſame cauſe the King was premoniſhed not to come neer her, leſt peradventure he might be infected by her poyſonous breath, or by the venom evaporated by her ſweating. *Albertus* likewiſe hath recorded in his writings, that there was a certain noble young Virgin dwelling at *Colen* in *Germany*, who from her tender years was fed only with Spiders. And thus much we Engliſh men have known, that there was one *Henry Lilgrave*, living not many years ſince, being Clerk of the Kitchen to the right Noble *Ambroſe Dudley* Earl of Warwick, who would ſearch every corner for Spiders, and if a man had brought him thirty or forty at one time, he would have eaten them all up very greedily, ſuch was his deſirous longing after them.

Of the STELLION.

THey are much deceived that confound the green Lizard, or any other vulgar Lizard, for becauſe the Stellion hath a ruſtie colour: and yet (as *Matthiolus* writeth) ſeeing *Ariſtotle* hath left recorded, that there are venomous Stellions in *Italy*, he thinketh that the little white Beaſt with ſtars on the back, found about the City of *Rome*, in the walls and ruines of old houſes, and is there called *Tarantula*, is the Stellion of which he ſpeaketh, and there it liveth upon Spiders. Yet that there is another and more noble kinde of Stellion, anciently ſo called of the learned, ſhall afterward appear in the ſucceeding diſcourſe.

This Beaſt or Serpent is called by the *Grecians*, *Colottes*, *Aſcalobtes*, and *Galeotes*, and ſuch a one was that which *Ariſtophanes* faigneth from the ſide of a houſe eaſed her belly into the mouth of *Socrates* as he gaped, when in a Moon-ſhine night he obſerved the courſe of the ſtars, and motion of the Moon. The reaſon of this *Greek* name *Aſcalabotes*, is taken from *Aſcalos*, a circle, becauſe it appeareth on the back full of ſuch circles like ſtars, as writeth *Perottus*. Howbeit, that ſeemeth to be a faigned Etymologie, and therefore I rather take it, that *Aſcala* ſignifieth impurity, and that by reaſon of the uncleanneſſe of this beaſt, it was called *Aſcalabates*, or as *Suidas* deriveth it, of *Colobates*, becauſe by the help and dexterity of the fingers, it climbeth up the walls even as Rats and Mice; or as *Kiramides* will have it, from *Calos*, ſignifying a piece of wood, becauſe it climbeth upon wood and trees. And for the ſame reaſon it is called *Galeotes*, becauſe it climbeth like a Weaſil, but at this day it is vulgarly called among the *Grecians*, *Liakoni*; although ſome are alſo of opinion, that it is alſo known among them by the words *Thamiamithos*, and *Pſammamythe*.



Among the vulgar *Hebrews*, it is ſometimes called *Letaab*, and ſometimes *Semmamit*, as *Munſter* writeth. The *Arabians* call it *Sarnabraus*, and *Senabras*, a Stellion of the Gardens. And peradventure *Guarill*, *Guaſemabras*, *Alurel*, and *Gnaſes*. And *Sylvaticus* alſo uſeth *Epithets* for a Stellion. And the general *Arabian* word for ſuch creeping biting things, is *Vaſga*, which is alſo rendered a Dragon of the houſe. In ſtead of *Colotes*, *Albertus* hath *Arcolus*. The *Germans*, *Engliſh*, and *French*, have no words for this Serpent, except the *Latine* word, and therefore I was juſtly conſtrained to call it a Stellion, in imitation of the *Latine* word.

As I have ſhewed ſome difference about the name, ſo it now enſueth that I ſhould do the like about the nature and place of their abode. Firſt of all therefore I muſt put a difference betwixt the *Italian* Stellion or *Tarentula*, and the *Thracian* or *Grecian*, for the ſtellion of the Ancients is proper to *Grecia*. For they ſay this Stellion is full of Lentile ſpots, or ſpeckles, making a ſharp or ſhrill ſhrieking noiſe, and is good to be eaten, but the other in *Italy* are not ſo. Alſo they ſay in *Sicilia*, that their Stellions inflict a deadly biting, but thoſe in *Italy* cauſe no great harm by their teeth. They are covered with a skin like a ſhell or thick bark, and about their backs there are many little ſhining ſpots like eyes, (from whence they have their names) ſtreaming like ſtars, or drops of bright and clear water, according to this verſe of *Ovid*;

——— Aptumque colori
Nomen habet variis Stellatus corpora guttis.

Which may be Engliſhed thus;

And like his ſpotted hiew, ſo is his name,
The body ſtarred over like drops of rain.

It moveth but ſlowly, the back and tail being much broader then is the back and tail of a Lizard, but the *Italian Tarentulaes* are white, and in quantity like the ſmalleſt Lizards: and the other *Grecian* Lizards, (called at this day among them *Haconi*) is of bright ſilver colour, and are very harmful and angry, whereas the other are not ſo, but ſo meek and gentle, as a man may put his fingers into the mouth of it without danger. One reaſon of their white bright ſhining colour, is becauſe they want bloud, and therefore it was an error in *Sylvaticus* to ſay that they had bloud.

The teeth of this Serpent are very ſmall and crooked, and whenſoever they bite, they ſtick faſt in the wound, and are not pulled forth again except with violence. The tail is not very long, and yet when by any chance it is broken, bitten, or cut off, then it groweth again. They live in houſes, and neer unto the dores and windows thereof make their lodgings, and ſometims in dead-mens graves and Sepulchres, but moſt commonly they climbe and creep aloft, ſo as they fall down again; ſometimes into the meat as it is in dreſſing; and ſometimes into other things, (as we have already ſaid) into *Socrates* mouth, and when they deſcend of their own accord, they creep ſide-long, They eat Honey, and for that cauſe creep into the Hives of Bees, except they be very carefully ſtopped, as *Virgil* writeth;

Nam ſæpe favos, ignotus adedit Stellio.

Many times the Stellion at unawares meeteth with the Honey-combs. They alſo of *Italy* many times eat Spiders. They all lie hid four months of the year, in which time they eat nothing, and twice in the year, that is to ſay, both in the Spring time and Autumn, they caſt their skin, which they greedily eat ſo ſoon as they have ſtripped it off. Which *Theophraſtus* and other Authors write, is an envious part in this Serpent or creeping creature, becauſe they underſtand that it is a noble remedy againſt the Falling-ſickneſſe: wherefore to keep men from the benefit and good which might come thereby, they ſpeedily devour it.

And from this envious and ſubtile part of the Stellion, cometh the crime in *Ulpianus* called *Crimen Stellionatus*, that is, when one man fraudulently preventeth another of his money, or wares, or bargain, even as the Stellion doth man kinde of the remedy which cometh unto them by and from his skin.

The crime is alſo called Extortion, and among the *Romans*, when the Tribunes did withdraw from the Souldiers their proviſion of victual and corn, it is ſaid, *Tribunos qui per Stellaturas Militibus aliquid abſtuliſſent, capitali pœna afficit.* And therefore *Budeus* relateth a Hiſtory of two Tribunes, who for this ſtellature were worthily ſtoned to death by the commandment of the Emperor. And all frauds whatſoever, are likewiſe taxed by this name, which were not puniſhable but by the doom of the Supream or higheſt Judge, and thereupon *Alciatus* made this Emblem following.

Parva lacerta, atris Stellatus corpore guttis
Stellio, qui latebras & cava buſta colit,
Invidiæ pravique doli fert ſymbola, pictus:
Heu nimium nuribus cognita Zelotypis.

Nam turpi obtegitur faciem lentigine, quiſquis
Sit quibus immerſus Stellio, vina bibat.
Hinc vindicta frequens, decepta pellice vino,
Quam forma amiſſo flore relinquit amans.

Which may be Engliſhed thus;

The little Lizard, or Stellion ſtarred in body grain
In ſecret holes, and graves of dead which doth remain,
When painted you it ſee, or drawn before the eye,
A ſymbole then you view of deep deceit and curſed envy:
Alas, this is a thing to jealous wives known too well,
For whoſoever of that Wine doth drink his fill
Wherein a Stellion hath been drencht to death,
His face with filthy Lentile ſpots all ugly it appeareth,
Herewith a Lover oft requites the fraud of concubine,
Depriving her of beauties hiew by draught of this ſame Wine.

The Poet *Ovid* hath a pretty fiction of the Original of this curſed envy in Stellions, for he writeth of one *Abas* the ſon of *Metanira*, that received *Ceres* kindely into her houſe, and gave her hoſpitality, whereat the ſaid *Abas* being diſpleaſed, derided the ſacrifice which his mother made to *Ceres*: the Goddeſſe ſeeing the wretched nature of the young man, and his extream impiety againſt the ſacrifice of his Mother, took the Wine left in the goblet after the ſacrifice, and poured the ſame upon his head, whereupon he was immediately turned into a Stellion, as it is thus related by *Ovid*. *Metam.* 5.

Combibit os maculas, & quæ modo brachia geſſit
Crura gerit, cauda eſt mutatis addita membris:
Inque brevem formam, ne ſit vis magna nocendi,
Contrahitur, parvaque minor menſura lacerta eſt.

In Engliſh thus;

His mouth ſuckt in thoſe ſpots: and now where arms did ſtand,
His legs appear, and to his changed parts was put a tail,
And leſt it ſhould have power to harm, ſmall was the bodies band,
And of the Lizards poyſonous, this leaſt in ſhape did vail.

Their bodies are very brittle, ſo as if at any time they chance to fall, they break their tails. They lay very ſmall egges, out of which they are generated: and *Pliny* writeth, that the juyce or liquor of theſe egges laid upon a mans body, cauſeth the hair to fall off, and alſo never more permitteth it to grow again. But whereas we have ſaid, it devoureth the skin, to the damage and hurt of men, you muſt remember, that in ancient time the people did not want their policies and deviſes to take away this skin from them before they could eat it. And therefore in the Summer time they watched the lodging place and hole of the Lizard, and then in the end of the Winter toward the Spring, they took Reeds and did cleave them in ſunder, theſe they compoſed into little Cabinets, and ſet them upon the hole of the Serpent: Now when it awaked and would come forth, it being grieved with the thickneſſe and ſtraightneſſe of his skin, preſſeth out of his hole through thoſe Reeds or Cabinet, and finding the ſame ſomewhat ſtraight, is the more glad to take it for a remedy; ſo by little and little it ſlideth through, and being through, it leaveth the skin behinde in the Cabinet, into the which it cannot re-enter to devour it. Thus is this wily Serpent by the policy of man juſtly beguiled, loſing that which it ſo greatly deſireth to poſſeſſe, and changing nature, to line his guts with his coat, is prevented from that gluttony, it being ſufficient to have had it for a cover in the Winter, and therefore unſufferable that it ſhould make food thereof, and eat the ſame in the Summer,

Theſe Stellions (like as other Serpents) have alſo their enemies in nature, as firſt of all they are hated by the Aſſes, for they love to be about the Mangers and racks on which the Aſſe feedeth, and from thence many times they creep into the Aſſes open Noſtrils, and by that means hinder his eating. But above all other, there is greateſt antipathy in nature betwixt this Serpent and the Scorpion, for if a Scorpion do but ſee one of theſe, it falleth into a deep fear, and a cold ſweat, out of which it is delivered again very ſpeedily: and for this cauſe a Stellion putrified in Oyl, is a notable remedy againſt the biting of a Scorpion; and the like war and diſſenſion, is affirmed to be betwixt the Stellion and the Spider.

Aetius. We have ſhewed already, the difference of Stellions of *Italy* from them of *Greece*, how theſe are of a deadly poyſonous nature, and the other innocent and harmleſſe, and therefore now it is alſo convenient, that we ſhould ſhew the nature and cure of this poyſon, which is in this manner;

Whenſoever any man is bitten by a Stellion, he hath ach and pain thereof continually, and the wound received looketh very pale in colour, the cure whereof, according to the ſaying of *Aetius*, is to make a plaiſter of Garlick and Leeks mixed together, or elſe to eat the ſaid Garlick and Leeks, drinking after them a good draught of ſweet Wine, unmixed and very pure, or elſe apply *Nigella Romana. Seſamyne*, and ſweet Water unto it. Some (as *Arnoldus* writeth) preſcribe for this cure the dung of a Faulcon, or a Scorpion to be bruiſed all to pieces, and laid to the wound. But ſometimes it happeneth, that a mans meat or drink is corrupted with Stellions that fall into the ſame from ſome high place where they deſire to be climbing, and then if the ſame Meat or Wine ſo corrupted be eaten or drunk, it cauſeth unto the party a continual vomiting and pain in the ſtomach. Then muſt the cure be made alſo by vomits to avoid the poyſon, and by Glyſters to open the lower paſſage, that ſo there may be no ſtop or ſtay, to keep the impriſoned meat or drink in the body. And principally thoſe things are preſcribed in this caſe, which are before expreſſed in the Cantharides, when a man hath by any accident been poyſoned by eating of them.

The remedies which are obſerved out of this Serpent are theſe: Being eaten by Hawks, they make them quickly to caſt their old coats or feathers. Others give it in meat after it is bowelled, to them that have the Falling-ſickneſſe. Alſo when the head, feet, and bowels are taken away, it is *Creſcen.* profitable for thoſe perſons which cannot hold in their urine; and being ſodden, is given againſt the *Pliny.* Bloudy-flux. Alſo ſod in Wine with black Poppy-ſeed, cureth the pain of the loins, if the Wine be drunk up by the ſick patient.

The Oyl of Stellions being anointed upon the arm-holes or pits of children, or young perſons, it reſtraineth all hair for ever growing in thoſe places. Alſo the Oyl of Stellions, which are ſod in Oyl-olive with Lizards, do cure all boils and wens, conſuming them without lancing or breaking. And the aſhes of the Stellion are moſt principally commended againſt the Falling-ſickneſſe, like as alſo is the skin or trunck, as we have ſaid before. The head burned and dryed, and afterward mixed with Honey-attick, is very good againſt the continual dropping or running of the eyes; and in the days of *Pliny*, he writeth that they mixed *Stibium* herewithal. The heart is of ſo great force, that it being eaten, bringeth a moſt deep and dangerous ſleep, as may appear by theſe verſes:

Mande cor, & tantus proſternet corpora ſomnus,
Ut ſcindi poſſunt abſque dolore manus.

Which may be Engliſhed thus;

Eat you the heart, and then ſuch ſleep the body will poſſeſſe,
That hands may from the ſame be cut away painleſſe.

To conclude, the Phyſitians have carefully obſerved ſundry medicines out of the egges, gall, and dung of Stellions, but becauſe I write for the benefit of the *Engliſh* Reader, I will ſpare their relation, ſeeing we ſhall not need to fear the bitings of Stellions in *England*, or expect any drugs among our Apothecaries out of them, and therefore I will here end the Hiſtory of the Stellion.

Of the TYRE.

Actorius. THere be ſome which have confounded this Serpent with the Viper, and taken them both to be but one kinde, or at leaſt the Tyre to be a kinde of Viper, becauſe the *Arabians* call a Viper *Cælius Rho.* *Thiron*, of the *Greek* word *Therion*, which ſignifieth a wilde beaſt, and whatſoever the *Grecians* write of their *Echidna*, that is their Viper, the ſame things the *Arabians* write of the Tyre, and *Leonicenus* compiled a whole Book in the defence of that matter: and from hence cometh that noble name *Amatus.* or compoſition antidotary, called *Theriaca*, that is, Triacle. But *Avicen* in the mention of the Triacle of *Andromachus*, diſtinguiſheth the Triacle of the Viper, from that of the Tyre, and calleth one of them *Trohiſcos Tyri*, and the other *Trohiſcos Viperæ*. So *Gentilis* and *Florentinus* do likewiſe put a maniſeſt difference betwixt the Tyre and the Viper, although in many they are alike, and agree together.

This Tyre is called in *Latine Tyrus* and *Tyria*, and alſo among the *Arabians*, as *Sylvaticus* writeth, *Eoſmari*, and *Alpſabex*. *Rabbi Moſes* in his Aphoriſms writeth, that when the Hunters go to ſeek theſe Serpents, they carry with them bread, which they caſt unto them, and while the Tyre doth eat it, he cloſeth his mouth ſo faſt, that his teeth cannot ſuddenly open again to do his hunting adverſary any harm, and this thing (as he writeth) is very admirable at the firſt, to them that are ignorant of the ſecret in nature. *Galen* alſo writeth ſo much to *Piſo* of Vipers, and he ſaith that the Circulators, Juglers or Quackſalvers, did caſt certain mazes or ſmall cakes to them, which when they had taſted, they had no power to harm any body.

This *Tyrus* is ſaid to be a Serpent about the coaſts of *Jericho* in the Wilderneſſe, where it hunteth Birds, and liveth by devouring of them and their egs. And a confection of the fleſh of this Serpent, with the admixture of ſome few other things, taketh away all intoxicate poyſon, which confection is called Triacle. It is alſo reported, that whereas the Dragons have no poyſon of themſelves, they take it away from this Serpent, and ſo poyſon with a borrowed venom. For this poyſon is very deadly: and there is a tale (which I will not tell for truth) that before the coming and death of our Saviour Jeſus Chriſt, the ſame was unremediable, and they dyed thereof, whoſoever they were that had been poyſoned by a Tyre; but on the day of Chriſt his paſſion, one of them was found by chance in *Jeruſalem*, which was taken alive, and brought to the ſide of our Saviour hanging up on the Croſſe, where it alſo faſtened the teeth, and from that time ever ſince, all the kinde have received a qualified and remediable poyſon, and alſo their fleſh made apt to cure it ſelf, or other venoms.

It is reported that when the *Tyrus* is old, he caſteth, or rather wreſteth off his coat in this manner following; Firſt it getteth off the skin which groweth betwixt the eyes, by which it looketh as if it were blinde; and if it be ſtrange to a man, (I mean the firſt time that ever he ſaw it) he will verily take it to be blinde: afterward, it alſo fleyeth off the skin from the head, and ſo at laſt by little and little, the whole body, at which ſight it appeareth as though it were an Embryon, or skinleſſe Serpent. They keep their egs in their belly, and in them breed their young ones, as the Vipers do, for before they come out of the dams belly, they are in all parts (according to their kinde) perfect creatures, and ſo every one generateth his like, as do four-footed Beaſts.

I take it by the relation of *Geſner*, that the Dipſas in *Italy* is called *Tyrus*. Alſo *Cardan* writeth, that there is a ſuppoſed and falſe conceit, that with the fleſh of this Tyre, mixed with Hellebore and water, is made a confection to reſtore youth: but the truth is, it rather weakeneth and deſtroyeth bodies, then helpeth them, and maketh a counterfeit or varniſhed falſe youth, but no true youth at all. Thus far *Cardan*, and thus much of this Serpent, the other things written of it, are the ſame that are written of the Viper.

Of the TORTOISE.

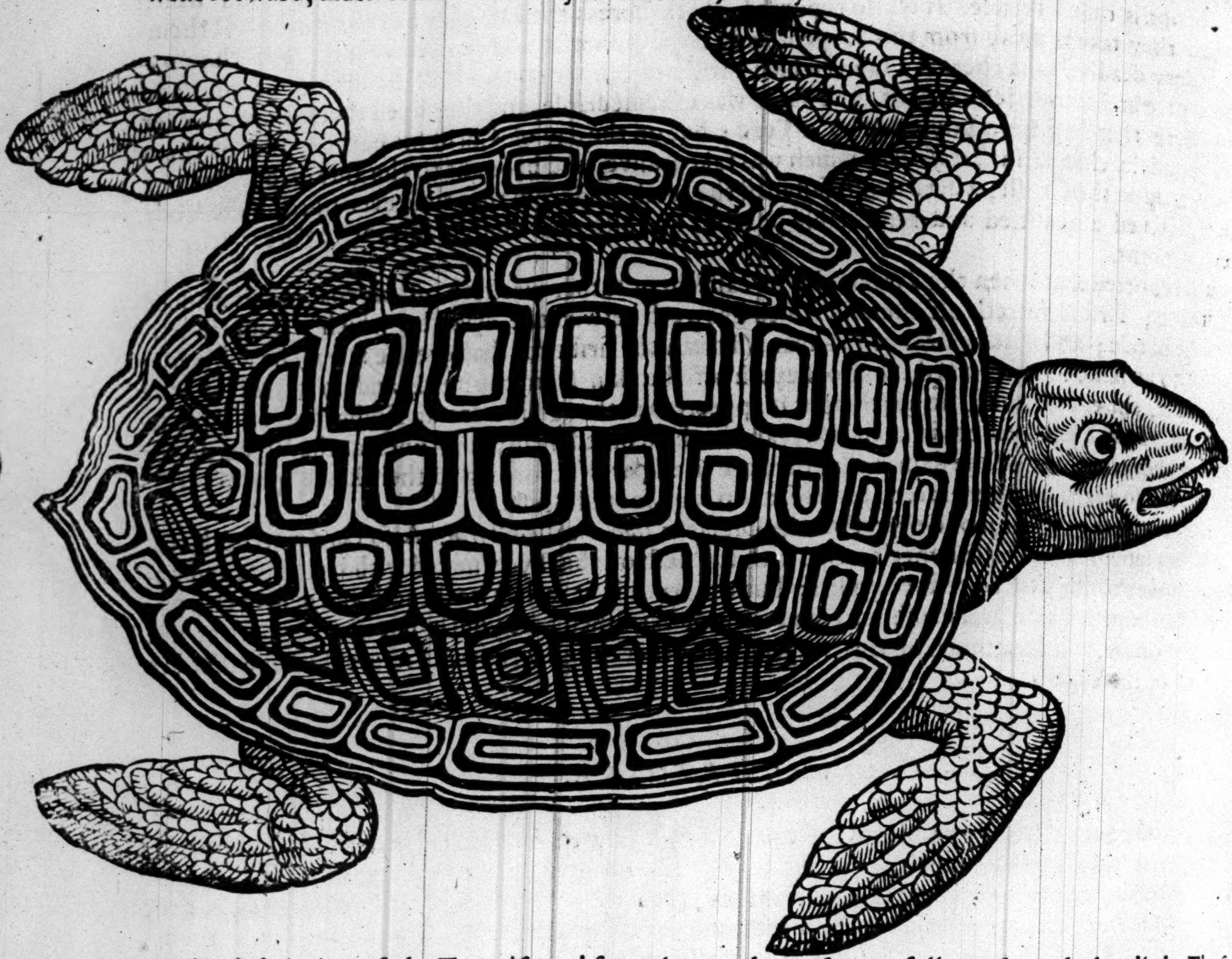
THe laſt four-footed Egge-breeding Beaſt, cometh now to be handled in due order and place; namely, the Tortoiſe, which I have thought good to inſert alſo in this place, although I cannot finde by reading or experience, that it is venomous, yet ſeeing other before me have ranged the ſame in the number and catalogue of theſe Serpents and creeping creatures, I will alſo follow them; and therefore I will firſt expreſſe that of the Tortoiſe, which is general and common to both kindes, and then that which is ſpecial, and proper to the Land and Sea Tortoiſes.

The name of this Beaſt is not certain, among the ***Hebrews*** ſome call it *Schabbul*, ſome *Kipod*, and ſome *Homet*; whereas every one of theſe do alſo ſignifie another thing, as *Schabbul*, a Snail; *Kipod*, a Hedge-hog; and *Homet*, a Lizard. The *Chaldeans* call this Beaſt *Thiblela*; the *Arabians* term it *Siſemat*, alſo *Kauuen ſalabbaſe*, and *Halachalie*; the *Italians* call this *Teſtuma*, *teſtudine*, *vel teſtugire*, *tartuca*, *mſuruma*, *tartocha*, *& coforona*. And in *Ferraria*, *Gallanæ*, *tartugellæ*, *biſcæ ſcutellariæ*; the Inhabitants of *Taurinum*, *Cupparia*; the *Portugals*, *Gagado*; the *Spaniards*, *Galapago*, and *Tartuga*; the *French*, *Tortue*, and *Tartue*; and in *Savoy*, *Boug coupe*; the *Germans*, *Schiltkrot*, and *Tallerkrot*; the *Flemings*, *Schiltpadde*, which anſwereth our *Engliſh* word *Shell-crab*; the *Grecians* call it *Chelone*; and the *Latines*, *Teſtudo*: which words in their ſeveral languages, have other ſignifications, as are to be found in every vocabular Dictionary, and thefore I omit them, as not pertinent to this buſineſſe or Hiſtory.

There be of Tortoiſes three kindes, one that liveth on the land, the ſecond in the ſweet waters, and the third in the Sea, or ſalt waters. There are found great ſtore of theſe in *India*, eſpecially of the Water-tortoiſes, and therefore the people of that part of the Countrey are called *Chelonophagi*; that is, Eaters of Tortoiſes, for they live upon them: and theſe people are ſaid to be in the Eaſt-part of *India*. And in *Carmania* the people are likewiſe ſo called. And they do not only eat the fleſh of them, but alſo cover their houſes with their ſhells, and of their abundance, do make them all manner of veſſels. *Pliny* and *Solinus* write, that the Sea-tortoiſes of *India* are ſo big, that with one of them they cover a dwelling Cottage. And *Strabo* ſaith, they alſo row in them on the waters, as in a Boat.

The Iſland of *Serapis* in the Red-ſea, and the fartheſt Ocean Iſlands, toward, the Eaſt of the Red-ſea, hath alſo very great Tortoiſes in it: and every where in the Red-ſea they ſo abound, that the people there do take them and carry them to their greateſt Marts and Fairs to ſell them, as to *Raphtis*, to *Ptolemais*, and the Iſland of *Dioſcorides*, whereof ſome have white and ſmall ſhells. In *Lybia* alſo they are found, and in the night time they come out of their lodgings to feed, but very ſoftly, ſo as one can ſcarcely perceive their motion.

And of one of theſe *Scaliger* telleth this ſtory. One night (ſaith he) as I was travelling, being overtaken with darkneſſe and want of light, I caſt about mine eyes to ſeek ſome place for my lodging, ſafe and ſecure from wilde Beaſts; and as I looked about, I ſaw (as I thought) a little hill or heap of earth, but in truth it was a Tortoiſe, covered all over with moſſe: upon that I aſcended and ſate down to reſt, whereupon after a little watching I fell aſleep, and ſo ended that nights reſt upon the back of the Tortoiſe. In the morning, when light approached, I perceived that I was removed far from the place, whereon I firſt choſe to lodge all night; and therefore riſing up, I beheld with great admiration the face and countenance of this Beaſt, in the knowledge whereof, (as in a new nature) I went forward, much comforted in my weariſome journey.



The deſcription of the Tortoiſe and ſeveral parts thereof now followeth to be handled. Thoſe creatures (ſaith *Pliny*) which bring forth or lay egs, either have feathers as Fowls, or have ſcales as Serpents, or thick hides as the Scorpion, or elſe a ſhell like the Tortoiſe. It is not without great cauſe that this ſhell is called *Scutum*, and the Beaſt *Scutellaria*, for there is no buckler and ſhield ſo hard and ſtrong as this is. And *Palladius* was not deceived when he wrote thereof, that upon the ſame might ſafely paſſe over a Cart-wheel, the Cart being loaded. And therefore in this the Tortoiſe is more happy then the Crocodile, or any other ſuch Beaſt.

Albertus writeth that it hath two ſhels, one upon the back, the other on the belly, which are conjoyned together in four places, and by reaſon of this ſo firm a cover and ſhell, the fleſh thereof is dry and firm, alſo long laſting, and not very eaſie or apt to putrefaction. This ſhell or cover is ſmooth, except ſometimes when it is grown old, it hath moſſe upon it, and it never caſteth his coat in old age, as other creeping things do. In the head and tail it reſembleth a Serpent, and the great Tortoiſes have alſo ſhells upon their heads like a ſhield, yet is the head but ſhort, and the aſpect of it very fearful, until a man be well acquainted therewith. And by reaſon of the hardneſſe of their eyes, they move none but the neather eye-lid, and that without often winking. The liver of it is great, yet without any bloud. It hath but one belly without diviſion, and the liver is always foul, by reaſon of the vitious temperature of the body. The milt is exceeding ſmall, coming far ſhort of the bodies proportion.

Beſide, the common nature of other thick-hided creatures. It hath alſo reins, except that kinde of Tortoiſe called *Lutaria*, for that wanteth both reins and bladder; for by reaſon of the ſoftneſſe of the cover thereof the humor is over-fluent; but the Tortoiſe that bringeth forth egs hath all inward parts like a perfect creature: and the females have a ſingular paſſage for their excrements, which is not in the males. The egs are in the body of the belly, which are of a party-colour like the egs of Birds.

Their ſtones cleave to their loins, and the tail is ſhort, but like the tail of a Serpent.

They have four legs, in proportion like the legs of Lizards, every foot having five fingers or diviſions upon them, with nails upon every one. And thus much for the ſeveral parts.

They are not unjuſtly called ***Amphibia***, becauſe they live both in the water and on the land, and in this thing they are by *Pliny* reſembled to Beavers: but this muſt be underſtood of the general, otherwiſe the Tortoiſes of the land do never dare come into the water: and thoſe of the water can breath in the water, but want reſpiration, and likewiſe they lay their Egges and ſleep upon the dry land. They have a very ſlow and eaſie pace; and thereupon *Pauvius* calleth it *Tardigrada*, and alſo there is a Proverb, ***Teſtudineus inceſſus*** for a ſlow and ſoft pace, when ſuch a motion is to be expreſſed. The Tortoiſe never caſteth his coat, no not in his old age. The voyce is an abrupt and broken hiſſing, not like to the Serpents, but much more loud and diffuſed. The male is very ſalacious and given to carnal copulation, but the female is not ſo; for when ſhe is attempted by the male, they fight it out by the teeth, and at laſt the male overcometh, whereat he rejoyceth as much as one that in a hard conflict, fight, or battail, hath won a fair Woman; the reaſon of this unwillingneſſe is, becauſe it is exceeding painful to the female. They engender by riding or covering one another. When they have laid their Egges, they do not ſit upon them to hatch them, but lay them in the Earth, covered, and there by the heat of the Sun is the young one formed, and cometh forth at due time without any further help from his Parents.

They are accounted crafty and ſubtle in their kinde, for ſubtleneſſe is not only aſcribed to things that have a thin bloud, but alſo to thoſe that have thick skins, hides, and covers, ſuch as the Tortoiſe and Crocodile have. The Tortoiſe is an enemy to the Partridge, as *Philes* and *Ælianus* write: Alſo the Ape is as fraid thereof, as it is of the Snail: and to conclude, whatſoever enemy it hath, it is ſafe enough as long as it is covered with his ſhell, and clingeth faſt to the earth beneath; and therefore came the proverb, *Oikos philos, oikos ariſtos*. That houſe which is ones friend, is the beſt houſe.

The Poets give a fabulous reaſon, why the Tortoiſe doth ever carry his houſe upon his back, which is this: They ſay, that on a time *Jupiter* bad all living creatures to a banquet or Marriage feaſt, and thither they all came at the time appointed, except the Tortoiſe: and ſhe at laſt alſo appeared at the end of the feaſt when the meat was all ſpent: whereat *Jupiter* wondered, and asked her why ſhe came no ſooner? Then it anſwered him, *Oikos philos, oikos ariſtos*; at which anſwer *Jupiter* being angry, adjudged her perpetually to carry her houſe on her back, and for this cauſe they fable, that the Tortoiſe is never ſeparated from her houſe.

Flaminius the *Roman* diſſwading the ***Achæans*** from attempting the Iſland of *Zacynthus*, uſed this argument; and ſo afterward ***T. Livius***. *Cæterum ſicut Teſtudinem, ubi collecta in ſuum tegumen eſt, tutam ad omnes ictus vidi eſſe: ubi exerit partes aliquas, quodcunque nudavit, obnoxium atque infirmum habere: Haud diſſimiliter vobis Achæi, clauſis undique maris, quod intra Peloponneſum eſt, termino, ea & jungere vobis, & juncta tueri facile: ſi ſemel aviditate plura amplectendi hinc excedatis, nuda vobis omnia quæ extra ſint & expoſita ad omnes ictus eſſe.* Thus far *Pliny*. That is to ſay, Even as when the Tortoiſe is gathered within the compaſſe of her ſhell, then is it ſafe and free from all ſtroaks, and feeleth no violence, but whenſoever ſhe putteth forth a limb or part, then is it naked, infirm, and eaſie to be harmed: ſo is it with you *Achæans*, for by reaſon of the incloſed ſeat of *Peloponneſus* within the Straights of the Sea, you may well winde all that together, and being conjoyned, as well defend it: But if once your avidous and covetous mindes to get more, appear and ſtretch it ſelf beyond thoſe limits, you ſhall lay open your naked infirmity and weakneſſe, to all force, blows, and violence whatſoever. Wherefore the Tortoiſe careth not for flies, and men with good armour care not much for light and eaſie adverſaries.

Alciatus hath a witty Emblem of a Tortoiſe to expreſſe a good huſwife, and that the fame of her vertues, ſpreadeth much further then either beauty or riches.

Alma Venus, quænam hæc facies? quid denotat illa
Teſtudo, molli quam pede diva premis?
Me ſic effinxit Phidias, ſexumque referri
Fœmineum noſtra juſſit ab effigie,
Quodq; manere domi, & tacitas debet eſſe puellas,
Suppoſuit pedibus talia ſigna meis.

Which may be Engliſhed thus;

Loves holy God, what means that ugly face?
What doth that Tortoiſe ſignifie indeed,
Which thou ô Goddeſſe under ſoft foot doſt pace?
Declare what means the ſame to me with ſpeed:
Such is the ſhape that Phidias did me frame,
And bade me go reſemble Womankinde,
To teach them ſilence, and in houſe remain,
Such pictures underneath my feet you finde.

There is a manifold uſe of Tortoiſes, eſpecially of their cover or ſhell, and likewiſe of their fleſh, which cometh now to be handled. And firſt of all, the ancient ornaments of Beds, Chambers, Tables, and Banquetting houſes, was a kinde of artificial work, called *Carvilius*, and this was framed in gold and ſilver, braſſe and wood, Ivory and Tortoiſe-ſhels; but, ***Modo luxuria non fuerit contenta ligno, jam lignum emi teſtudinem facit***: That is to ſay, Ryot not contented, ſought precious frames of wood; and again, the uſe of wood cauſed Tortoiſe-ſhells to be deerly bought, and thereof alſo complained the Poet *Juvenal*, where he ſaith;

——Nemo curabat
Rivalis in Oceani fluctu teſtudo nataret
Clarum Trojugenis factura & nobile fulcrum.

In Engliſh thus;

Then none did care for Tortoiſe in the Ocean flood,
To make the noble beds for Trojans bloud.

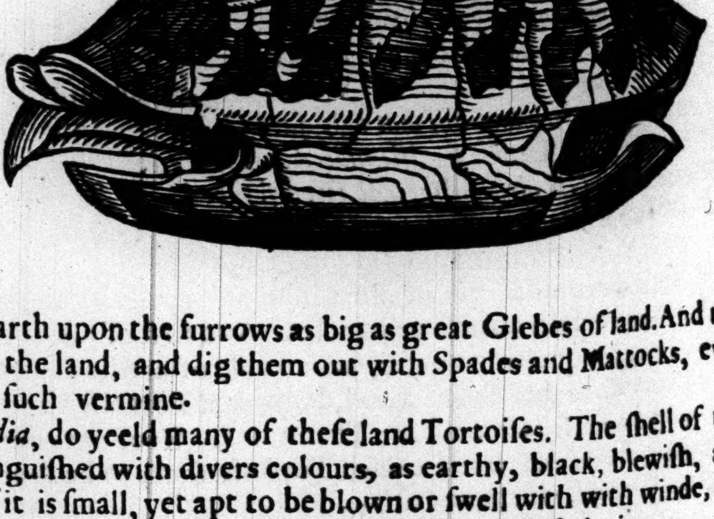
We have ſhewed already that there are certain people of the Eaſt called *Chelophagi*, which live by eating of Tortoiſes, and with their ſhells they cover their houſes, make all their veſſels, row in them upon the water, as men uſe to row in boats, and make them likewiſe ſerve for many other uſes.

But as concerning the eating of the fleſh of Tortoiſes, the firſt that ever we read that uſed this ill diet, were the *Amazons*, according as *Cœlius Rhod*: and other Authors writeth. Beſides, *Aloyſius Cadamuſtus* affirmeth, that he himſelf did taſt of the fleſh of a Tortoiſe, and that it was white in colour, much like unto Veal, and not unpleaſant. But *Raſis* is of a clean contrary opinion, condemning it for very unſavory, and unwholeſome, becauſe the taſte and temperament thereof is betwixt the Land and the Water, it being a Beaſt that liveth in both Elements. And in eating hereof the *Grecians* have a proverb, *Chelones kreas he phagein, he me phagein*: That is, either eat Tortoiſe fleſh, or eat it not. Meaning that when we eat it, we muſt eat nothing elſe, and therefore muſt be filled ſufficiently only with that kinde of meat; For to eat little, breedeth fretting in the belly, and to eat much is as good as a purgation, according to the obſervarion of many actions, which being done *frigide & ignaviter*, that is, coldly and ſlothfully to halfs, do no good, but being done *acriter & explicate*, earneſtly and throughly bring much content and happineſſe.

But I marvail why they are uſed in this age, or deſired by Meat-mongers, ſeeing *Apicius* in all his Book of Variety of Meats, doth not mention them; and I therefore will conclude the eating of Tortoiſes to be dangerous, and hateful to Nature it ſelf, for unleſſe it be taken like a Medicine, it doth little good, and then alſo the Sawces and decoctions or compoſitions that are confected with it, are ſuch as do not only qualifie, but utterly alter all the nature of them, (as *Stephanus Aquæus* hath well declared in his *French* diſcourſe of Frogs and Tortoiſes.) And therefore to conclude this Hiſtory of the Tortoiſe, I will but recite one riddle of the ſtrangeneſſe of this Beaſt which *Tertullian* out of *Pacuvius* maketh mention of, and alſo in *Greek* by *Maſcopulus*, which is thus tranſlated.

Animal peregrinæ naturæ, ſine ſpiritu ſpiro, geminis oculis retro juxta cerebrum, quibus ducibus antrorſum progredior. Super ventre cœruleo pergo, ſub quo venter latet albus, apertus & clauſus. Oculi non aperiuntur, neq; progredior, donec venter intus albus vacuus eſt. Hoc ſaturato, oculi apparent inſignes, & pergo ad iter: Et quanquam mutum varias edo voces: That is to ſay, *I am a living creature, of a ſtrange nature, I breath without breath, with two eye behinde, neer my brains do I go forward, I go upon a blew belly, under which is alſo another white, open and ſhut, my eyes never open, I go forward until my belly be empty, when it is full, then they appear plain and I go on my journey, and although I am mute or dumb, yet do I make many voyces.* The explication of this riddle, will ſhew the whole nature of the Beaſt, and of the Harp called *Chelys*. For ſome things are related herein of the living creature, and ſome things again of an Inſtrument of Muſick made upon his ſhell and cover. And thus much for the Tortoiſe in general, the Medicines I will reſerve unto the end of this Hiſtory.

Of the TORTOISE *of the Earth, whoſe ſhell is only figured.*



These Tortoiſes which never come in water, either ſweet or Salt, clear or muddy, are called by *Grecians*, *Chelone Cherſaie*; by the *Latines*, *Cherſinæ*, and *Teſtudines*, *Terreſtres*, *Sylveſtres*, and *Montanæ*; and by *Nicander*, *Orinæ*; and the *French* peculiarly *Tortue des Boys*, a Tortoiſe of the wood.

Strabo.

These are found in the Deſarts of *Africa*, as in *Lybia* and *Mauritania*, in the open fields, and likewiſe in *Lydia* in the Corn-fields, for when the Plough-men come to plough their land, their ſhares turn them out of the earth upon the furrows as big as great Glebes of land. And the ſhels of theſe the Husbandmen burn on the land, and dig them out with Spades and Mattocks, even as they do Worms among places full of ſuch vermine.

The Hill *Parthenius*, and *Soron* in *Arcadia*, do yeeld many of theſe land Tortoiſes. The ſhell of this living Creature is very pleaſantly diſtinguiſhed with divers colours, as earthy, black, blewiſh, and almoſt like a Salamanders. The liver of it is ſmall, yet apt to be blown or ſwell with with winde, and in all other parts they differ not from the common and vulgar general prefixed deſcription.

Ælianus.

Theſe live in Corn-fields, upon ſuch fruits as they can finde; and therefore alſo they may be kept in Cheſts or Gardens, and fed with Apples, Meal, or Bread without Leaven. They eat alſo Cockles, and Worms of the earth, and Three-leaved-graſſe. They will alſo eat Vipers, but preſently after they eat Origan, for that herb is an antidote againſt Viperine poyſon for them, and unleſſe they can inſtantly finde it, they die of the poyſon. The like uſe it is ſaid to have of Rue, but the Tortoiſes of the ſandy Sea in *Africk* live upon the fat, dew, and moiſtneſſe of thoſe Sands. They are ingendered like other of their kinde, and the males are more venereous then the females, becauſe the female muſt needs be turned upon her back, and ſhe cannot riſe again without help: wherefore many times the male after his luſt is ſatisfied, goeth away, and leaveth the poor female to be deſtroyed of Kites, or other adverſaries: their natural wiſdom therefore hath taught them to prefer life and ſafety before luſt and pleaſure. Yet *Theocritus* writeth of a certain herb, that the male Tortoiſe getteth into his mouth, and at the time of luſt turneth the ſame to his female, who preſently upon the ſmell thereof, is more enraged for copulation then is the male, and ſo giveth up her ſelf to his pleaſure without all fear of evil, or providence againſt future danger: but this herb neither he nor any other can name. They lay Egges in the earth, and do not hatch them, except they breath on them with their mouth, out of which at due time come their young ones. All the Winter time they dig themſelves into the earth, and there live without eating any thing, inſomuch as a man would think they could never live again, but in the Summer and warm weather they dig themſelves out again without danger.

The Tortoiſes of *India* in their old and full age change their ſhells and covers, but all other in the World never change or caſt them. This Tortoiſe of the earth is an enemy to Vipers, and other Serpents, and the Eagles again are enemies to this, not ſo much for hatred as deſirous thereof for Phyſick, againſt their ſickneſſes and diſeaſes of nature; and therefore they are called in *Greek Chelonophagoi aetoi*, Tortoiſe-eating Eagles: for although they cannot come by them out of their deep and hard ſhells, yet they take them up into the air, and ſo let them fall down upon ſome hard ſtone or Rock, and thereupon it is broken all to peeces, and by this means dyed the famous Poet *Æſchylus*, which kinde of fate was foretold him, that ſuch a day he ſhould die: wherefore to avoid his end, in a fair Sun-ſhine clear day he ſate in the fields, and ſuddenly an Eagle let a Tortoiſe fall down upon his head which brake his skull, and cruſhed out his brains, whereupon the *Grecians* wrote:

Aeſchulo graphonti, epipeptoke Chelone.
Which may be Engliſhed thus;
Eſchylus writing upon a rock,
A Tortoiſe falling, his brains out knock.

The uſe of this land Tortoiſe, are firſt for Gardens, becauſe they clear the Gardens from Snails and Worms: out of the *Arcadian* Tortoiſes they make Harps, for their ſhells are very great, and this kinde of Harp is called in *Latine Teſtudo*, the inventer whereof is ſaid to be *Mercury*, for finding a Tortoiſe after the falling in of the River *Nilus*, whoſe fleſh was dryed up, becauſe it was left upon the Rocks, he ſtruck the ſinews thereof, which by the force of his hand made a muſical ſound, and thereupon he framed it into a Harp, which cauſed other to imitate his action, and continue that unto this day.

Theſe Tortoiſes are better meat then the Sea or Water Tortoiſes: and therefore they are preferred for the belly; eſpecially they are given to Horſes, for by them they are raiſed in fleſh, and made much fatter. And thus much ſhall ſuffice for the Tortoiſe of the earth.

Of the TORTOISE *of the Sweet-water.*

PLiny maketh four kindes of Tortoiſes, one of the Earth, a ſecond of the Sea, a third called *Lutaria*, and the fourth called *Swyda*, living in Sweet-waters, and this is called by the *Portugals*, *Cagado*; and *Gagado*; the *Spaniards*, *Galapag*; and the *Italians*, *Gaiandre de aqua*. There are of this kinde found in *Helvetia*, neer to *Zurick*, at a Town called *Andelfinge*: but the greateſt are found in the River *Ganges* in *India*, where their ſhells are as great as tuns, and *Damaſcen* writeth, that he ſaw certain Embaſſadours of *India*, preſent unto *Auguſtus Cæſar* at *Antiochia*, a Sweet-water Tortoiſe, which was three cubits broad. They breed their young ones in *Nilus*. They have but a ſmall Milt, and it wanteth both a bladder and reins. They breed their young ones and lay their Egges on the dry land, for in the water they die without reſpiration: therefore they dig a hole in the earth wherein they lay their Egges, as it were in a great ditch, of the quantity of a Barrel, and having covered them with earth, depart away from them for thirty days; afterwards they come again and uncover their Eggs, which they finde formed into young ones, thoſe they take away with them into the water: and theſe Tortoiſes at the inundation of *Nilus* follow the Crocodiles, and remove their neſts and egges from the violence of the floods.

There was a magical and ſuperſtitious uſe of theſe Sweet-water Tortoiſes againſt Hail, for if a man *Ælianus.*
take one of theſe in his right hand, and carry it with the belly upward round about his Vineyard, and ſo returning in the ſame manner with it, and afterward lay it upon the back, ſo as it cannot turn on the belly, but remain with the face upward, all manner of Clowds ſhould paſſe over that place and never empty themſelves upon that Vineyard. But ſuch Diabolical and fooliſh obſervations were *Palladius.*
not ſo much as to be remembred in this place, were it not for their ſillineſſe, that by knowing them,

them, men might learn the weakneſſe of humane wiſdom when it erreth, from the Fountain of all ſcience and true knowledge (which is Divinity) and the moſt approved operations of Nature: And ſo I will ſay no more in this place of the Sweet-water Tortoiſe.

Of the TORTOISE of the Sea.

IT were unproper and exorbitant to handle the Sea-tortoiſe in this place, were it not becauſe it liveth in both elements, that is, both the water and the land, wherefore ſeeing the Earth is the place of his generation, as the Sea is of his food and nouriſhment, it ſhall not be amiſſe nor improper (I truſt) to handle this alſo among the Serpents and creeping things of the earth.

Pliny calleth this Sea-tortoiſe *Mus Marinus*, a Mouſe of the Sea, and after him *Albertus* doth ſo likewiſe. The *Arabians* call it *Aſſulbaſch*; and the *Portugals*, *Tartaruga*; and in *Germany*, *Meerſchiltkrott*, which the common Fiſher-men call the Souldier, becauſe his back ſeemeth to be armed and covered with a ſhield and helmet, eſpecially on the fore-part: which ſhield is very thick, ſtrong, and triangular, there being great veins and ſinews which go out of his neck, ſhoulders, and hips, that tie on and faſten the ſame to his body.

His fore-feet being like hands, are forked and twiſted very ſtrong, and with which it fighteth and taketh his prey, and nothing can preſſe it to death except the frequent ſtrokes of Hammers. And in all their members except their quantity, and their feet, they are much like the Tortoiſes of the earth, for otherwiſe they are greater, and are alſo black in colour. They pull in their heads as occaſion is miniſtred to them, either to fight, feed, or be defended, and their whole ſhell or cover ſeemeth to be compounded of fine Plates. They have no teeth, but in the brims of their beaks or or ſnouts are certain eminent divided things like teeth, very ſharp, and ſhut upon the under lip like as the cover of a Box, and in the confidence of the ſharp prickles, and the ſtrength of their hands and backs, they are not afraid to fight with men.

Their eyes are moſt clear and ſplendent, caſting their beams far and near, and alſo they are of white colour, ſo that for their brightneſſe and rare whiteneſſe, the Apples are taken out and included in Rings, Chains, and Bracelets. They have reins which cleave to their backs, as the Reins of a Bugle or Ox. Their feet are not apt to be uſed in going, for they are like to the feet of Seals or Sea-calves, ſerving in ſtead of Oars to ſwim withall. Their legs are very long, and ſtronger in their feet and nails, then are the claws of the Lion.

Braſavolus. They live in Rocks and the Sea-ſands, and yet they cannot live altogether in the water, or on the land, becauſe they want breathing and ſleep, both which they perform out of the Water: yet *Pliny* writeth, that many times they ſleep on the top of the water, and his reaſon is, becauſe they lie ſtill unmoveable, (except with the Water) and ſnort like any other Creature that ſleepeth, but the contrary appeareth, ſeeing they are found to ſleep on the land, and the ſnorting noiſe they make is but an endeavour to breath, which they cannot well do on the top of the water, and yet better there then in the bottom.

Ariſtotle. They feed in the night-time, and the mouth is the ſtrongeſt of all other Creatures, for with it they they cruſh in pieces any thing, be it never ſo hard, as a ſtone or ſuch things: they alſo come and eat graſſe on the dry land. They eat certain little Fiſhes in the Winter time, at which ſeaſon their mouth is hardeſt, and with theſe Fiſhes they are alſo baited by men, and ſo taken. *Pauſanias* writeth, that in *Africa* that there are Maritine Rocks called *Sceleſtæ*, and there dwelleth among a creature called *Scynon*, that is *Zyſtyron*, a Tortoiſe, and whatſoever he findeth on thoſe Rocks which is ſtranger in the Sea, the ſame he taketh and caſteth down headlong. *Oppianus.* *Plinius.* They engender on the Land, and the female reſiſteth the copulation with the male, until he ſet againſt her a ſtalk or ſtem of ſome tree or plant. They lay their Egs and cover them in the earth, planing it over with their breaſts, and in the night-time they ſit upon them to hatch them. Their Egs are great, of divers colours, having a hard ſhell, ſo that the young one is not framed or brought forth within leſſe compaſſe then a year, (as *Ariſtotle* writeth) but *Pliny* ſaith thirty days.

And for as much as they cannot by Nature, nor dare for accident long tarry upon the land: they ſet certain marks with their feet upon the place where they lay their Egs, whereby they know the place again, and are never deceived. *Plutarch.* Some again ſay, that after they have hid their Egs in the earth forty days, the female cometh the juſt fortieth day, not failing of her reckoning, and uncovereth her Egs wherein ſhe findeth her young ones formed, which ſhe taketh out as joyfully as any man would do Gold out of the earth, and carryeth them away with her to the water. They lay ſometimes an hundred Egs, and ſometimes they lay fewer, but ever the number is very great.

There is upon the left ſide of *Hiſpaniola*, a little Iſland upon the Port *Beata*, which is called *Altus Bellus*, where *Peter Martyr* reporteth ſtrange things of many creatures; eſpecially of the Tortoiſes, for he writeth, that when they rage in luſt for copulation, they come on ſhore, and there they dig a ditch wherein they lay together three or four hundred Egs, being as great as Gooſe Egs, and when they have made an end, they cover them with ſand and go away to the Sea, not once looking after them: but at the appointed time of Nature, by the heat of the Sun, the young Tortoiſes are hatched, engendered, and produced into light without any further help of their parents.

Great is the courage of one of theſe, for it is not afraid to ſet upon three men together, but if it can be turned upward upon the back, it is made weak and unreſiſtible. And if the head be cut

off

Ælianus.

off and ſevered from the body, it dieth not preſently, nor cloſeth the eyes, for if a man ſhake his hand at it, then will it wink, but if he put it neer, it will alſo bite if it can reach it. If by the heat of the Sun their backs grow dry, they alſo grow weak and inflexible, and therefore they haſten to the water to remollifie them, or elſe they die within ſhort time: and for this cauſe this is the beſt way to take them. In the hotteſt day they are drawn into the deep, where they ſwim willingly with their backs or ſhells above the water, where they take breath, and in continuance, the Sun ſo hardeneth them, that they are not able to help themſelves in the water, but they grow very faint and weak, and are taken at the pleaſure of the Fiſherman.

They are alſo taken on the tops of the water after they return weary from their feeding in the night-time, for then two men may eaſily turn them on their backs, and in the mean while another caſteth a Snare upon them and draweth them ſafely to the land. In the *Phœnician* Sea they are taken ſafely without danger, and generally where they may be turned on their back, there they can make no reſiſtance, but where they cannot, many times they wound and kill the Fiſher-men, breaking the nets aſunder, and let out all the other Fiſh included with them.

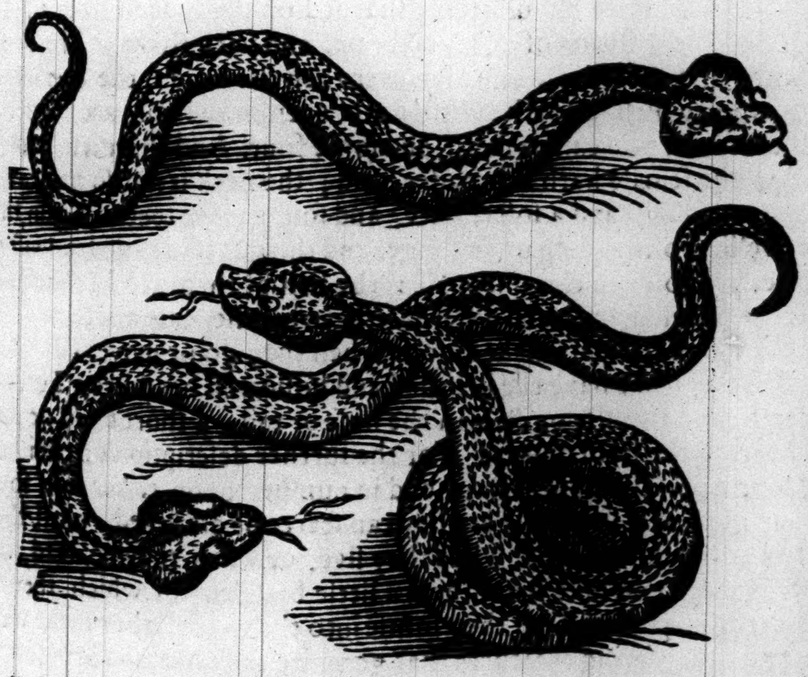
Boemus.

Bellonius writeth, that there be of theſe Sea-tortoiſes two kindes, one long, the other round, and both of them breath at their Noſes, becauſe they want gills, and the long ones are moſt frequent about the Port *Torra* in the Red-ſea, whoſe cover is variable, for the males ſhell is plain and ſmooth underneath, and the females is hollow. The *Turks* have a kinde of Tortoiſe, whoſe ſhell is bright like the Chryſolite, of which they make hafts for Knives of the greateſt price, which they adorn with plates of gold. In *Jambolus*, an Iſland of the South, there are alſo found certain Monſters or living creatures, which are not very great, yet are they admirable in Nature, and in the vertue of their bloud.

Their bodies are round and like the Tortoiſe, having two croſſe lines over their backs, in the ends of which is an eye and an ear at either ſide, ſo as they ſeem to have four ears, the belly is but one, into which the meat paſſeth out of the mouth. They have feet round about, and with them they go both backward and forward. The vertue of their bloud is affirmed to be admirable: for whatſoever body is cut aſunder and put together, if it be ſprinckled with this bloud during the time that it breatheth, it counitesh as before.

The ancient *Troglodytes* had a kinde of Sea-tortoiſe, which they call *Celtium*, which had horns unto which they faſtened the ſtrings of their harps; theſe alſo they worſhipped and accounted very holy. Yet ſome think that they might better be called *Celetum* then *Celtium*; but I think *Hermolaus* doth better call them *Chelitium apo tes Cheluos*, which ſignifieth both a Tortoiſe and their broad breaſts; and with their horns they help themſelves in ſwimming. *Albertus* alſo maketh mention of a Tortoiſe called *Barchora*, but it is thought to be a corrupt word from *Oſtra Godermus*. Theſe Sea-Tortoiſes are found ſometimes to be eight cubits broad, and in *India* with their ſhells they cover houſes, and ſuch uſe they alſo put them unto in *Taprobana*, for they have them fifteen cubits broad. And thus much for all kinde kinde of Tortoiſes.

Of the VIPER.



Mercuriall.

NOtwithſtanding the aſſeveration of *Sueſſanus*, who will needs exclude the Viper from the Serpents, becauſe a Serpent is called *Ophis*, and the Viper *Echis*, yet I truſt there ſhall be no reaſonable man that can make exception to the placing of this living creature among Serpents; for that great learned man was deceived in that argument, ſeeing by the ſame reaſon he might as well exclude any other, as the Snake, Dragon, Scorpion, and ſuch like, who have their peculiar names, beſides the generall word *Ophis*, and yet might he alſo have been better adviſed, then to affirm a Viper not to be called a Serpent: for even in *Ariſtotle* whom he expoundeth and approveth, he might have found in his fifth Book of *Gen. animal.* and the laſt Chapter, that the Viper is recorded, *Inter genera opheon*: that is, Amongſt the general kindes of Serpents, although as we ſhall ſhew afterward, it differeth from moſt kindes of Serpents, becauſe it breedeth the young one in his belly, and in the Winter time lyeth in the Rocks, and among ſtones, and not in the earth.

The *Hebrews* as it appeareth, Eſa. 59. and Job 6. call it *Aphgnath*, and according to *Munſter Aphgnaim* plurally for Vipers, becauſe of the variety of colours, wherewithal they are ſet all over. The

Arabians from the *Greek* word *Thereon*, ſignifying all kinde of wide Beaſts, do alſo call it *Thiron*, and that kinde of Viper whereof is made the Triacle, they call a *Alafafrai*, and *Alphai*: they alſo call it *Eoſman*, (as *Leonicenus* writeth.) Beſide it is called *Alphe*, which ſeemeth to be derived of the *Hebrews*, and *Aſis*, which may likewiſe be conjectured to ariſe from the *Greek* word *Ophis*. The *Greeks* call the Male peculiarly and properly *Echis*, and the Female *Echidna*, and it is a queſtion whether the vulgar word among the *Grecians* at this day *Ochendra*, do not alſo ſignifie this kinde of Serpent. *Bellonius* thinketh, that it is corrupted of *Echidna* the female Viper. The *Germans* have many words for a Viper, as *Brandt Schlangen*, *Natet-otter*, *Heck nater*, and *Viper-nater*. The *French*, *une Vipere*; the *Spaniards*, *Bivora*, and *Bicha*; the *Italians*, *Vipera*, *Maraſſo*, *Scurtio*, and ſometimes *Scorzonei*, although *Scorzo*, and *Scorzone*, be general words in *Italy* for all creeping Serpents without feet, and that ſtrike with their teeth.

There is alſo about the word *Maræſo* ſome queſtion, although *Leonicenus* decideth the matter, and maketh it out of all Controverſie, and *Rhodiginus* thinketh it a very ſignificant word derived from the people *Marſi*, becauſe they carryed about Vipers. The Mountebanks do alſo call *Suffili*, from *Sibila*, the hiſſing voyce which it maketh. Some will have *Nepa* to be alſo a Viper, yet we have ſhewed that already to ſignifie a Scorpion.

The *Grecians* ſay, that the Viper is called *Echidna*, *para to echein in eaute ten gonen achri thanaton*: becauſe to her own death ſhe beareth her young one in her belly; and therefore the *Latines* do alſo call it *Vipera*, *quaſi Vi pariat*: becauſe it dyeth by violence of her birth or young: and they attribute unto it venom and peſtilence, and generally there are few Epithets which are aſcribed to the Serpent, but they alſo belong unto this. There is a precious ſtone *Echites*, (greeniſh in colour) which ſeemeth to be like a Viper, and therefore taketh name from it. Alſo an herb *Echite*, like *Scammony*, and *Echidmon* or *Viperina*. In *Cyrene* there are Mice, which from the ſimilitude of Vipers are called *Echenatæ*. *Echion* was the name of a man, and *Echionidæ* and *Echionii*, of people; and *Echidnon* a City beſide the Sea *Ægeum*: Alſo the Eagle which by the Poets is faigned to eat the heart of *Prometheus*, is likewiſe by them ſaid to be begotten betwixt *Typhon* and *Echidna*, and the ſame *Echidna* to be alſo the Mother of *Chimera*: which from the Navel upward was like a Virgin, and downward like a Viper, of which alſo *Diodorus Siculus*, and *Herodotus* telleth this ſtory:

When *Hercules* was driving away the Oxen of *Geryon*, he came into *Scythia*, and there fell aſleep, leaving his Mares feeding on his right hand in his Chariot, and ſo it happened by divine accident, that whiles he ſlept they were removed out of his ſight and ſtrayed away from him. Afterward he awaked, and miſſing them, ſought all over the Countrey for them; at laſt he came unto a certain place, where in a Cave he found a Virgin of a double natured proportion, in one part reſembling a Maid, and in the other a Serpent, whereat he wondered much, but ſhe told him, that if he would lie with her in carnal copulation, ſhe would ſhew him where his Mares and Chariot were: whereunto he conſented, and begat upon her three Sons, famous among Poetical Writers: Namely, *Agathyrſus*, *Gelonus*, and *Scythus*: but I will not proſecute either the names, or theſe fables any further, and ſo I will proceed to the deſcription of Vipers. The colour of Vipers is ſomewhat yellowiſh, having upon their skin many round ſpots, their length about a cubit, or at the moſt three palms. The tail curled, at the end very ſmall and ſharp, but not falling into that proportion equally by even attenuation, growing by little and little, but unevenly ſharped on the ſudden from thickneſſe to thinneſſe. It is alſo without fleſh, conſiſting of skin and bone, and very ſharp. The head is very broad, compared with the body, and the neck much narrower then the head: the eyes very red and flaming, the belly winding, upon which it goeth all in length, even to the tail, and it goeth quickly and nimbly: ſome affirm that it hath two canine teeth, and ſome four. And there is ſome difference betwixt the male and female; the female hath a broader head; the neck is not ſo eminent, a ſhorter and thicker body, a more extended tail, and a ſofter pace, and four canine teeth. Again, the male hath a narrower head, a neck ſwelling or ſtanding up, a longer and thinner body, and a ſwifter pace or motion, ſo that in the Pictures propoſed in this diſcourſe: the firſt of them are for the male, and the laſt for the female & this is the peculiar outward difference betwixt the male and the female
Cardan. Vipers. *Avicen* ſaith beſides, that the tails of Vipers make a noiſe when they go or move. Thoſe are taken to be the moſt generous and lively, that have the broadeſt and holloweſt head like a Turbot, quick and lively eyes, two canine teeth, and a griſtle or claw in the noſe or tail; a ſhort body or tail, a pale colour, a ſwift motion, and bearing the head upward. For the further deſcription of their ſeveral parts. Their teeth are very long upon the upper chap, and in number upon either ſide four, and thoſe which are upon the neather gum are ſo ſmall, as they can ſcarce be diſcerned, until they be rubbed and preſſed; but alſo it is to be noted, that while they live, or when they be dead, the length of their teeth cannot appear, except you take from them a little bladder, in which they lie concealed. In that bladder they carry poyſon, which they infuſe into the wound they make with their teeth: they have no ears, yet all other living creatures that generate their like, and bring forth out of their bellies have ears, except this, the Sea-calf, and the Dolphin, yet in ſtead hereof, they have a certain griſtly cave or hollowneſſe in the ſame place where ears ſhould ſtand. The womb and place of conception (ſaith *Pliny*) is double, but the meaning is, that it is cloven as it is in all females, (eſpecially Women and Cows.) They conceive Egges, and thoſe Egges are contained neer their reins or loins. Their skin is ſoft, yeelding alſo to any ſtroke; and when it is fleyed off from the body, it ſtretcheth twice ſo big as it appeared while it covered the living Serpent: To conclude, *Phyſiologus* writeth, that their face is ſomewhat like the face of a man, and from the

Navel it reſembleth a Crocodile, by reaſon of the ſmall paſſage it hath for his egeſtion which exceedeth not the eye of a Needle. It conceiveth at the mouth. And thus much for the deſcription in general.

There is ſome difference among this kind alſo, according to the diſtinction of place wherein they live, for the Vipers in *Æthiopia* are all over black like the men, and in othes Countreys they differ in colour, as in *England*, *France*, *Italy*, *Greece*, *Aſia*, and *Ægypt*, as writeth *Bellonius*. There is ſcarce any Nation in the World wherein there are not found ſome Vipers. The people of *Amyclæ* which were of the *Grecian* bloud, drove away all kind of Serpents from among them, yet they had Vipers which did bite mortally; and therefore could never be cured, being ſhorter then all other kinds of Vipers in the World.

Herodotus.

Likewiſe in *Arabia*, in *Syagrus*, the ſweet Promontory of Frankincenſe, the *European* Mountaines, *Seiron*, *Pannonia*, *Aſelenus*, *Corax*, and *Riphæus*: the Mountaines of *Aſia*, *Ægages*, *Bucarteron*, and *Cercaphus*, abound with Vipers. Likewiſe *Ægypt*, and in all *Africa* they are found alſo, and the *Africans* affirm, (in deteſtation hereof) that it is not ſo much *Animal*, as *Malum naturæ*: that is, A living Creature, as evill of Nature: To conclude, they are found in all *Europe*. Some have taken exceptions to *Crete*, becauſe *Ariſtotle* writeth, that they are not found there, but *Bellonius* affirmeth, that in *Crete* alſo he ſaw Vipers which the Inhabitants call by the name of *Cheudra*, which ſeemeth to be derived from the Greek *Echidna*. At this day it is doubted whether they live in *Italy*, *Germany*, or *England*, for if they doe, they are not knowne by that name: yet I verily think that we have in *England* a kinde of yellow Adder which is the Viper that *Bellonius* ſaw here, for I my ſelfe have killed of them, not knowing at that time the difference or ſimilitude of Serpents, but ſince I have perceived to my beſt remembrance that the proportion and voyce of it did ſhew that it was a Viper. The moſt different kinds of Vipers are found in *Ægypt* and *Aſia*.

Concerning the quantity, that is the length and greatneſſe of this Serpent, there is ſome difference, for ſome affirme it to be of a cubit in length, and ſome more, ſome leſſe. The Vipers in *Europe* are very ſmall, in compariſon of them in *Africa*, for among the *Troglodytes* (as writeth *Ælianus*) they are fifteen cubits long, and *Nearchus* affirmeth as much of the *Indian* Vipers; *Ariſtobulus* alſo writeth of a Viper that he ſaw one, which was nine cubits long, and one hand breadth: & ſome again (as *Strabo*) affirm, that they have ſeen Vipers of ſixteen Cubits long, and *Nicander* writeth thus of the Vipers of *Aſia*;

Fert Aſia ultra tres longis qui tractibus ulnas
Se tendant, rigidum quales Bucarteron, atque
Arduus Aegagus, & celſus Cercaphus intra
Se multos refovet.
In Engliſh thus;
Such as Aſia yeelds in length, as are three elles,
In Bucarteron ſteepy rough, theſe Vipers flouriſh,
Hard Egagus and high Cercaphus cels,
Within their compaſſe many ſuch do nouriſh.

Others there be in *Aſia* ſixteen foot long, and ſome there be again twenty, as in the Golden *Caſtiglia*, where their heads are like the heads of Kids. There be ſome that make difference betwixt *Echis* and *Echidna*, becauſe one of them when it biteth, cauſeth a convulſion, and ſo doth not the other, and one of them maketh the wound look white, the other pale, and when the *Echis* biteth you ſhall ſee but the impreſſion of two teeth, and when the *Echidna* biteth you ſhall ſee the impreſſion of more teeth. But theſe differences are very idle, for the variety of the pain may ariſe from the conſtitution of the body, or the quantity of the poyſon, and ſo likewiſe of the colour of the wound, and it is already ſet down, that the *Echis* or Male-Viper hath but two Canine teeth, but the other, namely, the *Echidna* hath four: thus ſaith *Nicander*;

Scaliger.
Cardan.
Ælianus.

Maſculus emittit, notus color, ipſe caninos
Binos perpetuo monſtrat, ſed fœmina plures.
Which may be engliſhed thus;
The Male two canine teeth, whoſe colour well is known,
But in the Female more continually are ſhown.

But yet the Male hath beſide his Canine teeth, as many as hath the Female: and beſides the Male is known from the Female, as the ſame *Nicander* writeth, becauſe the Female when ſhe goeth, draweth her tail as though ſhe were lame, but the Male more manlike and nimble, holdeth up his head, ſtretcheth out his tail, reſtraineth the breath of his belly, ſetteth not up his Scales (as doeth the Female;) and beſides, draweth out his body at length.

The Meate of theſe Vipers are green Hearbes, and alſo ſometimes living Creatures: and namely, Hore-flies, Cantharides, *Pithiocampes*, and ſuch other things as they can come by, for theſe are fit and convenient meat for them. *Ariſtotle* writeth, that ſometimes alſo they eat Scorpions, and in *Arabia* they not onely delight in the ſweet juyce of *Balſam*, but alſo in the ſhadow of the ſame. But above all kinds of drink, they are moſt inſatiable of wine. Sometime they make but little folds, and ſometime greater,

Galen.

greater, but in their wrath their eies flame, they turn their tailes and put forth their double tongue. In the winter-time as we have ſaid already, they live in the hollow Rocks, yet *Pliny* affirmeth, that then alſo they enter into the earth, and become tractable and tangible by the hands of man, for in the cold weather they are nothing ſo fierce as they are in the hot, and in the Sommer alſo they are not at all times alike furious, but like to all other Serpents. They are moſt outragious in the Canicular daies, for then they never reſt, but with continual diſquiet move up and down till they are dead or emptied of their poyſon, or feel an abatement of their heat. Twice in the year they caſt their ſkins, that is to ſay, in the Spring, and in the Autumn: and in the ſpring time when they come out of their hole or winter lodgings, they help the dimneſſe of their eye-ſight by rubbing their eyes upon fennel. But concerning their copulation and generation, I find much difference among writers: wherefore in a matter ſo neceſſary to be known, I will firſt of all ſet down the opinion of other men, aſwell Hiſtorians as Poets, and then in the end and concluſion, I will be bold to interpoſe my own judgment for the better information of the Reader. *Herodotus* in his *Thalia* writeth, that when the Vipers begin to rage in luſt, and deſire to couple one with another, the Male cometh and putteth his head into the mouth of the female, who is ſo inſatiable in the deſire of that copulation, that when the male hath filled her with all his ſeed-genital, and ſo would draw forth his head again, ſhe biteth it off, and deſtroyeth her husband, whereby he dieth and never liveth more: but the female departeth and conceiveth her young in her belly, who every day according to natures inclination, grow to perfection and ripeneſſe, and at laſt in revenge of their fathers death, do likewiſe deſtroy their mother, for they eate out her belly, and by an unnatural iſſue come forth into the light of this world: and this thing is alſo thus witneſſed by *Nicander*;

Ariſtotle.

Ariſtotle.

Avicenna.

Cum durum fugiens morſu igneſcentis echidnæ
Frendit ecbis, vel ubi fervente libidinis æſtu
Sævo dente ſui reſecat caput illa mariti:
Aſt ubi poſt vegetam ceperunt pignora vitam,
Jam propinqua adſunt maturi tempora partus,
Indignam chari mortem ulciſcentia patris,
Eroſa miſeræ naſcuntur matris ab alvo.

In Engliſh thus;

When the male Viper gnaſheth, avoyding females bite,
Whoſe fiery rage is all on ardent luſt,
Yet when he burnes for copulation right,
Her cruel tooth doth Husbandhead off cruſh.
But yet alaſſe, when ſeeds begins to live,
And birth of young ones ripen in her womb,
Then they for Fathers death a full revenge do give,
Eating forth their wretched mothres ſtrong.

Vnto this agreeth *Galen*, *Iſidore*, *Plutarch*, *Ælianus*: and *Lucan* who writeth;

Viperei coeunt abrupto corpore nati

That is to ſay:

The geniture of Vipers blood
Engender, breaking bodies good.

Pliny agreeth with the reſidue for the death of the Male in carnal copulation, but he differeth in this, about the Female, affirming that when the young Vipers grow ripe and perfect in their Mothers belly, ſhe caſteth forth every day one for three daies together, (for her number is ſometimes twenty) at laſt the other, impatient of delay, gnaw out her guts and belly, and ſo come forth, deſtroying their mother: And here is no great difference, for in the ſum and deſtruction of Father and Mother they all agree, and Saint *Jerom*, Saint *Baſil'*, and *Horus* do agree and ſubſcribe to the truth of theſe opinions. Thus we have ſhewed the opinions of the Ancient and firſt Writers: now it followeth that we ſhould likewiſe ſhew the opinions of the latter Writers, which I will performe with as great brevity and perſpicuity as I can. *Pierius* therefore writeth, that in his time there were Learned men deſirous to know the truth, who got Vipers, and kept them alive, both Males and Females, by ſhutting them up ſafe where they could neither eſcape out, nor do harme, and they found that they engendred, brought forth, and conceived like other Creatures, without death or ruine of Male and Female.

Amatus Luſitanus alſo writeth thus. The Male and Female Viper engender by wreathing their tails together, even to the one half of their body, and the other half ſtandeth upright, mutually kiſſing one another. In the Male there is a genital member in that part beneath the Navel, where they embrace, which is very ſecret and hidden, and againſt the ſame is the Females place of conception, as may appear manifeſtly to him that will look after the ſame; and therefore all the Philoſophers and Phyſitians have been deceived, that have wrote they have conceived at their mouth, or that the Male periſhed at the time of engendering, or the Female at the time of her delivery. Thus ſaith *Amatus*.

Theophraſtus he likewiſe writeth in this manner; The young Vipers do not eate out their way, or open with their teeth their Mothers belly, nor (if I may ſpeak merrily) make open their own paſſage by breaking up of the doors of their Mothers womb, but the womb being narrow, cannot contain them; and therefore breaketh of it own accord: and this I have proved by experience, even as the ſame falleth out with the fiſh called *Acus*: and therefore I muſt crave pardon of *Herodotus*, if I affirm his relation of the generation of Vipers to be meerly fabulous. Thus far *Theophraſtus*.

Apollonius alſo writeth, that many have ſeen the old Vipers licking their young ones like other Serpents.

Thus have I expreſſed the different judgements of ſundry Authors both new and old touching the generation of Vipers, out of which can be collected nothing but evident contradictions, and unreconcileable judgements, one mutually croſsing another. So as it is unpoſſible that they ſhould be both true, and therefore it muſt be our labour to ſearch out the truth, both in their words, and in the conference of other Authors. Wherefore to begin, thus writeth *Ariſtotle*. The Viper amongſt other Serpents, almoſt alone bringeth forth a living creature, but firſt of all ſhe conceiveth a ſoft egge of one colour, above the egges lieth the young ones folded up in a thin skin, and ſome-times it falleth out, that they gnaw in ſunder that thin ſkin, and ſo come out of their mothers belly all in one day, for ſhe bringeth forth more then twenty at a time. *Cælius.*

Out of theſe words of *Arſtotle*, evilly underſtood by *Pliny* and other ancient Writers, came that errour of the young Vipers eating their way out of their mothers belly, for in ſtead of the little thin skin which *Ariſtotle* ſaith they eat thorough, other Authors have turned it to the belly, which was clean from *Ariſtotles* meaning. And another error like unto this, is that wherein they affirm, that the Viper doth every day bring forth one young one, ſo that if ſhe hath twenty young ones in her belly, then alſo ſhe muſt be twenty dayes in bringing of them forth.

The words of *Ariſtotle* from whence this error is gathered, are theſe, *Tectei de en mia emera kathon, Tictei de pleo he eikoſi*, which are thus tranſlated by *Gaza*, *Parit enim ſingulos diebus ſingulis, plures quam viginti numero*: That is to ſay, ſhe bringeth forth every day one, more then twenty in number. But this is an abſurd tranſlation, and agreeth neither with the words of *Ariſtotle*, nor yet with his mind, for his words are theſe: *Parit autem una die ſingulos, parit autem plus quam viginti numero* That is to ſay in *Engliſh*, ſhe bringeth forth every one in one day, and ſhe bringeth forth more then twenty: ſo that the ſenſe of theſe words ſhall be; that the Viper bringeth forth her young ones ſeverally, one at a time, but yet all in a day.

But concerning her number, neither the Philoſopher, nor yet any man living, is able to define and ſet it down certain, for they vary, being ſometimes more, and ſometimes fewer, according to the nature of other living creatures. And although the Viper do conceive egges within her, yet doth ſhe lay them after the manner of other Serpents, but in her body they are turned into living Vipers, and ſo the egges never ſee the ſun, neither doth any mortal eye behold them, except by accident in the diſſection of a female Viper when ſhe is with young. I cannot alſo approve them that do write, that one, namely the Viper, among all Serpents, bringeth forth her young ones alive, and perfect into the world, for *Nicander* and *Grevinus*, do truly affirm, with the conſtant conſent of all other Authors, that the horned Serpent called *Ceraſtes*, of which we have ſpoken already, doth likewiſe bring forth her young ones alive. And beſides, *Herodotus* writeth of certain winged-Serpents in *Arabia*, which do bring forth young ones as well as Vipers, and therefore it muſt not be concluded with apparent falſhood, that onely the Viper bringeth her young ones perfect into the world.

The like fable unto this, is that general conceit of the copulation together, betwixt the Viper and the Lamprey; for it is reported that when the Lamprey burneth in luſt for copulation, ſhe forſaketh the waters, and cometh to the Land, ſeeking out the lodging of the male Viper, and ſo joyneth herſelfe unto him for copulation. He againe on the other ſide, is ſo tickled with deſire hereof, that forſaking his own dwelling and his own kind, doth likewiſe betake himſelfe unto the Waters and Rivers ſides, where in an amorous manner, he hiſſeth for the Lamprey, like as when a young man goeth to meet and call his Love; ſo that theſe two creatures, living in contrary elements the earth and the water, yet meet together for the fulfilling of their luſts in one bed of fornication. Upon which Saint *Baſill* writeth in this manner: *Vipera infeſtiſſimum animal eorum quæ ſerpunt cum muræna congreditur, &c.* that is to ſay, the Viper a moſt pernicious enemy to all living creeping things, yet admitteth copulation with the Lamprey, for he forſaketh the Land, and goeth to the water-ſide, and there with his hiſſing voyce, giveth notice to the other of his preſence, which ſhe hearing, inſtantly forſaketh the deep waters, and coming to the Land, ſuffereth herſelf to be imbraced by that venemous beaſt. Alſo *Nicander* writeth thus thereof in his verſes.

Fama eſt, ſi modo vera, quod hæc ſua paſcua linquat,
Atque eat in ſiccum cogente libidine littus,
Et cum Vipereo coiens ſerpente gravetur,

Which may be engliſhed thus;

Fame ſaith (if it be true) that ſhe her feed forſakes,
I mean the ſhore, and goes upon dry land,
Where for her luſt the Viper-male ſhe takes,
In fleſhly coiture to be her huſband.

But this opinion is vaine and fantaſticall, as *Pliny* and divers others have very learnedly proved, for the Lamprey cannot live on the Land, nor the Viper in wet places, beſides the waters: and therefore, beſides the impoſsibility in nature, it is not reaſonable that theſe will hazard their own lives, by forſaking their own elements for the ſatiſfaction of their luſts, there being plenty of either kinds to work upon, that is to ſay, both of female Vipers in the Land, to couple with the male, and male Lampreys in the water, to couple with the female.

Although I have elſe-where confuted this error, yet I muſt here again remember that which is ſaid already. The occaſion of this fable is this; the male Lamprey is exceeding like a Viper, for they want feet, and have long bodies, which ſome one by chance ſeeing in copulation with his female, did raſhly judge it to be a Serpent becauſe of his likeneſſe, as afore-ſaid; and therefore they deviſed a name for it, calling it *Myrus*, which ſome have made a kind of Viper, and others a Snake: but *Andreas* hath notably proved againſt *Archelaus*, that this *Myrus* neither is nor can be any other then the male Lamprey: and ſo I will conclude, that neither Vipers ingender with Lampreys, nor yet the female Vipers kill the male in copulation, or that the young ones come into the world by the deſtruction of their dams.

Ælianus. *Strabo.*

In the next place we are to conſider, the antipathy and contrariety that it obſerveth with other creatures, and the amity alſo betwixt it and others. Firſt of all therefore it is certain and well known, what great enmity is betwixt man-kind and Vipers, for the one alwaies hateth and feareth the other: wherefore, if a man take a Viper by the neck, and ſpit in his mouth, if the ſpittle ſlide down into his belly, it dieth thereof, and rotteth as it were in a conſumption. Vipers alſo are enemies to Oxen, as *Virgill* writeth, *Peſtis acerba bonum pecorique aſpergere virus*: that is, a ſharp plague of Oxen, caſting his poyſon upon all other Cattel. They are alſo enemies to Hens and Geeſe, as *Columella* writeth, wherefore in ancient time they were wont to make ſure walls for the cuſtody of their pullen againſt Vipers. They are likewiſe enemies to the Dormouſe, and they hunt very greedily after their young ones, whereof *Epiphanius* in a diſcourſe againſt *Origen* writeth thus; When the Viper cometh to the neſt of a Dormouſe, and findeth there her young ones, ſhe putteth out all their eies, and afterwards feedeth them very fat, yet killeth every day one, as occaſion of hunger ſerveth; but if in the mean time a man, or any other creature do chance to eate of thoſe Dormice, whoſe eies are ſo put out by the Viper, they are poyſoned thereby. And this is a wonderfull work in nature, that neither the little Dormice receive harme by the poyſon, but grow fat thereby, nor yet the Viper be poyſoned herſelf while ſhe eateth them, and yet a man or beaſt which is a ſtranger unto it, dieth thereof.

All kind of Mice are as much afraid of Vipers, as they be of Cats, and therefore whenſoever they heare the hiſſing of a Viper, inſtantly they look to themſelves and their young ones. There is a kind of harmeleſſe Serpents called *Parea*, whereof I have ſpoken before in his proper place, which is an enemy unto Vipers, and that ſame which is harmleſſe unto men, killeth them. *Albertus* alſo telleth a ſtory of a Viper that climbed up into a tree, to the neſt of a Magpye, where-upon the old one was ſitting, this poore Pye did fight with the Viper, untill the Viper took her faſt by the thigh, ſo as ſhe could fight no more, yet ſhe ceaſed not to chatter and cry out to her fellowes to come and help her, whereupon the male Pye came, and ſeeing his female ſo griped by the Viper, he ceaſed not to peck upon his head untill the braines came out, and ſo the Viper fell down dead. This ſtory is alſo alledged by *Cardan*.

Ælianus.

The Scorpions and the Vipers are enemies one to another, for at Padua a Viper and a Scorpion (for the trial of this matter) were both included in a vial, where they continued fighting a little while, but at laſt they both died by one anothers poyſon. The Tortoyſe of the earth is alſo an enemy to the Viper, and the Viper to it, wherefore if it can get Origan, or wild-Savory, or Rue, it eateth thereof, and then is nothing afraid to fight with the Viper, but if the Tortoyſe can find none of theſe, then they die incontinently by the poyſon of the Viper, and of this there hath been triall, as both *Ariſtotle* and other Authors affirm.

And as there is this contrariety betwixt Vipers and other living creatures, ſo there is betwixt them and Plants of the earth, and this bleſſing God in nature hath beſtowed upon many beaſts, that when they feel themſelves to be hurt by one herb, they know another to cure them; as for example, Garlick is poyſon to the Viper, and therefore having taſted thereof ſhe dieth, except ſhe eat ſome Rue. A Viper being ſtrook with a Reede once, it amazeth her, and maketh her ſenſeleſſe, but being ſtook the ſecond time, ſhe recovereth and runneth away: and the like is reported of the Beech-tree, ſaying that it ſtayeth the viper, and ſhe is not able to go from it. But moſt marvailous is the antipathy betwixt the Viper and the Yew-tree, for it is reported by *Mercuriall*, that if you lay fire on the one ſide, and a peece of Yew on the other ſide, and then place a viper in the middle betwixt them both, ſhe will rather chuſe to runne thorow the fire, then to go over the branches of Yew.

Gallen. *Dioſcorid.* *Raſis,*

The Viper is alſo afraid of Muſtard-ſeed, for it beeing laid in her path, ſhe flieth from it, and if ſhe taſte of it, ſhe dieth. There is an herbe called *Arum*, if the hands or body of a man be anointed with the juyce of the root thereof, the viper will never bite him; the like is reported of the juyce of Dragons, expreſſed out of the leaves, fruit or root. It is alſo ſaid, that if a viper do behold a good Smaragde, her eyes will melt and fall out of her head. But above all other plants in the world, the Viper is moſt delighted with Vetches, and the Savyne tree, for in *Italy* (as *Cardan* writeth) there was once ſeen a great number of Vipers about a Savyne Tree, and many of them did climbe up and down upon that Tree.

There is no love betweene this Serpent and other creatures, ſave onely to his own kind, and therefore there are two things memorable in the nature of this ſavage Serpent, the one is the love of the male to the female, and the other of the female to her young ones. It is reported by Saint *Ambroſe* and Saint *Baſill*, that when the male miſſeth the female, he ſeeketh her out very diligently, and with a pleaſing and flattering noyſe, calleth for her, and when he perceiveth ſhe approcheth, he caſteth up all his venome, as it were in reverence of matrimonial dignity. The female on the other ſide, maketh much of her young ones, licking and adorning their ſkins, fighting for them unto death, both againſt men and beaſts. For this occaſion and ſome medicinal uſes, the Arabians counted Vipers holy Serpents, for by reaſon (as we have ſaid already)that the Vipers do haunt the Balſom-trees, whereof there be plenty in that countrey, they hold them for holy keepers of that precious fruite; wherefore they never kill them, but at the time of year when the Balſom is ripe, they come unto the trees bearing in their hands two woodden rules, which they ſmite one againſt another, by the noiſe whereof the Vipers are terrified and driven away, and ſo the Trees are freed for the Inhabitants to take the fruite thereof at their pleaſure.

Now foraſmuch as we read that *Porus* King of India ſent many great Vipers for a gift unto *Auguſtus*, it is profitable to expreſſe the meanes whereby Vipers are ſafely taken without doing any harme. Wherefore *Ariſtotle* writeth, that they are very much deſirous of Wine, and for that cauſe the Country-people ſet little veſſels of wine in the hedges and haunts of Vipers, whereunto the Vipers coming, eaſily drink themſelves tame, and ſo the Hunters come and kill them, or elſe ſo take them, as they are without danger of harm. *Pliny* reporteth, that in ancient time, the *Marſians* in *Lybia* did hunt Vipers, and never received harm of them, for by a ſecret and innate vertue, all Vipers and ſerpents are afraid of their bodies, as we have already ſhewed in other places. Yet *Galen* in his diſcourſe to *Piſo*, writeth that the *Marſians* in his time had no ſuch vertue in them, as he had often tried, ſave onely that they uſed a deceit or ſleight to beguile the people, which was in this manner following.

Long after the uſual time of hunting Vipers, they uſe to goe abroad to take them, when there is no courage nor ſcant any venom left in them, for the Vipers are then eaſily taken if they can be found: and them ſo taken, they accuſtome to their own bodies, by given them ſuch meats as doth evacuate all their poiſon, or at the leaſt-wiſe doth ſo ſtop up their teeth, as it maketh the harm very ſmall; and ſo the ſimple people being ignorant of this fraud, and ſeeing them apparently carrying Vipers about them, did ignorantly attribute a vertue to their natures, which in truth did not belong unto them. In like manner there were (as hath already in another place been ſaid)certain Iuglers in *Italy*, which did boaſt themſelves to be of the linage of Saint *Paul*, who did ſo deceitfully carry themſelves, that in the preſence and ſight of many people, they ſuffered Vipers to bite them without any manner of harm.

Others again when they had taken a Viper, did drown her head in mans ſpittle, by vertue whereof the Viper began to grow tame and meek. Beſides this, they made a certain oyntment which they ſet forth to ſale, affirming it to have a vertue againſt the biting of Vipers, and all other Serpents, which oyntment was made in this manner. Out of the oyl of the ſeed of Wild-radiſh, of the roots of Dragons, the juyce of Daffadil, the brain of a Hare, leaves of Sage, Sprigs of Bay, and a few ſuch other things, whereby they deceived the people, and got much money: and therefore to conclude, I cannot find any more excellent way for the taking and deſtroying of Vipers then that which is already expreſſed in the general diſcourſe of Serpents.

We do read that in *Egypt* they eat Vipers and divers other Serpents, with no more difficulty then they would do Eeles, ſo do many people both in the Eaſtern and weſtern parts of the New-found-lands. And the very ſelf-ſame thing is reported of the Inhabitants of the Mountaine *Athos*, the which meat they prepare and dreſſe on this manner. Firſt they cut off their heads and alſo their tailes, then they bowel them and ſalt them, after which they ſeethe them or bake them, as a man would ſeethe or bake Eeles, but ſometimes they hang them up and dry them, and then when they take them down again, they eat them with Oyl, Salt, Anyſeedes, Leeks and water, with ſome ſuch other obſervations. Whoſe diet of eating Vipers I do much pity, if the want of other food conſtrain them thereunto; but if it ariſe from the inſatiable and greedy intemperancy of their own appetites, I judge them eager of dainties, which adventure for it at ſuch a market of poyſon.

Now it followeth that we proceed to the handling of that part of the Vipers ſtory, which concerneth the venom or poiſon that is in it, which muſt begin at the conſideration of temperament of this Serpent. It is ſome queſtion among the learned, whether a Viper be hot or cold; and for anſwer hereof it is ſaid, that it is of cold conſtitution, becauſe it lieth hid, and almoſt dead in the Winter-time, wherein a man may carry them in his hands without all hurt or danger: and unto this opinion for this ſelf ſame reaſon, agreeth *Galen*. *Mercuriall* maketh a treble diverſity of conſtitution among Serpents, whereof the firſt ſort are thoſe that with their wound do infuſe a mortal poyſon that killeth inſtantly, and without delay: a ſecond ſort are thoſe that kill, but more leaſurely, without any ſuch ſpeed: and the third are thoſe whoſe poyſon is more ſlow in operation then is the ſecond, among which he aſſigneth the Viper. But although by this ſlowneſs of operation he would inforce the coldneſs of the poyſon, yet it is alwaies to be conſidered, that the difference of Vipers, and of their venom, ariſeth from the place and region in which they are bred, and alſo from the time of the yeer wherein they bite and wound, ſo that except they fortune to hurt any one during the time of the Canicular daies, (in which ſeaſon their poyſon is hotteſt, and themſelves moſt full of ſpirit) the ſame is but weak, and full of deadneſs. And again it is to be conſidered, whether the Viper harm in her mood and fury, for anger doth thruſt it forth more fully, and cauſeth the ſame to work more deadly.

Likewiſe the Region wherein they live, begetteth a more lively working ſpirit in the Serpent, and therefore before all other, the Vipers of Numidia are preferred, becauſe of the heat of that Country. Alſo their meat cauſeth in them a difference of poyſon, for thoſe that live in the woods and eat Toades, are not ſo vigorous or venemous, but thoſe that live in the mountaines, and eat the roots of certain herbs, are more poyſonful and deadly. And therefore *Cardan* relateth a ſtory, which he ſaith was told him by a *Phœnician*, that a Mountain-Viper chaſed a man ſo hardly, that he was forced to take a tree, unto the which when the Viper was come, and could not climbe up to utter her malice upon the man, ſhe emptied the ſame upon the Tree, and by and by after, the man in the tree dyed, by the ſavour and ſecret operation of the ſame.

Pauſanias.

But of the *Arabian* Vipers which haunt the Balſom-trees, I have read, that if at any time they bite, they onely make a wound like the pricks of yron, voide of poiſon, becauſe while they ſuck in the juyce of that tree, the acerbity and ſtrength of the venom is abated. About the Mountain *Helicon* in Greece, the poiſon alſo of Vipers is infirme and not ſtrong, ſo that the cure thereof is alſo ready and eaſie. But yet for the nature of Vipers poiſon, I can ſay no more then *Wolphius* hath ſaid, that it is of it ſelf and in it ſelfe conſidered, hot: and his reaſon is, becauſe he ſaw a combat in a glaſſe betwixt a Viper and a Scorpion, and they both periſhed one by the others poiſon. Now he ſaith that it is granted, the Scorpion to be of a cold nature, and his poiſon to be cold; therefore by reaſon of the antipathy whereby one died by the malice of another, it muſt needs follow that the Viper is hot, and her poiſon likewiſe of the ſame nature. For a Serpent of a cold nature, killeth not another of the ſame nature, nor a hot Serpent, one of his own kind, but rather it falleth out clean contrary, that the hot kill thoſe that are cold, and the cold Serpents the hotter.

Pliny.
Nicander.

All the Vipers that live neer the waters, are of more mild and meek poiſon then others. If there be any ſuch, but I rather beleeve there be none, but that the ſame Author which wrote of the Vipers of the water, did intend Serpents of the water. But concerning the poiſon of Vipers, there is nothing reported more ſtrange then that of *Vincentius Belluacenſis*, who writeth, that if a man chance to tread upon the reynes of a Viper unawares, it paineth him more then any venome, for it ſpreadeth it ſelf over all the body incurably. Alſo it is written, that if a woman with child chance to paſſe over a Viper, it cauſeth her to ſuffer abortment; and the Muſhroms or Toade-ſtooles which grow neere the dennes and lodgings of Vipers, are alſo found to be venemous.

The Scythians alſo do draw an incurable and unreſiſtable poiſon out of Vipers, wherewithall they anoint the ſharp ends of their darts and arrowes when they goe to warre, to the end that if it chance to light upon their adverſary, he may never any more do them harm. They make this poiſon in this manner. They obſerved the littering places and time of the Vipers, and then with ſtrength and Art, did take the old and young ones together, which they preſently killed, and afterward ſuffered them to lie and rot, or ſoake in ſome moiſt thing for a ſeaſon: then they took them and put them into an earthen pot filled with the bloud of ſome one man; this pot of mans bloud and Vipers they ſtopped very cloſe, ſo as nothing might iſſue out at the mouth, and then buried or covered it all over in a dunghil, where it rotted and conſumed a few daies, after which they uncovered it again, and opening it, found at the top a kind of watery ſubſtance ſwimming, that they take off, and mixe it with the rotten matter of the Viper, and hereof make this deadly poiſon.

We have ſhewed already, that there is outwardly a difference betwixt the biting wound of the Male and the Female Viper, for after the male hath bitten, there appeareth but two holes, but after the Female hath bitten, there appeareth foure; and this is alſo a great deal more deadly then is the biting of the male, according to the verſes of *Nicander* where he ſaith,

Porro ex Vipereo quod noris germine pejor
Fœmina: quæ veluti majori accenditur ira,
Sic vehemente magis fert noxia vulnera morſu,
Et plus gliſcenti ſe cauda & corpore volvit,
Unde citatior hæc ictos mors occupat artus.

Which may be engliſhed thus;

But of the Vipers brood the female is the worſt,
Which as it were with greater wrath doth burn: (curſt
And therefore when ſhe bites, makes bodies more ac-
Inflickting hurtful wounds, to vehemency turnd.
Rowling her bulke and taile more oft about,
Whereby a ſpeedier death doth life rid out.

But *Avicen* is directly contrary to this opinion, and ſaith, that as the bitings of male Dragons are more exitiall and harmful then are the females, ſo is it betwixt the biting of the male and female Viper. This contrarietie is thus reconciled by *Mercuriall*, namely, that it is true, that the wounds which the female maketh by her biting, being well conſidered, is more deadly then the wounds which the male giveth: yet for the proportion of the poiſon which the male venteth into the wound he maketh, it is more deadly then is the females: ſo that with reſpect of quantity: they both ſay true which affirm either the one or the other. But which ſoever is the greateſt, it ſkilleth not much, for both are deadly enough, as may appear by the common ſymptoms and ſignes which follow, and alſo death.

Mathiolus reporteth a hiſtory of a Country-man, who as he was mowing of graſſe, chanced to cut a Viper clean aſunder about the middle, or ſome-what nearer the head, which being done, he ſtood ſtill, and looked upon the dying diſſevered parts a little while, at laſt, either preſuming that it had no power left to hurt, or thinking it was dead, he took that part in his hand where-upon the head was; the angry Viper feeling his adverſaries warm hand, turned the head about, and bit his finger with all the rage, force, and venom that it had left, ſo that the bloud iſſued out. The man thus bitten for his boldneſſe, did haſtily caſt it away, and began to ſuck the wound, putting his hand to his mouth, which when he had done but a little while, he ſuddenly fell down dead.

The like ſtory unto this, is related by ***Amatus Luſitanus*** of another, which more boldly then wiſely, did adventure to take a live Viper into his hand upon a wager of money, but as the other, ſo this paid for his raſhnes, for the angry Viper did bite him as did the former, and he ſucked his wound as did the Country-man, and in like manner fell down dead.

By both which examples, we may well ſee the danger of the Vipers poiſon, ſo that if once it come into the ſtomack, and touch the open paſſage where the vitall parts goe in and out, it never ſtayeth long but death followeth. Wherefore ***Aetius*** ſaith well, that ſometimes it killeth within the ſpace of ſeven houres, and ſometimes again within the ſpace of three daies, and that reſpite of time ſeemeth to be the longeſt, if remedie be not had with more effectual ſpeed.

The ſignes or effects of the Vipers biting, are briefly theſe, firſt there iſſueth forth a rotten matter, ſometimes bloudy, and ſometimes like liquid or molten fatneſſe, ſometimes again with no colour at all, but all the fleſh about the ſore ſwelleth, ſometimes having a red, and ſometime a pale hiew or colour upon it, iſſuing alſo forth a corrupted mattery matter. Alſo it cauſeth divers little bliſters to ariſe upon the fleſh as though the body were all ſcorched over with fire, and ſpeedily after this, followeth putrefaction aud death.

The pain that cometh by this Serpents wounding, is ſo univerſal, that all the body ſeemeth to be ſet on fire, many pitiful noyſes are forced out of the parties throat by ſenſe of that pain, turning and crackling of the neck, alſo twinckling and wrying of the eyes, with darkneſſe and heavineſſe of the head, imbecillity of the loynes, ſometimes thirſting intolerably, crying out upon his dry throate, and again ſometimes freezing at the fingers ends, at leaſt ſo as he feeleth ſuch a pain. Moreover, the body ſweating a ſweat more cold then ſnow it ſelf,and many times vomiting forth the bilious tumors of his owne belly. But the colour going and coming is often changed, now like pale lead, then like black, and anon as green as the ruſt of braſſe, the gums flow with bloud, and the Liver it ſelf falleth to be inflamed,ſleepineſſe and trembling poſſeſſeth the body and ſeveral parts, and difficulty of making urine, with Feavers, neezing and ſhortneſſe of breath.

Theſe are related by ***Aetius***, ***Aegineta***, *Grevinus* and others, which work not alwaies in every body generally. but ſome in one, and ſome in another, as the humors and temperament of nature doth lead, and guide their operation. But I marvail from whence *Plato* in his *Sympoſium* had that opinion,that a man bitten and poiſoned by a Viper,will tel it to none,but onely to thoſe that have formerly taſted of that miſery: for although among other effects of this poiſon,it is ſaid that madneſs, or a diſtracted mind alſo followeth, yet I think in nature there can be no reaſon given of *Platoes* opinion, except he mean that the patient will never manifeſt his grief at all. And this howſoever alſo is confuted by this one ſtory of *Grevinus*. There was (as he writeth) a certain Apothecary which did keep Vipers, and it happened one day as he was medling about them, that one of them caught him by his finger, and did bite him a little, ſo as the prints of his teeth appeared as the points of needles. The Apothecary onely looked on it, and being buſied, either forgot, or (as he ſaid afterward) felt no pain for an hours ſpace: but after the hour, firſt his finger ſmarted and began to burn, and afterward his arm and whole body fell to be ſuddenly diſtempered therewith, ſo as neceſſity conſtrayning him, and opportunity offering it ſelf, he ſent for a Phyſitian at hand, and by his good adviſe. (thorow Gods mercy) was recovered, but with great difficulty; for he ſuffered many of the former paſſions and ſymptoms before he was cured.

Therefore by this ſtory, either *Plato* was in a wrong opinion, or elſe *Grevinus* telleth a fable,which I cannot grant, becauſe he wrote of his own experience, known then to many in the world, who would quickly have contradicted it: or elſe if he had conſented to the opinion of *Plato*, no doubt but in the relation of that matter, he would have expreſſed alſo that circumſtance.

Thus then we have, as briefly and plainly as we can, delivered the pains and torments which are cauſed by the poiſon of Vipers; now therefore it followeth, that we alſo briefly declare the vertue of ſuch Medicines, as we find to be applied by diligent and careful obſervations of many learned Phyſitians, againſt the venom of Vipers. Firſt of all they write, that the general rule muſt be obſerved in the curing of the poiſon of Vipers, which is already declared againſt other Serpents: namely, that the force of their poiſon be kept from ſpreading, and that may be done either by the preſent extraction of the poiſon, or elſe by binding the wounded member hard, or elſe by cutting it off, if it be in finger, hand or foot.

Galen reporteth, that when he was in *Alexandria*, there came to the City a Countryman which had his finger bitten by a Viper, but before he came, he had bound his finger cloſe to the palm of his hand, and then he ſhewed the ſame to a Phyſitian, who immediatly cut off his finger, and ſo he was cured. And beſides he telleth of another country-man, who reaping of Corne, by chance with his ſickle did hurt a Viper, who returned and did raze all his finger with her poiſonfull teeth. The man preſently conceiving his own peril, cut off his own finger with the ſame ſickle, before the poiſon was ſpred too far, and ſo was cured without any other Medicine.

Sometime it hapneth that the bite is in ſuch a part that it cannot be cut off, and then they apply a Hen cut in ſunder alive, and laid to as hot as can be, alſo one muſt firſt waſh and anoint his mouth with oyl, and ſo ſuck out the poiſon. Likewiſe the place muſt be ſcarified, and party fed and dieted with old Butter,and bathed in milk or Seawater,and be kept waking, and made to walk up and down.

In Vipera.

It were too long, and alſo needleſſe, to expreſſe all the medicines which by naturall meanes are prepared againſt the poiſon of Vipers, whereof ſeeing no reaſonable man will expect that at my hands; I will onely touch two or three cures by way of hiſtory, and for others, refer my Reader to Phyſitians, or to the Latine diſcourſe of *Caronus*. In *Norcheria*, the country of that great and famous *Gentilis* who tranſlated *Avicen*, there is a fountaine, into which if any man be put that is ſtung or bitten by a Serpent, he is thereof immediatly cured; which *Amatus Luſitanus* approveth to be very natural, becauſe the continual cold water killeth the hot poiſon. The ſame Author writeth, that when a little maid of the age of thirteen yeeres, was bitten in the heel by a Viper, the legge being firſt of all bound at the knee very hard, then becauſe the maid fell diſtract, firſt he cauſed a Surgeon to make two or three deeper holes then the Viper had made, that ſo the poiſon might be the more eaſily extracted; then he ſcarified the place, and drawed it with cupping-glaſſes, whereby was exhauſted all the black blood, and then alſo the whole leg over, was ſcarified, and blood drawn out of it, as long as it would run of it own accord. Then was a plaiſter made of Garlick, and the ſharpeſt Onions roſted, which being mixed with Triacle, was laid to the bitten place. Alſo the maid drank three daies of Treacle in wine, and foure houres after a little broth made with Garlick.

The ſecond day after the abatement of the pain, he gave her the juyce of Yew-leaves faſting, which he commendeth as the moſt notable Antidote in this kind, and ſo made a ſecond plaiſter, which lay on three days more, and in the mean time ſhe drank faſting every day that juyce of Yew-leaves, whereby her trembling and diſtracted eſtate was abated, but from the wounded place ſtill flowed matter, and it looked black. Then the four next daies, the ſaid matter was drawn out by a linnen cloth, wherein was Goates dung, powder of Lawrell, and *Euphorbium* in Wine, all mixed together, and afterward he made this ointment, which did perfectly cure her, *Rec*: of long *Ariſtolochii* two ounces, of Briony and Daffadil one ounce, of Galbanum and Myrrhe, of each one ounce; with a convenient quantity of oyle of Baies and Waxe. This applied to the bitten place in a linnen cloth, and tentures twice a day, did perfectly recover her health within a month.

Ambroſius Paræus cured himſelfe, with binding his finger hard that was bitten, and applying to it Triacle diſſolved in *Aqua vitæ*, and drunk up in lint or bumbaſt: and he adviſeth in ſtead of old Triacle, to take Mithridate. *Geſner* ſaith, that he ſaw a maid cured of the eating of Vipers fleſh, by being conſtrained to drink Wine abundantly. *Theophraſtus* and *Aſclepiades* do write, that many are cured by the ſound of good Muſick, as the like is already ſhewed, in the cure of the poiſon of the *Phalangium*: and no marvail, for *Iſmenias* the Theban affirmeth, that he knew many in *Bœtia*, that were cured of the Sciatica, by hearing of the muſical ſound of a good pipe.

Of the Medicines which may be made of the Viper.

THe eating of Vipers is an admirable remedy againſt the Leproſie. And being prepared after that ſort as was mentioned immediatly before in the former Section, they are miniſtred to the ſick perſon ſitting in the ſun, yet his head muſt be well covered or ſhadowed. Neither indeed to eat Vipers once alone, or twice is ſufficient, but it muſt be done often, ſith it is without danger, and moreover bringeth great commodity. And let the Vipers be new, and taken out of moiſt places, for thoſe which are bred neer the Sea, are very thirſty and dry. The broth alſo of ſod Vipers, is for ſuch perſons good ſupping meat.

The fleſh of Vipers is in temperature apparantly hot and dry, and purgeth the whole body by ſweat; here-upon many ſore tormented with Leproſie, by eating and drinking them have been cured.

Averroes ſaith, the fleſh of *Tyrus* clenſeth Leproſie, becauſe it driveth the matter thereof to the skin, and therefore they that drink it, fall firſt into the paſſion of *Tyria*, that is, the pilling of the skin, and after are cured of it.

Funamellus.

Chuſe the Vipers of the Mountain, eſpecially being white, and cut off their heads and tailes at once very ſpeedily, and then if the iſſue of blood be plentiful, and they continue alive, and wallow to and fro a long time, theſe are good. After their beheading, let them be made clean and ſod, and let the diſeaſed party eat of them, and of their broth.

And by the drinking of wine wherein a Viper dieth or liveth, certain have been cured accidentally, or by an intent to kill them.

Avicen.
Amatus.

The Leaper muſt firſt drink the broth of Vipers decocted, in manner as afore-ſaid, then let him eat the fleſh, no otherwiſe then as mutton or fowles, which daily men dine with, but faſting and in the morning this fleſh muſt be eaten, half a Viper at once, and ſometime a whole Viper, according to the ſtrength of the party diſeaſed. After the eating whereof, he muſt not eat or drink in the ſpace of ſix houres: but if he doe ſweat, it is moſt expedient that in his ſweat he look to himſelf very carefully. And the skin is wont to flea off from the Leaper, as it uſually befalleth Serpents.

Galen.

A man may eaſily ſee the fleſh of Vipers to be hot and dry, when they are dreſſed as Eels. And that they purge the whole body thorow the skin, (thou mayeſt learne even by thoſe things, which my ſelf being a young man, had experience of in our Countrey of *Aſia*, which thing ſeverally and in order I ſhall relate.

A certain man infected with the diſeaſe which men call *Elephas*, that is, Leproſie, for a time converſed ſtill with his companions, till by his company and converſation, ſome of them were infected with the contagion of the diſeaſe, and he now became lothſome to ſmell, and filthy to ſight. Building therefore a cottage for him neer the Village, on the top of a bank, hard by a Fountain, there they place this man, and daily bring to him ſo much meat as was ſufficient to ſuſtain life. But at the riſing of the Dog-ſtar, when by good hap, Reapers reaped not far from that place, very fragrant Wine was brought for them in an earthen veſſel: he that brought it, ſet it down neer the Reapers, and departed; but when the time was come that they ſhould drink it, a young man taking up the veſſel, that according to their manner having filled a boul, he might mingle the Wine with a competent meaſure of water, he poured the Wine into the bowl, and together with the Wine fell out a dead Viper.

Wherefore the Reapers amazed thereat, and fearing leſt if they drank it, they ſhould receive ſome harm thereby, choſe rather indeed to quench their thirſt by drinking water: but when they departed thence, of humanity and in piety, gave the Wine to this Leper, ſuppoſing it to be better for him to die, then to live in that miſery. Yet he when he had drunk it, in a wonderful manner was reſtored to his health; for all the ſcurf of his skin fell off as the ſhales of tender ſhelled creatures, and that which remained, appeared very tender, as the skin of Crabs or Locuſts, when their outward ſhell is taken away.

Another example by a chance not much unlike, hapned in *Myſia*, a Countrey of *Aſia*, not far from our City. A certain Leper went to waſh himſelf in Spring-water, hoping thereby to receive ſome benefit. He had a maid-ſervant, a very fair young woman, importuned by divers ſuters: to her the ſick man committed both certain other things pertaining to the houſe, and alſo the ſtore-houſe. When they therefore were gone into the room, to which a filthy place and full of Vipers adjoyned, by chance one of them fell into a Veſſel of Wine there negligently left, and was drowned. The Maid eſteeming that a benefit which Fortune offered, filled that Wine to her Maſter, and he drank it, and thereby in like ſort as he that lived in the Cottage, was cured.

Theſe are two examples of experiment by caſual occaſion. Moreover, I will adde alſo a third, which proceeded from our imitation. When one was ſick of this diſeaſe, in minde more then the common ſort Philoſophical, and deſpiſing death, took it exceeding grievouſly, and ſaid it were better once to ſuffer death, then to live ſo miſerable a life: and drinking Wine ſo mingled with poyſon, he became a Leper; and afterward we cured his Leproſie by our accuſtomed medicines.

Alſo a fourth man took Vipers alive, but that man had only the beginning of this diſeaſe; therefore our care and induſtry was very ſpeedily to reſtore him to health: wherefore having let him bloud, and by a medicine taken away melancholy, we bad him uſe the Vipers he had taken, being prepared in a pot after the manner of Eels. And he was thus cured, the infection evaporating through the skin.

Laſtly alſo, a certain other man very rich, not our Country-man, but of the middle of *Thracia*, admoniſhed by a dream, came to *Pergamus*, where God commanded him by a dream, that he ſhould daily drink the medicine which was made of Vipers, and outwardly he ſhould anoint his body, and not many days after, his diſeaſe became the Leproſie: And again alſo, this infirmity was afterward cured by the medicines which God commanded.

Galen.

Matthew Grady fed Chickins and Capons with the broth and fleſh of Vipers mingled with bread, till they caſt their feathers, purpoſing by them to cure the Leproſie.

Hellideus.

A certain Noble-woman in this City, infected with this malady (the Leproſie) after divers infortunate attempts of many, came to my hands, in whoſe cure, when generous medicines availed nothing, at laſt, with conſent of her husband, I purpoſed to try her with Vipers fleſh: whereupon a female Viper being cleanſed and prepared after that ſort as *Galen* preſcribeth in his Book *De Theriaca*, mingling the fleſh of the Viper with Galangal, Saffron, &c. I ſod her very well: then I took a Chicken, which I commanded well to be ſod in the juyce and broth of the Viper. And leſt ſhe ſhould take any harm thereby, I firſt miniſtred unto her Mithridate, then the Chicken with the broth, by eating whereof ſhe ſaid ſhe felt herſelf better: Which when I ſaw, I took another male Viper, whom I ſod alone without adding any other thing, and the broth thereof I miniſtred to her three days, whereupon ſhe began to ſweat extreamly, the ſweat I reſtrained by ſyrup of Violets and pure water. After ſix days, ſcales fell from her, and ſhe was healed. Moreover, ſhe ſoon after conceived a man-childe, having been barren before the ſpace of forty years.

Pliny.

Antonius Muſa a Phyſitian, when he met with an incurable Ulcer, he gave his patients Vipers to eat, and cured them with marvailous celerity. When the ſervants of *Craterus* the Phyſitian fell into a ſtrange and unuſual diſeaſe, that his fleſh fell from his bones, and that he had proved many medicines which profited him nothing, he was healed by eating a Viper dreſſed as a fiſh.

Porphyrius.

Vipers fleſh if it be ſod and eaten, cleareth the eyes, helpeth the defects of the ſinews, and repreſſeth ſwellings.

Dioſcorides.

They ſay they that eat Vipers become louſie, which is not ſo, though *Galen* affirm it. Some adde them to live long who eat that meat, to wit, Vipers. *Iſogonus* affirmeth the *Cirni*, a kinde of *Indians*, to live an hundred and forty years. Alſo he thinketh the *Ethiopians*, and *Seres*, and the Inhabitants of Mount *Athos* to be long lived, becauſe they eat Vipers fleſh.

Pliny.

The *Scythians* cleave the head of the Viper betwixt the ears, to take out a ſtone, which they ſay ſhe devoureth when ſhe is affrighted.

The heads of Vipers burnt in a pot to aſhes, and after beaten together with the groſſeſt decoction of bitter Lupines, & ſpred as an ointment on the temples of the head ſtayeth the continual rheume of the eys. Their aſhes lightly beaten alone, and applyed as a dry medicine for the eys, greatly amendeth a dim ſight.

Aetius. The head of a Viper kept dry and burned, and after being dipped in Vinegar and applyed, cureth wilde fire.

Albertus. The gall of the Viper doth wonderfully cleanſe the eye, and offendeth not by poyſon. It is manifeſt againſt the ſtinging of all Serpents though incurable, that the bowels of the very Serpents do help and avail; and yet they who at any time have drunk the liver of a ſod Viper, are never ſtung of Serpents.

Pliny. The fat of a Viper is effectual againſt the dimneſſe and ſuffuſions of the eyes, mixed with Roſin, Honey-attick, and a like quantity of old Oil.

For the Gowt they ſay it availeth much to anoint the feet with the fat of Vipers. Vipers fat healeth them that are burned.

Galen. The ſlow of the Viper cureth the Ring-worm. The skin of the Viper beaten to powder, and laid upon the places where the hair is fallen, it doth wonderfully reſtore hair again.

Aetius. *Avicenna.* Some extend and dry whole Vipers, and after beat them to powder, and miniſter them in drink againſt the Gowt. Others about the riſing of the Dog-ſtar, cut off the head and tail of Vipers, and burn the middle, then they give thoſe aſhes to be drunk 21. days, ſo much at a time as may be taken up with three fingers, and ſo cure the ſwelling in the neck. Joynts pained with the Gowt, are profitably anointed with Oyl wherein a Viper hath been ſodden, for this cureth perfectly.

Leonell. Faventin. The making of the Oyl of Vipers, is deſcribed in theſe words; Take three or four Vipers, cut off their extream parts, the head and the tail, in length four fingers, divide the reſt into four gobbets, and put them in a pot open above and below, which pot muſt be put into another greater pot; then the mouth of them muſt be well ſhut with clay, that they breath not forth; then put them into a Caldron full of ſeething water, and there let them continue boiling two hours in thoſe pots: then will diſtil a liquor from the Vipers, which were in the pot open above and below, with that Oily liquor anoint the members of the party moleſted with the Palſie, for by a ſecret property it cureth the grief of that diſeaſe.

Of Triacle and Trochuks of Vipers.

Galen. *Theriace* or Triacle, not only becauſe it cureth the venomous biting of Serpents, but alſo becauſe the Serpents themſelves are uſually mingled in the making thereof, fitly is ſo named of both ſignifications. Here alſo we will inſert ſomething concerning Trochuks of Vipers, which are mingled in the making of Triacle.

Triacle is very ancient, and hath always very carefully, and not without ambition, been refined by the Phyſitians, till *Andromochus Nero* his Phyſitian, added the fleſh of Vipers, as the full accompliſhment of this drug. The fleſh of Vipers alone is mingled in Triacle, and not the fleſh of other Serpents, becauſe all the reſt have ſomething malignant more then Vipers. Vipers are thought to have leſſe poyſon in them then other Serpents.

Vipers for Triacle muſt not be taken at any time, but chiefly in the beginning of the Spring, when having left their dens, they come forth into the Snn-ſhine, and as yet have not poyſon much offenſive.

Avicen. Take female Vipers, for we muſt take heed how we take male Vipers for the confection of Antidotes. For Trochuks all Vipers are not convenient, but thoſe which be yellow, and of the yellow, the females only.

Galen. Vipers great with young you muſt refuſe, for being pregnant, they are more exaſperate then themſelves at other times.

Aetius. Of Vipers be made Trochiſces, which of the *Grecians* are called *Theriaci*, four fingers being cut off at either end, and the inwards taken out, and the pale matter cleaving to the back-bone: the reſt of the body muſt be boiled in a diſh in water, with the herb Dill, the back-bone muſt be taken out, and fine flowre muſt be added. Thus theſe Trochuks being made, they muſt be dryed in the ſhade, apart from the Sun-beams, and being ſo prepared, they be of very great uſe for many medicines.

The uſe of Triacle is profitable for many things, for not only by his own nature it availeth againſt the biting of venomous creatures and poyſons, but alſo it is found by experience, to help many other great infirmities. For it eaſeth the Gowt and pain in the joynts, it dryeth fluxes, it very much profiteth men moleſted with the Dropſie, leprous and melancholick perſons, thoſe that have Quartane Agues, or the Jaundiſe, thoſe that have a weak voice, or that ſpet bloud: thoſe that are troubled with aking reins, with Dyſentery, with the ſtone, with ſhort breath, with paſſion of the liver or milt, with choler, with heart-ach, with the Falling-ſickneſſe. It driveth all kinde of Worms out of the bowels It is the moſt ſoveraign remedy of the Plague.

Even to them that are in health the often uſe of it is wholeſome, for it promiſeth long life, and firm health, it conſumeth excrements, it ſtrengtheneth natural actions, it quickeneth the wit, and ſharpeneth all the ſenſes; it preſerveth the body from poyſon and other offences, and maketh it ſcarſe ſubject to danger by ſuch caſualties; it begetteth good bloud, it corrupteth the the air, and waters; neither alone doth it deliver from inſtant diſeaſes, but alſo preſerveth from thoſe that be imminent.

Of

Of EARTH-WORMS.

Doctor *Bonhams* diſcourſe of Worms.

ALthough there be many and ſundry ſorts of Worms which do contain in them ſome poyſonous quality, yet for all that, at this time my purpoſe is to diſcourſe eſpecially of Earth-worms, whereof ſome are bred only in the earth, and others among plants, and in the bodies of living creatures. Worms of the earth are termed by *Plautus* and *Columella Lumbrici*, peradventure as being derived *a Lubricitate*. They are called alſo *Terræ Inteſtina* of the *Latines*, as well becauſe they take their firſt beginning and breeding in the very bowels and inward parts of the Earth, as becauſe being preſſed and ſqueeſed betwixt the fingers or otherwiſe, they do void forth excrements after the faſhion of living beaſts that have intrails in them. The *Greeks* call them *Ges entera*; *Heſychius* calleth them *Embullous*; *Brunfelſius Otho* in his Phyſick *Lexicon* writeth, that they are uſually called in the *Cilician* tongue *Gaphagas*, fetching the derivation of the word *parà Tò gaian phágein*, for they feed upon earth. Of the Engliſhmen they are called *Meds*, and *Earth-worms*; of the *French*, *Vers de Terra*; of the *Germans*, *Eert wurm*, and *Erdwurmem*, *Melet*, *Ode Regenwurm*; of the *Belgians*, *Pier-wuorm*, or *Rengenwuorm*; of the *Italians*, *Lumbrichi*; of the *Spaniards*, *Lumbrizes*; of the *Polonians*, *Gliſti*; of the *Hungarians*, *Galiſza*; of the *Arabians* they are called *Charatin*. *Manardus* in his ſecond Book and 40. Epiſtle writeth, that in times paſt they were called *Oniſculi*, and *Niſculi*.

There are found eſpecially two ſorts of Earth-worms, which are either greater or leſſer. The greater Earth-worms are ſomewhat long, almoſt like in proportion and ſhape to thoſe round Worms which do breed in mens bodies. They are half a foot long at leaſt, and being ſtretched out in length they are found to be a foot long, they are of a whitiſh colour, and ſometimes though ſeldom of a bloudy hue: and for the moſt part they are all adorned with a chain about their necks, or rather they ſeem to wear a certain collar, wherein there is a little bloud contained, and they lack eyes and eye-ſight, as all ſorts of Worms do.

They breed of the ſlime of the earth, taking their firſt being from putrefaction, and of the fat moiſture of the ſame earth they are again fed and nouriſhed, and into earth at laſt are reſolved. When there falleth any ſhowre of rain, then this kinde of Worm creepeth ſuddenly out of the earth, whereupon old *Euclio* in *Plautus* being very careful of his pot of Gold, ſpeaketh aptly to his Drudge *Strobilus* in theſe words;

> *Foras, foras Lumbrice, qui ſub terra erepſiſti modo,*
> *Qui modo nuſquam campare bas, nunc autem cùm compares, peris.*

In Aulularia.

Which may be Engliſhed thus;

> *Away, away thou Worm, late from the earth crept out,*
> *Safe thou waſt unſeen, but ſeen, life fails I doubt.*

Here *Euclio* very properly termeth his Bondman *Strobilus*, a Worm, becauſe not being eſpyed of his Maſter before, he ſuddenly came ſneaking out from behinde an Altar where he was hid, much like a Worm, that in moiſt weather iſſueth out of the ground. Thoſe little heaps which are caſt up and lie ſhining and wrinckled before the mouth or edges of their holes, I take them to be their miery excrements: for I cold never as yet finde other excrementitious ſubſtance, droſſy matter, or other feculency, but only bare earth in them, whoſe alimentary juyce and moiſture being clean exhauſted, they caſt out the remainder, as an unprofitable burthen, nothing fit for nouriſhment. At the entrance of their doors, which yet ſteadeth them to ſome commodious uſe, for ſtopping and damming up their holes that the rain cannot ſo eaſily ſoke in, they are by theſe means ſafely defended from many anoyances and dangers, that otherwiſe might light upon them.

Their delight is to couple together, eſpecially in a rainy night, cleaving together untill the morning: and in the ſame they are not folded round about one another like unto Serpents, but are ſtraightly cloſed together ſide-wiſe, and thus do they remain ſticking cloſe the one to the other. They ſend forth a certain froathy ſlime or jelly when that they joyn together. They do ever keep the middle part of their body within the earth, I mean their hinder-parts; yea even in their mutual joyning together; neither are they at any time ſo faſt glewed and cloſed, but with the leaſt ſtirring and motion of the ground that can be imagined, they are ſtraight-ways ſevered, withdrawing themſelves ſpeedily into their lurking holes. In rainy weather they are whiter a great deal then at other times, unleſſe it be when they couple together, for then they appear very red. I my ſelf about the midſt of *April*, did once open a thick femaſe Worm, and within the fleſh I found a certain receptacle ringed round about, and filling up the whole cavity of the body, having a thin membrane or ſeat encloſing it, and in this aforeſaid ſtore-houſe the earth which ſhe had fed on, and wherewith ſhe was ſuſtained, was held and contained. Her egges were found to be in a ſafe place above the receptacle, next to the mouth, there were many of them on a heap together, being all of a whitiſh colour.

The leſſer Earth-worms for perſpicuities ſake, we with *Georgius Agricola* will name *Aſcarides*: and theſe are often found in great numbers in Dung-hills, Mixens, and under heaps of ſtones. Of this ſort ſome are red, (which we Engliſhmen call Dugs) and theſe be they that Anglers and Fiſhers do ſo much deſire, for Fiſhes will greedily devour them, and for that end they with them do bait their hooks.

There be ſome others of theſe leſſer Earth-worms that are ſomewhat of a blew colour, other-ſome again are yellow only about the tail: whereupon they have purchaſed the name of Yellow-tails. Some again are ringed about the necks, withall very fat. Some others there be that have neither chains nor rings, and theſe commonly be more lank and ſlender of body then the former, and theſe I judge to be the males. Theſe Worms do ſpecially breed in Autumn, or at the fall of the leaf, by reaſon then there is but little moiſture in the earth, and this is *Ariſtotles* opinion. Both kindes do live long in the water, but yet at length for want of ſuſtenance there they die. They move from place to place with a kinde of reaching and thruſting forwards, for we cannot properly ſay that they do either rowl or tumble. *Olympio* in *Plautus* would go about to make a ſimple plain fellow believe that Worms did eat nothing but very earth, becauſe he uſed theſe words to *Chalinus*;

Poſt autem niſi niſi ruri tu ervum comederis:
(for thus *Lambine* readeth)
Aut quaſi Lumbricus terram.
In Engliſh thus;
And afterward thou nought but Tares ſhalt eat,
Or elſe like Worms, the earth ſhall be thy meat.

But by earth here in this place, he underſtandeth not pure earth, and ſuch as is without any other mixture, but rather the fat, juyce, and moiſture of the ſame. And this is the reaſon, that Earth-worms are not to be found in all ſoils alike, as in barren, ſandy, ſtony, hard, and bare grounds, but only in fat, gravelly, moiſt, clammy and fertile. And for this reſpect *England* hath many Worms, becauſe both Countrey and ſoil are very moiſt: and this moiſture whereon they feed muſt not be ſalt, ſowre, tart, or bitter, but ſweet and toothſome: and therefore it is, that *Lucretius* in his ſecond Book writeth, that Worms are bred moſt when it ſhowreth, as in rainy ſeaſons and moiſt weather.

Quatenus in pullos animaleis vertier ova
Cerminus alituum, vermeſq; effervere terram
Intempeſtivos cùm putror cœpit ob imbres.
In Engliſh thus;
Even as in time of rain, we ſee
Birds Egges their young forth hatch,
And Worms in heat of gendering be
When they clouds rot do catch.

In Theriaca. And to this opinion of *Lucretius*, *Nicander* ſeemeth to lean, when he affirmeth, that theſe Worms are nouriſhed altogether of the earth that is moiſtned with long rain, or with ſome ſmoaking ſhower: for making a difference between the Serpent *Scytale*, and the *Amphisbæna*, he thus writeth;

Steileies pachetos, tes elminthos pelei ogros
He cai entera ges oia trephei ombrimos aia. Id eſt.
Manubrii ligonis latitudo, longitudo verò ei quæ Lumbrico,
Aut terræ inteſtinis, quæ imbribus irrigata terra alit.
That is to ſay;
As broad as haft of Spade, his length like little Worm,
And fed with dreary earth, moiſt by clouds and rainy form.

The greater ſort of Earth-worms live in the bowels of the earth, and moſt of all in an open free air, and where there is ſome repair and confluence of people. Every morning they withdraw themſelves into their ſecret holes and corners within the ground, fencing the entrance of them with their excrements they have voided forth, in a fair and Sunſhine weather: but in rainy weather they uſe to ſtop the mouths of their holes with ſome ſtalk or leaves of herbs or trees, being drawn a little inwardly into the earth. They feed upon the roots of thoſe Plants which have any ſweet juyce or moiſture in them; and therefore one may many times finde them amongſt the roots of common Meddow-graſſe: and they do live for the moſt part by the fat moiſture of the earth, yet will they alſo greedily devour crums of white Bread unleavened, as I have often ſeen. In the Spring time, they firſt appear to come forth from the bowels of the earth, and all the Winter they lie hid in the ground, but yet if it be a very ſharp and pinching cold Winter, and a dry Summer follow, for lack of moiſture they do almoſt all die.

Beſides, if you dig into the earth, or make a great motion, trampling, or hard treading upon the ſame pouring in any ſtrange liquor or moiſture into the ſame, wherewithall they are unaquainted; as for example, the juyce of Wall-nut-trees, the water wherein Hemp either ſeeds or leaves are ſoaked, or been laid to rot in common lye, and the like, they will iſſue out of the earth ſpeedily, and by this means Fiſher-men and Anglers do take them.

In like manner, they cannot endure Salt, or aromatical things, nor by their good will come neer them, for but touching any of theſe they will draw themſelves on a heap, and ſo die. Worms are found to be very venomous in the Kingdom of *Mogor*, and the Inhabitants there do ſtand in ſo great fear of them, that they be deſtroyed and ſlain by them when they travel any journey; and therefore there they uſe ordinarily to carry Beeſoms with them to ſweep the plain ways for fear of further hurt. *Georgius Agricola* ſaith, that the little Worms called *Aſcarides*, are not all of one colour: for ſome are white, ſome yellow (as I remembred a little before) and others again are very black: and many of theſe in tilling the earth are caſt up by the plough, and many found in divers places all on a heap together. Theſe be they that deſtroy corn-fields, for by ſharing or biting the roots the fruit dyeth.

Some ſay, that thoſe Worms do moſt miſchief to corn-grounds, which in ſome places of *Italy* the people term *Zaccarole*, and theſe are thick, almoſt a finger long, being naturally of a very cold conſtitution of body; and therefore they never uſe to come forth of the earth, but when the weather is paſſing hot, for then will they come forth, even to the ſurface of the ground, as it is notably ſet down, by the famous Poet *Homer*:

Ovi. amo. l. 3.

——— *à quo ceu fonte perenni,*
Vatum Pieriis labra rigantur aquis.

In Engliſh thus;

By whom, as by an everlaſting filling Spring,
With Muſes liquor, Poets lips are bath'd to ſing.

Homer very fitly compareth *Harpalion* when he fell down dead amongſt his companions, to a ſilly Worm, when as ſeeking to eſcape by flight out of the battel, he was wounded to death by *Meriones*, ſhooting an arrow or ſteel dart into his hanch or hip, his verſes be theſe;

Meriones d' apiontos iei chalkere oiſton,
Kai r'ebale gloucon kata dexion autar oiſtos,
Antikron kata kuſtin up' oſteon exeperesen:
Ezomenos de cat' authi philon en cherſin etairon,
Thumon apopneion, oſte ſcolex epi gaia
Keito tacheis ecd' aima melan ree, deue de gaian. *Id eſt.*
Meriones autem in abeuntem miſit æream ſagittam,
Et vulneravit coxam ad dextram, ac ſagitta
E regione per veſicam ſub os penetravit:
Reſidens autem illic charorum inter manus ſociorum
Animam efflans, tanquam vermis ſuper terram
Jacebat extenſus: ſanguiſq; effluebat, tingebat autem terram.

That is to ſay;

But as he went away, behold Meriones
With brazen dart, did his right hip-bone wound,
Which neer the bladder did the bone through pierce:
In friends deer hands, he dyed upon the ground.
So ſtretcht upon the earth as Worm he lyed,
Black bloud out flowing, the ſame bedyed.

Mark well the ſlenderneſſe of this compariſon, whereby he would give us to underſtand the baſe eſtate, and faint heart of *Harpalion*. For in other places having to write of noble, valiant, and magnanimous perſons, when they were ready to give up the ghoſt, he uſeth the words *Sphadazein*, *Bruchein*, and the like to theſe, ſecretly inſinuating to us, that they fell not down dead like impotent Cowards, or timorous abjects, but that they raged like Lions, with grinding and gnaſhing their teeth together, that they were blaſted, benummed, or ſuddenly deprived of all their lives and ſenſes, &c. But here this puſillanimous and ſordidous minded man *Harpalion*, ſeemed to be diſgraced by his reſembling to a poor Worm, being peradventure a man of ſo ſmall eſtimation, and vile condition, as that no greater compariſon ſeemed to fit him. It ſeemeth he was a man but of a faint courage, and very weak withall, becauſe ſtriking and thruſting with his Spear or Javellin at the Shield or Target of *Atrides*, he was not able to ſtrike it through. But although this famous Poet doth ſo much ſeem to extenuate and debaſe a weak Worm: yet others have left us in their writings ſuch commendations of their ſingular uſe and neceſſity, for the recovery of mans health (then which no earthly thing is more pretious) and have ſo nobilitated the worth of theſe poor contemptible Creatures, as I think, nature as yet hath ſcarſe given any other ſimple Medicine, or experience found out by tract of time, nor knowledge of plants by long ſtudy hath revealed; nor *Paracelſus* by the Diſtillations of his Limbeck hath made known to the world, any ſecret endued with ſo many vertues and excellent properties againſt ſo many diſeaſes: and for proof hereof, it ſhall not be beſide the purpoſe to examine and deſcribe the rareſt and moſt probable that are recorded amongſt the learned.

Earth-worms do mollifie, conglutinate, appeaſe pain, and by their terreſtrial, and withall wateriſh humidity they do contemper any affected part, orderly and meaſurably moderating any exceſſe whatſoever. The powder of Worms is thus prepared: They uſe to take the greateſt Earth-worm that can be found, and to wrap them in Moſſe, ſuffering them there to remain for a certain time, thereby the better to purge and clenſe them from that clammy and filthy ſlimyneſſe, which outwardly cleaveth to their bodies. When all this is done, they preſſe hard the hinder-part of their bodies neer to the tail, ſqueeſing out thereby their excrements, that no impurity ſo neer as is poſſible may be retained in them.

Thirdly, they uſe to put them into a pot, or ſome fit veſſel with ſome white Wine, and a little ſalt, and ſtraining them gently between the fingers, they firſt of all caſt away that Wine, and then do they pour more Wine to them, and after the waſhing of the Worms, they muſt alſo take away ſome of the Wine, for it muſt not all be poured away (as ſome would have it) and this muſt ſo often be done and renewed until the Wine be paſſing clear without any filth or droſſineſſe, for by this way their ſlimy jelly, and glutinous evil quality is clear loſt and ſpent. Being thus prepared, they are to be dryed by little and little in an Oven, ſo long till they may be brought to powder, which being beaten and ſearſed, it is to be kept in a Glaſſe veſſel far from the fire by it ſelf. A dram of this powder being commixed with the juyce of Marigolds, cureth the Epilepſie, with ſome ſweet Wine, as *Muſcadel*, Baſtard, or the Metheglin of the Welchmen. It helpeth the Dropſie. With white Wine and Myrrhe, the Jaundiſe, with new Wine, or Hydromel the Stone; Ulcers of the Reins and Bladder: It ſtayeth alſo the looſneſſe of the belly, helpeth barrenneſſe, and expelleth the Secondine, it aſſwageth the pain of the hanch or hip; by ſome the *Sciatica*; it openeth obſtructions of the Liver, driveth away Tertian Agues, and expelleth all Worms that are bred in the Guts, being given and taken with the decoction or diſtilled Water of Germander, Worm-wood, Southern-wood, Garlick, *Scordum*, Centory, and ſuch like.

The decoction of Worms made with the juyce of Knot-graſſe, or Comfery, Salomons Seal, or *Saraſius* compound, cureth the diſeaſe tearmed by Phyſitians *Diabetes*, when one cannot hold his water, but that it runneth from him without ſtay, or as faſt as he drinketh. A Glyſter likewiſe made of the decoction of Earth-worms, and alſo taken accordingly, doth marvellouſly aſſwage and appeaſe the pain of the Hemorrhoids. There be ſome that give the decoction of Earth-worms to thoſe perſons that have any congealed or clotted bloud in their bodies, and that with happy ſucceſſe. The vertue of Earth-worms is exceedingly ſet forth, both by the *Grecians* and *Arabians*, to encreaſe Milk in womens breaſts.

Hieronymus Mercurialis a learned Phyſitian of *Italy*, adviſeth Nurſes to uſe this confection following in caſe they want milk, always provided that there be not a Fever joyned withall. Take of the Kernels of the fruit of the Pine-tree, ſweet Almonds, of each alike, one ounce, ſeeds of Fennel, Parſley, and Rapes, of either alike one dram, of the powder of Earth-worms waſhed in Wine, two drams; with Sugar ſo much as is ſufficient, to be given the quantity of a dram or two in the morning, and after it drink ſome ſmall Wine, or Capon-broth boyled with Rape-ſeeds and Leeks. Againſt the Tooth-ach the ſame powder of Earth-worms is proved ſingular, being decocted in Oyl, and dropped a little at once into the ear, on the ſame ſide the pain is, as *Pliny* witneſſeth, or a little of it put into the contrary ear, will perform the ſame effect, as *Dioſcorides* teſtifieth. And thus far of Earth-worms taken into the body, and of their manifold vertues, according to the evidence and teſtimony of *Dioſcorides*, *Galen*, *Aetius*, *Paulus*, *Ægineta*, *Myrepſus*, *Pliny*, and daily experience which goeth beyond the precepts of all skilful Maſters: for this is the Schoolmiſtris of all Arts, as *Manilius* in his ſecond Book hath written;

Per varios uſus artem experientia fecit,
Exemplo monſtrante viam.

In Engliſh thus;

Experience teacheth art by uſe of things,
When as example plaineſt way forth brings.

Being alſo beaten to powder, and outwardly applyed, they do cloſe and ſolder up wounds, and conglutinate ſinews that are cut, and conſolidating them again in the ſpace of ſeven days, and to perform this cure the better, *Democritius* adviſeth to keep them in Honey. The aſhes of Earth-worms duly prepared, cleanſeth Sordious, ſtinking and rotten Ulcers, conſuming and waſting away their hard lips, or callous edges, if it be tempered with Tar and *Simblian* Honey, as *Pliny* affirmeth. *Dioſcorides* ſaith, that the Honey of *Sicilia* was taken for that nf *Simblia* in his time. Their aſhes likewiſe draweth our Darts or Arrows ſhot into the body, or any other matter that ſticketh in the fleſh, if they be tempered with Oil of Roſes, and ſo applyed to the place affected. The powder alſo cureth Kibes in the heels, and Chilblanes on the hands, as *Marcellus* teſtifieth, for hurts that happen to the ſinews when they are cut in pieces, *Quintus Serenus* hath theſe verſes;

Profuerit terræ Lumbricos indere tritos,
Queis vetus & rancens ſociari axungia debet.

It is good (ſaith he) to apply to ſinews that are diſſected. The powder of Earth-worms mixed and wrought up with old, rammiſh, and unſavory Barrows greaſe, to be put into the grief. *Marcellus Empiricus*, Beſides the powder of Earth-worms and Axunger, addeth further, Grounſwell, and the tender tops of the Box-tree with *Olibanum*: all theſe being made up and tempered together to make an Emplaſter, he counſelleth to be applyed to ſinews that are laid open, cut aſunder, or that have received any puncture, or ſuffer any pain or aking whatſoever. *Pliny* ſaith, that there cannot be a better medicine found out for broken bones, then Earth-worms and field Mice dryed and pulveriſed, and ſo mixed together with Oyl of Roſes, to be laid in the form of an emplaſter upon the part fractured. Yea, to aſſwage and appeaſe pain, both in the joynts and in the ſinews of Horſes, there hath not been found out a more notable Medicine, as we may well perceive by the writings both of *Ruſſius*, *Abſyrtus*, and *Didymus*: whereupon *Cardan* hath obſerved, that all pains whatſoever may be mitigated by their apt uſing. *Carolus Cluſius* ſaith, that the *Indians* do make an excellent unguent of Earth-worms againſt the diſeaſe called *Eryſipelas*, being a ſwelling full of heat and redneſſe with pain round about, commonly called S. *Anthonies* fire: And thus it is prepared:

They firſt take Earth-worms alive, feeding them either with the leaves of *Mæza*, or elſe with fine Meal, until by this means they grow fat; afterwards boiling them in an earthen veſſel, (remembring ever to ſcum the ſame) they do ſtrain them, boyling them yet again, to the conſiſtence almoſt of an emplaiſter, which if it be rightly prepared is of a yellow colour. And this Medicine may well be uſed for any burning or ſcalding. My purpoſe is not to vouch all thoſe authorities I might, concerning the admirable Nature and vertue of Earth-worms: for ſo I think I might alledge ſix hundred more, which is not meet to be inſerted in this place. I will therefore now paſſe to their qualities and medicinal uſes for irrational creatures.

Pelagonius much commendeth Earth-worms as an excellent medicine for the Bots or Worms that are in Horſes, and in the bodies of Oxen and Kine, affirming that the beſt way is to put them alive into their Noſthrils, although without queſtion it were far better to conveigh them into their maws by the means of ſome horn. *Tardinus* adviſeth to give the powder of Earth-worms with ſome hot fleſh, to Hawks when they cannot exonerate nature (or how Faulkeners tearm it, I know not) For that (ſaith he) will looſen their bellies. Moles do alſo feed full ſavorly upon them, and if they fall a digging, it is ſtrange to ſee with what ſudden haſt and ſpeed then poor Worms will iſſue out of the ground. In like ſort Hogs and Swine (as *Varro* writeth) by their turning up the mud, and rooting in the earth with their ſnowts, do by this means dig up the Worms, that they may eat them.

Albertus Magnus ſaith, that Toads do feed upon Worms. *Bellonius* ſaith, that Lizards and *Tarentinus*, that the Sea-fiſh called *Gryff*, or *Grample*, doth greedily devour them, and finally experience it ſelf witneſſeth, that Frogs, Eels, Gudgeons, Carps, Breams, Roches, and Trowts, do ſatisfie their hungry guts by feeding upon them. *Ariſtotle* in his eight Book *De Nat. Animal. Cap.* 3. deſcribeth a certain Bird that liveth in the waters, which *Gaza* interpreteth *Capella*, though the Philoſopher calleth it *Aix*, and ſome have called it *Udbellus*, that liveth for the moſt part upon Worms: yea, Thruſhes, Robin-red-breaſts, Mun-murderers, and Bramblings, Hens, Chaffinches, Gnat-ſnappers, Bull-finches, and all ſorts of Crows will feed upon them; and therefore it is that there be more Crows in *England*, then in any other Countrey in the world, reſpecting the greatneſſe, becauſe here the ſoil being moiſt and fat, there is abundance of Earth-worms ſerving for their food, as *Polydorus Virgilius* in his firſt Book of the Hiſtory of *England*, (which he dedicated to King *Henry* the eight) hath excellently delivered.

The people of *India*, if we will credit *Minardus*, do make of theſe Worms divers juncats, as we do Tarts, Marchpanes, Wafers, and Cheeſe-cakes, to eat inſtead of other dainties. And the Inhabitants of *Weſt-India* do devour them raw, as *Francis Lopez* teſtifieth. The people of *Europe* in no place that ever I heard or read of, can endure them to be ſet on their Tables, but for medicinal uſes only they deſire them. *Plautus* uſeth in ſtead of a proverb this that followeth;

In Bacchide.

Nunc ab tranſenna hic turdus Lumbricum petit.

It is an allegory taken and borrowed from a gin or ſnare wherewith Birds are taken: by which *Chryſalus* the bond-man bringing certain Letters to *Nicobolus* an old man, ſignifieth and giveth warning, that the weak old man was by the reading of the letter no otherwiſe enſnared, intangled, and deceived, then ſome Birds are taken by ſubtile and crafty ſleights. For *Tranſenna* is nothing but a deceitful cord ſtretched out to take Birds, eſpecially Thruſhes or Maviſſes withall, and Worms is their proper food, which while they endevour to entrap, they themſelves are deceived and taken. Surely I ſhould not think that thoſe Fiſhers and Anglers be very wiſe, who to take Worms, uſe to pour lye or water into the earth wherein Hemp, Southern-wood, Centory, Wormwood, or Vervin have been long ſoaked, or any other ſtrange moiſture, cauſing them by this mean to iſſue forth out of the earth, for the Earth-worms by this kinde of dealing being made more bitter, unſavoury, and unpleaſant, no fiſhes will once touch or taſt them, but rather ſeek to avoid them. But contrarywiſe, if they will let them lie a whole day in Wheat-meal, putting a little Honey to it, and then bait their hooks with them, they will be ſo ſweet, pleaſant, and delectable, as that the unwary Fiſh will ſooner bite at it, then at *Ambroſia*, the very meat of the Gods.

Earth-worms do alſo much good to men, ſerving them to great uſe in that they do prognoſticate and foretell rainy weather by their ſodain breaking or iſſuing forth of the ground: and if none appear above ground over-night, it is a great ſign it will be calm and fair weather the next day. The ancient people of the world have ever obſerved this as a general rule, that if Worms pierce through the earth violently, and in haſte by heaps, as if they had bored it through with ſome little Auger or Piercer, they took it for an infallible token of Rain ſhortly after to fall. For the Earth being as it were imbrued, diſtained, made moiſt, and moved with an imperceptible motion, partly the South winde, and partly alſo a vaporous air, it yeeldeth an eaſie paſſage for round Worms to winde out of the inward places of the Earth, to give unto them moiſt food, and to miniſter ſtore of fat juyces, or fattiſh jelly, wherewith they are altogether delighted.

Some there be found, that will faſhion and frame Iron after ſuch a manner, as that they will bring it to the hardneſſe of any ſteel, after this order following. They take of Earth-worms two parts, of Raddiſh roots one part, after they are bruiſed together, the water is put into a Limbeck to be diſtilled, or elſe take of the diſtilled water of Worms *l.* iij. of the juyce of Raddiſh *l.* i. mix them together, for Iron being often quenched in this water, will grow exceeding hard.

Another. Take of Earth-worms *l.* ij. diſtil them in a Limbeck with an eaſie and gentle fire, and temper your Iron in this diſtilled water. Another. Take of Goats bloud ſo much as you pleaſe, adding to it a little common ſalt, then bury them in the earth in a pot well glaſed and luted for thirty days together. Then diſtil after this the ſame bloud in *Balneo*; and to this diſtilled liquor, add ſo much of the diſtilled water of Earth-worms. Another. Take of Earth-worms, of the roots of Apple-trees, of Rapes, of each a like-much, diſtil them apart by by themſelves, and in equal portions of this water ſo diſtilled, and afterwards equally mixed, quench your Iron in it, as is ſaid before. *Antonynus Gallus.*

It ſhall not be impertinent to our matter we handle, to add a word or two concerning thoſe worms that are found and do breed in the ſnow, which *Theophanes* in *Strabo* calleth *Oripas*: but becauſe it may ſeem very ſtrange and incredible, to think that any worms breed and live only in the Snow, you ſhall hear what the Ancients have committed to writing, and eſpecially *Strabo* his opinion concerning this point. It is (ſaith he) received amongſt the greater number of men, that in the ſnow there are certain clots or hard lumps that are very hollow, which waxing hard and thick, do contain the beſt water as it were in a certain coat; and that in this caſe or purſe there do breed worms. *Theophanes* calleth them *Oripas*, and *Apollonides*, *Vermes*.

Ariſtotle ſaith, that living creatures will breed alſo even in thoſe things that are not ſubject to putrefaction; as for example, in the fire and ſnow, which of all things in the world, one would take never to be apt to putrefie, and yet in old Snow Worms will be bred. Old Snow that hath lyen long, will look ſomewhat dun, or of a dulliſh white colour, and therefore the Snow-worms are of the ſame hiew, and likewiſe rough and hairy. But thoſe Snow-worms which are found to breed when the air is ſomewhat warm, are great, and white in colour, and all theſe Snow-worms will hardly ſtir, or move from place to place. And *Pliny* is of the ſame judgement, and the Author of that Book which
Lib 11. c.35. is intituled *De Plantis*, falſely fathered upon *Ariſtotle*.

Yet ſome there be that denying all theſe authorities, and rejecting whatſoever can be objected for confirmation thereof to the contrary, do ſtoutly maintain by divers reaſons, that creatures cannot breed in the Snow: becauſe that in Snow there is no heat, and where no quickning heat is, there can be no production of any living thing. Again, *Ariſtotle* writeth that nothing will come of Ice, becauſe it is (as he ſaith) moſt cold: and hereupon they infer that in all reaſon, nothing likewiſe can take his beginning from Snow; neither is it credible, that husbandmen would ſo often wiſh for Snow in Winter to deſtroy and conſume Worms, and other little Vermine, that elſe would prove ſo hurtful to their corn and other fruits of the earth. And if any Worms be found in the Snow, it followeth not ſtraightways that therein they firſt receive their beginning, but rather that they firſt come out of the earth, and are afterwards ſeen to be wrapped up, and lie on heaps in the Snow.

But by their leaves theſe reaſons are very weak, and may readily be anſwered thus; that whereas they maintain that nothing can breed in the Snow, becauſe it is void of any heat at all, herein they build upon a falſe ground. For if we will adhibit credit to *Averrhoes*, there is nothing compounded and made of the three Elements, that is abſolutely without heat. And *Ariſtotle* in his fift Book *De Generatione Animalium*, telleth us preciſely, that there is no moiſture without heat. His words are *Ouden hugron aneu thermou*. Now Snow is a compact, and faſt congealed ſubſtance, and ſomewhat moiſt, for although it proceedeth by congelation, which is nothing elſe but a kinde of exſiccation, yet notwithſtanding, the matter whereof it firſt cometh is a vapour, whoſe nature is moiſt, and with little ado may be turned into water.

I muſt needs ſay that congelation is a kinde of exſiccation, but yet not ſimply: for exſiccation is, when as humidity goeth away, it putteth forth any matter, but in Snow there is no humidity that is drawn out, but it is rather wrapped in and incloſed more ſtrongly, and as it were bounded round. Furthermore *Ariſtotle* in his firſt Book of his *Meteors* ſaith, that Snow is *Nubes congelata*, a clowd congelated or thicked together, and that in Snow there is much heat. And in his fift Book *De Generatione Animalium*, he further addeth, that the whiteneſſe of the Snow is cauſed by the air, that the air is hot and moiſt, and the Snow is white; whereupon we conclude, that

Snow is not ſo cold, as ſome would bear us in hand. I well hold that nothing will take his Original from Ice, in regard of his exceſſive coldneſſe, but yet ſnow is nothing nigh ſo cold as that. So then all the hinderance and let is found to exceed of cold, which is nothing ſo effectual or forcible as in Ice, and the cold being proved to be far leſſer, there can nothing be alleadged to the contrary, but that it may putrefie.

Now in that Snow is ſuch an enemy to Worms, and many other ſmall creatures, as that for the moſt part it deſtroyeth them, yet it followeth not, that the reaſon of *Ariſtotle* is quite overthrown: becauſe (as we daily ſee) that thoſe creatures which live in the air, will for the moſt part be ſuffocate and die in the water; and contrariwiſe, thoſe that live in the water, cannot endure the air. Yet hereupon it followeth not, that if they be choked in the water, that none at all will live in the water, and the ſame reaſon is to be alleadged concerning the air. Therefore it is no marvail if thoſe Worms that firſt breed in the earth, and live in the earth, be killed by the Snow; yet it neceſſarily followeth not, that no living creature can take his firſt being either from or in the ſnow. But if it can, as *Ariſtotle* witneſſeth, it is ſo far unlikely that the ſame Snow ſhould be the deſtroyer of that it firſt was bred of, as I think rather it cannot live ſeparately, but of neceſſity in the ſame Snow; no otherwiſe then fiſhes can live without water, from which they firſt ſprung and had their beginning.

And to this opinion leaneth *Theophraſtus*, in his firſt Book *De Cauſis Plantarum*, whoſe words be theſe, *Apanta gar phan tai ta zoa, kai ta phuta kai diamenonta, kai genomena, en tois oikeiois topois*: For all creatures (ſaith he) whatſoever ſeem, both plants to remain, and to be generated and bred, in their own due and proper places. And after this he addeth and urgeth a little further, *Aparthe men hupo touton*; from his own home and ſpecial particular place of abode, nothing can ſuffer, ſuſtain harm, or be corrupted. And in his fift Book *De cauſ. Plan.* he ſetteth it down more perſpicuouſly, how that Worms which are bred in ſome ſpecial trees, being afterward tranſlated and changed to other trees, where they never came before, cannot poſſibly live. Wherefore it is more conſonant to reaſon, and more agreeable to common ſenſe, to affirm that thoſe Worms which are found folded and rolled up in the Snow, to have been firſt bred in the ſame Snow, rather then to have iſſued out of the earth.

Neither are we to make any queſtion or ſcruple concerning their food; for there is no doubt, but the mother from whence they proceeded, will provide ſufficient nouriſhment for her own children. For as we ſaid a little before, the Snow is no ſimple thing, but compacted and concrete together of many, and of this nature ought every aliment to be. *Julius Cæſar Scaliger* is of this minde, that Worms are ingendered and brought forth in the very Snow, becauſe there is in it much air and ſpirit, which afterwards being heated and brought to ſome warmth together, may cauſe them to generate; for it is the nature and quality of Snow to make fat the earth, of which fattiſh moiſture or Jelly, there may (heat being joyned) be produced a living creature.

There be ſome that do conſtantly hold, that in the midſt of certain ſtones, of which they uſe to make Lime, there do breed divers creatures, of very different kindes, and ſundry proportions and ſhapes, and likewiſe Worms, with hairy backs, and many feet, which are wont to do much hurt to Furnaces and Limbeckils where they make Lyme. Yet *Caſalpinus* in his firſt Book *De Metal.* chap. 2. thinketh the contrary, aſſuring us that in Metal-mines, Quarries of Marble, and other ſtones, there can never any living body be found. And yet in Rocks of the Sea, within the hollow places and rifts of the ſtones, they do commonly finde certain ſmall living things called *Dactili*.

I do not doubt, whatſoever he ſaith to the contrary, but that many creeping, and other living creatures, may be found both in the ſecret Mines of ſtone, and ſometimes alſo amongſt Metals, although it be ſeldom ſeen. And for confirmation hereof, I will alleadge one example happening not many years ſince in our own Countrey. At *Harleſtone* a mile from *Holdenby* in *Northamptonſhire*, there was a Quarry of free ſtone found out, of which they digged for the building of Sir *Chriſtopher Hattons* houſe, where there was taken up one being a yard and a half ſquare every way at the leaſt, and being cloven aſunder, there was found in the very midſt of it a great Toad alive, but within a very ſhort ſpace after, comming to the open air, it dyed. This ſtone amongſt others, was taken very deep out of the earth, it was ſplit and cut aſunder by one whoſe name is *Lole*, an old man yet living at this day, it was ſeen of five hundred perſons, Gentlemen and others, of worthy repute and eſteem, the moſt part of them living at this hour, whoſe atteſtation may defend me in this report: and ſurely if Toads may live in the midſt of ſtones, I can ſee no reaſon but that Worms may there be found, but as yet I could never ſee it.

In the year of Grace 970. at what time *Romualdus* the ſon of *Sergius* a young Monk, was advanced by the Nobility of *Ravenna* to be their Archbiſhop, there followed a great death and murrein among Earth-worms: after that again enſued ſcarſity and death of all fruits of the earth, as *Carolus Sigonius* in his Chronicle of the Kingdom of *Italy* declareth. *Henry* Emperor of *Rome*, the ſon of the Emperour *Henry* the third, as *Crantzius* hath written, when he took his voyage into *Italy*, being ſuddenly ſtayed of his intended courſe, with an Army ſent againſt him by *Matild*, that he ſhould paſſe no further then *Lombardy*, yet having taken *Mutina*, there appeared a ſtrange and uncouth ſign in the air, for an innumerable company of Worms, ſmaller and thinner then any Flies, did flie about in the air, being ſo thick that they might be touched with any ſmall ſtick or wand, and ſometimes with the hand, ſo that they covered the face of the earth one mile in breadth, and darkned likewiſe the air two or three miles in length. Some did interpret it as a ſign or fore-telling, that ſome Chriſtian Prince ſhould go into the *Holy-land.*

In the year of our Lord God one thouſand one hundred and four, there were ſeen divers fiery and flying Worms in the air, in ſuch an infinite multitude, that they darkened the light of the Sun, ſeeming to deprive mens eye-ſight thereof; and ſhortly after this monſtrous and unnatural wonder, there followed other ſtrange and ſeldom-ſeen prodigious ſights on the earth: and what a boiſterous ſtorm of troubles, and raging whirl-winde of War and bloud-ſhed ſhortly after enſued, the event thereof did plainly manifeſt.

FINIS.

A Phyſical *Index*, containing plentiful Remedies for all Diſeaſes incident to the Body of Man, drawn from the ſeveral Creatures contained in this Firſt Volum.

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FINIS.

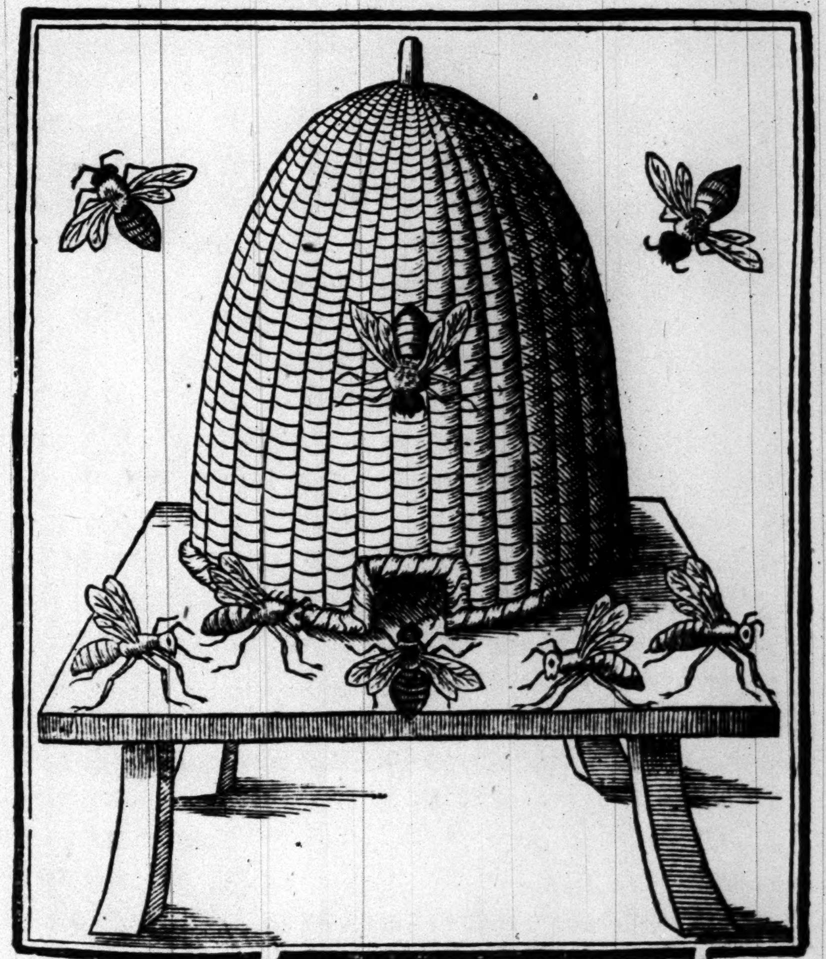
THE THEATER OF INSECTS:

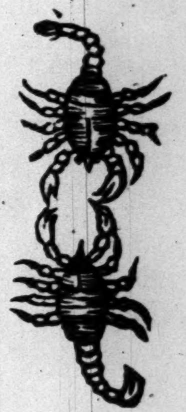
OR, Leſſer living Creatures.

AS,

BEES, FLIES, CATERPILLARS, SPIDRS, WORMS, &c. a moſt Elaborate Work.

By *THO. MOUFFET*, Doctor in Phyſick.





LONDON, Printed by *E. C.* 1658.

To the Noble Knight, and the Kings chief Phyſician, Dr. WILLIAM PADDY: Theodore Mayerne, *Knight, Baron of* St. Albons, *and Companion to the chief Phyſicians in the Court of* Britain, *wiſheth much health.*

YOur Countryman *Mouffet*, a notable ornament to the company of Phyſicians, a man of the more polite and ſolid learning, and well experienced in moſt Sciences, had formerly entituled this work of Inſects to the ever famous *Elizabeth*, (who was wiſe above her Sex, valiant, born to reign well, and ruled ſo many years by the Votes of her Subjects, and by her own undertakings and actions, that were ſo ſucceſſeful that they were envied at) it was begun by others, but augmented by him, poliſhed, and as it now comes forth exactly perfected, and he thought it no indignity to Dedicate to the greateſt Princeſs the miracles of Nature, which are moſt conſpicuous in the ſmalleſt things; which teſtifie the infinite power of the ſupreme Creator of all things, and raiſe the mindes of Princes who are the children of the moſt Higheſt, to the cauſe of all cauſes, that they may in all places acknowledge the preſence of the Deity, and his bountiful hand in his ſingular direction in reſpect of them, and his influence that acts by election, and may adore him with an humble, as with a grateful minde; ſo weighing by reaſon the degrees of proportion, that he is moſt obliged who hath received moſt. The Author before he could accompliſh this purpoſe, died; he was worthy to have lived longer for the advantage of Art and Learning. Thus the Book was left after his death to his Heir, who had a ſmaller eſtate than ſuited with the name of his Father, or his merit required, and his many watchings and labours ſuſtained for the publick good, in curing of the ſick, juſtly deſerved. Fortune is blinde and will hardly favour thoſe that are the beſt but againſt her will, as if it were diſagreeing and diſſonant that there ſhould be any commerce between *Pluto* with *Apollo*, *Minerva* and *Mercury*. *Elizabeth* being departed this life, and *James* then holding the reins of the *Britiſh* Empire piouſly and juſtly; and ruling peaceably amongſt the ſtorms that at that time ſhook all *Europe*, having weeded out by his Majeſtick Scepter, and by the providence of his ſoul which was prudent even to miracle, all Monſters, which endevoured to ſhake the foundations of the Kingdome by Treaſon, Deceit, Wickedneſs, Luſt, and Wrath. The Overſeers of this Orphan left in a very poor condition, were reſolved to Dedicate this learned Work to this Noble Heros, who was no leſs famous for his Learning than for a concourſe of all Virtues that met in him: but great poverty at home, delayed the buſineſs, and hindred this windy intention from taking effect, and the off-ſpring from coming to the light. So the Book lay for a long time in obſcurity under the cuſtody of the friends of the Author departed, until ſuch time as it was offered to me by *Darnellus*, who was formerly his Apothecary, and a very honeſt man, who wiſhed well to his Maſter being dead, and was very deſirous of his glory; ſo it lay for ſome years in my Study caſt aſide in the duſt among Worms and Moths; truly it was no fault of mine, but of the Printers who were ſo greedy of Money, that though in many Countreys I invited them by my Letters, and did ſolicit them to receive the Orphan, yet they refuſed (as they ſaid) to take upon them an unthankful buſineſs; they were not pleaſed with the benefit of a noble Art, unleſs it would pay more than the fraight. O the times wherein the pains of learned men are valued at the price the work will be ſold for, and the money that muſt be laid out for ink and paper, or by the depraved opinion of the vulgar (who commonly applaud what is worſt) and not by the eſſence of the thing it ſelf, or dignity of the ſubject, or the ſolid explanation of the ſame! Then there was an Epiſtle prefixed to the beginning which men call Dedicatory, which being it was to carry the name before it of one of the foreſaid Princes, the Edition ſeemed to come forth unſeaſonably after they were both dead. Perchance ſome other man would have caught at this occaſion, to have brought it to King *Charles*, the great Son of a great Father, under whoſe fortunate reign in his Kingly perſon, all Kingly virtues run together in troops, each ſtriving to have the upper hand) and kneeling down before his Majeſty, would have offered unto him, in hopes of a reward, another mans Works vail'd with a falſe cover of commendations, or obſcured with the great ſmoke of courtly eloquence. But I have no ſuch genius, for though I have not lived hitherto unwelcome to Princes, yet I have learned by long practiſe, that we muſt uſe their favour ſoberly, and never to abuſe their ears or eyes, and though you do know eaſie entrance and fit times to come into their preſence, yet importunity is alwaies unſeaſonable, and eſpecially that which hires mercenary Muſes for money to ſet them forth, which are branded with marks of infamy. Do not think that I detract ſo much from this Work that I think it not worthy to carry the name of a King in the Frontiſpice, and might live in publick under the protection of ſo ambitious an Inſcription; but I held it no leſs than ſacriledge to name the childe in ſtead of another of my own accord, or to bring a deaf perſon upon the ſtage, as to what concerns the expoſition of the Argument, and with other birds feathers in the very entrance of the work fooliſhly and vainly to pride my ſelf: yet that the Book might come forth every way compleat, and that the Reader who is a lover of the cuſtome may not deſire an Epiſtle, or complain that there is one wanting, according to my manner (wherewith I honour great men with the honour that belongs unto them, but my friend I reſpect above all, and that continually) I would prefix to this Natural and Phyſical Hiſtory the famous name of ſome man, who by the common conſent of the Learned, is well acquainted with both, and who is joyned unto me by no ordinary alliance, who is dear to all good men, and eminent for his own endowments; which office of Reverence and good will may teſtifie to poſterity, in what eſteem ſuch men are with me, who are intrinſecally furniſhed with the real tincture of manifold learning, but chiefly with that of the moſt noble Art of all, which I practiſe: ſo I have made choice of thee alone amongſt many, that thou mayſt be to me in ſtead of them all, Noble Man, my deareſt friend *Paddy*, who art Knighted by the wiſeſt Monarch *James*, who never did any thing vainly, who adorneſt thy Virtues by thy Titles, and thy Titles by thy Virtues, as our *Thorius* hath written of thee. Thou art he who after the wicked Parricide of Great *Henry*, formerly my moſt milde Maſter (which ſhall for ever convey the ſaid memory of his age to poſterity) when I was called by the moſt Serene *James* from the *French* Court by his own Letters, and by a guide appointed to conduct me into *Britain*, and was immediately honoured with the title of Companion of the chief Phyſicians, didſt not look upon me with bleer and ſwoln eyes, with the viperous venome of envy; but thou didſt entertain me, being a ſtranger, candidly, and with a cheerful countenance, (as it becomes one of noble Birth) contrary to that of *Horace*, who accuſeth the *Britains* divided almoſt from all the world, of fierceneſs toward ſtrangers. After that, in the many meetings we had amongſt ſick people, and in my practiſe in Phyſick, when I pleaſingly hearkned to the opinions of thoſe that conſulted, weighed them, and as it belonged to my place, concluded what was to be done, thou didſt hear me without brawling or contradiction, which is the imbred evil cuſtome of ſome unworthy Phyſicians; and thou didſt very often approve of my opinion, as conſonant to reaſon. In the famous Colledge of *London*, (where as thou wert alwaies moſt worthy, ſo thou wert often Preſident) when I was by the votes of the chiefeſt, and firſt of all by thy ſuffrage made a Colleague, according to the Kings Character for my place at Court, thou didſt willingly ſuffer me to have the next place to our Preſident: I farther add, that thou didſt never oppoſe thy ſelf to the many petitions or commendations that were offered by me to our moſt excellent Colleagues; but thou didſt alwaies afford me thy ear to hear me, and thy hands to help me. Laſtly thou didſt alwaies praiſe me being abſent, and as far as it was in thy power, of thy own accord, from the imbred motion of thy noble minde, thou didſt defend my good name privately wounded by the calumnies of envious men, and torn by malice, (which is the condition of good, and of the greateſt Princes) by that authority which thou haſt amongſt thy own Countreymen of what condition ſoever, and thou wouldſt not ſuffer this ſcab of backbiting to proceed any farther. O moſt excellent Man! what ſhall I repay unto thee, who as a true Philoſopher, haſt no deſire of vain glory, and ſuch things as make a great ſhew and are vulgarly praiſed, ſought for, and deſired by other men, are now eſteemed baſe with thee? My grateful minde, and moſt full of love towards thee, commands me to offer this ſmall token to thee in teſtimony thereof, which accept freely and willingly, and ſuffer that by this ſincere gift, that wicked ſaying may be diſanulled, that men of one profeſſion cannot endure one the other. God the beſt and the greateſt hath granted unto thee long life, by a proſperous aſpect of the Stars, for the good of thy Citizens, whoſe health thou haſt preſerved and reſtored by thy care for very many years effectually hitherto, that poſterity muſt juſtly acknowledge that thou haſt lived long, worthy not only of a Garland of oak, but a Statue of gold alſo, (if our times would afford ſuch honour). Now thou well deſerving Captain, diſcharged by age, thou Champion freed by reaſon of years with a token of honour, thou conqueror of monſters, that daily ſpring up with too fruitful an increaſe for the deſtruction of mankinde, dwelleſt with thy ſelf, thy ſoul yet ſuſtaining thy dry body yeelding to waſting time by degrees very eaſily, which being defiled with no conditions of her priſon, ſees the Haven, and is almoſt come into it; thy minde being abſtracted from the ſad vexations of humane life: and what time thou haſt to ſpare from divine Meditations, penetrating into all Nature, and the ſecrets of things, thou doſt expatiate into the pleaſant green Gardens of various natural Philoſophy. Behold here is a moſt exquiſite Garland for thee gathered out of the moſt ſecret Orchard of our great Parent, which will not only feed the eyes, but will lead the ſingular acuteneſs of thy wit, which thou aboundeſt with, into her moſt hidden places. Thou being an excellent Anatomiſt, I beſeech thee try if thou canſt diſſect Inſects; the great *Stagyrite* being thy guide, who did not diſdain to ſearch into the parts of Animals. Thou ſhalt finde in the little body of Bees a bottle which is the receptacle of Honey ſucked from flowers, and their legs loaded with Bitumen which ſticks faſt to make wax. Alſo in the tail there is a horny ſting full of revenging poyſon, that is ready to draw forth as ſoon as the Bee pleaſe; but the King of the ſwarm is ſaid to want one, for there naturally belongs to the ſupreme power, who can overthrow all when he will at his pleaſure, and there ought to be an imbred gentleneſs, whence it is that Kings by their proper attribute are called Fathers and Paſtors of the people. In Gnats you ſhall obſerve their ſounding trumpet that will ſuck bloud out of Animals, and will draw out moiſture through the joynts of the moſt ſolid wood, and wine-veſſels. How wilt thou be pleaſed to ſee the ſmall proboſcis of Butterflies wreathed alwaies into a ſpiral line, after they have drawn forth nutriment from flowers, their extended large wings painted by natures artificial pencil, with paints cannot be imitated; to which the very Rain-bow is ſcarſe comparable;

Which right againſt the Sun a thouſand colours ſhewes.

What a pleaſant ſpectacle will this be when the artificial hands carefully and curiouſly guide the moſt ſharp pen-knife, and very fine inſtrument by direction of the ſight! To behold the pipe of the Graſhoppers that live upon dew, and the organs of the ſhril ſound they make, that in the heat of the Dog-daies importunately beats upon the ears of travellers, which are ſo framed, that their concave belly is made vaulted under the Diaphragm, over which is extended a cover of a thin and dry membrane, like to a Drum, which lets in the air by an oblique turning, which being beaten by the regular and ſucceſſive motion of their wings, and ſtomach, coming in at a ſtrait paſſage, and preſently dilated, beating againſt the rough-caſt wals of the hollow place, and refracted, makes a ſound. To ſee the horns of the great Beetles, that are like to Stags horns, and with ſharpeſt points are able to make wounds, and the muſcles that move them, and tye them on exceeding faſt. The Rhinoceros is of the kinde of great Beetles. The ſwelling purſe which is the matter of the ſilk, and is wound back again into many turnings, by Silk-worms which are chief of all Caterpillers, of divers forms and colours: in which after the time deſtinated for the concoction of their food, which is gathered chiefly from Mulberry-leaves, a tenacious glew or jelly is reſerved, untill ſuch time as their ventricle ſwelling, and nature affecting to attain her end, the Worm by degrees belcheth forth her ſpittle, the thred whereof growing firm by the air (which is provided to make garments for great men) this little creature diſpenſeth through her very narrow claws, and ſpinning with the motion of her head and of half her body, with the kembing of it by the help of her forefeet; ſhe firſt diſpoſeth it for the ſtrengthning of her clew of yarn, and after that upon her own ſepulchre where ſhe muſt receive her tranſmutation. How the Spider thruſts out her excrements by her lower parts of her body, which is drawn forth into a web, of which ſhe poor creature frames nets with great labour, which are neceſſary to ſuſtain her life; and with her long legs that end in ſharp clawes, ſhe knits them into knots, being continually obnoxious to repair her work. In the uppermoſt caſes of the green Locuſts which feed upon hedges, there are two ſcales that are hard as horn, the mutual rubbing together whereof by the miniſtration of the air beaten with their ſofter wings, make a very ſharp ſound. The head of all of this kinde is armed, their hinder legs are hard, dry, long, by the vehement thruſting whereof againſt ſome firm object, with the help of their moſt ſtrong tendons, they will caſt their body a great way, being equally ballanced, and is heavy enough for the proportion of it, like an arrow coming forth of a bow; as it happens to Fleas that leap with a huge force. But which is yet more, beſides their pincers which are as ſharp as keen raſors, where is a direct paſſage from their mouth to their tail; the pylorus is compaſſed about with toothed bars, that anſwer one the other with a thorny gomphoſis, wherewith they deſtroy whole fields with devouring fore-teeth, like chizels, and grinde them as it were in a mill, and very ſuddenly they void it forth again; their hunger never ceaſes until the vile creatures have conſumed whole Countreys which God is angry with, divine revenge commanding them; and brings to nought that people, who ridiculouſly threaten heaven with deſtruction. You ſhall ſee the ſharp ſpears that arm the mouth of the Spiders Phalangia, and by the ſmall wounds they make, a ſtrange venome enters, and penetrates into the center of the body, and ſticks faſt to the deepeſt marrow, laſting ſo long in the ſubject that receives it as the cruel beaſt lives; and is exaſperated periodically at certain hours, troubling the phantaſie of the perſons wounded, which is abated with colours objected like to this Spider; yet it ceaſeth not to rage, until muſick cauſeth them to dance, and provokes them to ſweat abundantly, whereby the paroxyſm is diſſolved, which the day following returns at the ſame hour. You ſhall behold the internal fire of Glow-worms faſtned to their tails, and the torches of the Indian Cocuia that ſhines in the night, and overcomes Cimmerian darkneſs. And moreover, if you take lenticular optick Glaſſes of cryſtal, (for though you have Lynx his eyes, theſe are neceſſary in ſearching after Atoms) you will admire to ſee the dark red colour of the Fleas that are curaſheers, and their back ſtiffe with briſtles, their legs rough with hair, and between two foreyards there ſtands a hollow trunk to torture men, which is a bitter plague to maids, and is the greateſt enemy to humane reſt, eſpecially when that men would ſleep. You ſhall ſee the eyes of the Lice ſticking forth, and their horns, their body crannied all over, their whole ſubſtance diaphanous, and through that, the motion of their heart and bloud, as if it floted in *Euripus*. There will appear to thee the flat bodies of the petulant Crab-lice, with their grapples, wherewith they perpetually lance mans skin between the hair with their mouth, and ſtick on faſter than Cockles do to the rocks. Alſo little Hand-worms which are indiviſible they are ſo ſmall, being with a needle pickt forth of their trenches neer the pools of water which they have made in the skin, and being laid upon ones nail, will diſcover by the Sun-light their red heads, and feet they creep withall. And if from the inſpection of parts you will recal your minde to conſider the generation and beginning of Inſects, and will weigh the various tranſmutations which they undergoe, as of Worms into Flies; of Catterpillers (the ſeveral ſpecies whereof have their original from the corruption of ſeveral vegetables) into Chryſallides, (that ſhine as if leaves of gold were laid upon them) and Butterflies, whoſe egges again produce an off-ſpring like Worms, Nature acting ſucceſſively in a circle, and conſtantly by a perpetual motion running back into her ſelf: you will doubtleſs enter upon a large field of Philoſophy concerning three Kingdoms of the univerſal ſpirit, (the Vegetable, Animal, and Mineral) equally penetrating, repleniſhing, and governing, and upon the power and activity of it, introducing divers forms into beings that pertain to each of them, according to the diſpoſition of the matter: alſo the commerce of all ſublunary bodies amongſt themſelves will exerciſe your contemplation, which though oft times they ſeem to fight one againſt the other face to face; yet they agree in one, and from one the other, all and each of them borrow ſomething. And if Animals and Plants be tranſmuted, why ſhould that be denied to Metals? which thing, many genuine Miniſters and legitimate helpers of Nature boaſt, and not without reaſon, that they can do it by Art: and that only by removing of impediments, and by a convenient application together of actives and paſſives; which being done, the Philoſopher leaves the whole work to Nature only, which by a gentle outward heat, being helped without too much haſte, doth raiſe up an internal fire; which is the Workmaſter of the Elixir that muſt procure health and riches: that I may hiſſe out Aſſes, who triumphing in the Lions skin, erect a tumultuous and confuſed furniture in their Laboratories, and dig forth all things under ground from the very bottoms of Mines, and melt them in the fire, being deſirous to make trial of their own dreams.

Their Patrimonies they together pack,
Plying their hidden work with Coles full black;
When they have ſpent, and labour'd all in vain,
Nothing they finde, nothing they ſeek again.

But paſſing over theſe blowers of the Aſhes, if you be pleaſed to reaſon deeper concerning Inſects; you ſhall finde what will exerciſe you in the Monarchical government of Bees, the Democratical of Ants, and the œconomical providence of them both: of that in gathering and laying up Wax and Hony: of this in repleniſhing her granaries, and biting aſunder the grains of corn at that end where they ſpring forth, leſt the proviſion which is gathered with hard labour, and laid up for winter, by the force of an imbred heat in their work-houſe under ground (which is hot whileſt the Winter laſts) ſhould corrupt, being ſpoyled by a ſudden production, and a plague ariſing, together with a famine overſpreading, ſhould deſtroy the whole neſt. Nor can you lightly paſs over the Architecture in framing the cells in the combs of wax, mathematically to an exact Hexagon; in the hollow places of a Waſps neſt; in the various chambers of the Ant-hill, and winding Meanders: in the joyning together whereof he ſaw granaries, chambers, hoſpitals, places of burial, beſides the innumerable endowments of theſe indefatigable creatures, their functions and labours, and he could not admire or praiſe them ſufficiently, who had ſpent a long time in the contemplation of them, thinking it a work worth his pains, his whole life paſt being employed in this negligent and very idle buſineſs. Silk-worms, all Caterpillars, and Spiders, ſhew their art in ſpinning, making ſnares for Flies, and pitching their nets to provide themſelves victuals. The Wood-worms practiſe graving, with the raſp of their mouthes piercing into the timber: Ants and Bees, amongſt other Inſects, will teach men piety toward old men, tired, ſick men, and their own children: Oyl Beetles ſacred to *Apollo*, will teach them to love their off-ſpring, who never ceaſe for 28 daies to rowl up and down a dung-pil, (which is the receptacle of their ſeed) from Eaſt to Weſt, following the Suns motion, until it be fit to hide in the ground for the production of their young, after the ſpace of a Lunar moneth, which nature hath aſſigned for the forming, and excluding of this Worm, which ſhall at length become a Fly. Here take notice that the male hath a prolifick ſeed without help of the female, and can generate by it ſelf putrefaction of fit matter interceding in a convenient matrix, though it be not animal. But (that which crowns all the meditations of a Chriſtian man, and carrieth him aloft) conſider how the Silk-worm makes her ſelf a tombe, that is unpaſſable, by reaſon of her woven work that is moſt compacted within, in which the Worm contracted into it ſelf ſeems to die, and by a prodigious metamorphoſis it is born anew a Butterfly, a more noble creature, which by the weaving of its wings flies up into the air toward heaven, whereas before its burial it lived a baſe creeping creature faſtned to the earth, and glued to the food of the ground. See whether a little beaſt that is obſcure, of the kinde of Locuſts, living amongſt the ſtubble of the fields, when ſhe is conſumed with extreme leanneſs (which from the poſture of one that is praying, the *French men* of *Narbon* call *Pregadion*) do not teach men to hold up their hands in prayer unto heaven, and admoniſh them to obſerve a convenient geſture in offering up their ſupplications unto God. What think you of the greater Beetle, the *Indian* Rhinoceros, which being bred without a female (as the reſt of the like kindes are) dies, and riſeth again out of her own corruption, like a Phœnix, after her change, when ſhe was ſuppoſed to be wholly dead. Laſtly, what think you of Flies, which when they are drown'd many hours in water, if you bury them in hot embers, you ſhall revive them again. Truly I doubt not but that amongſt thoſe ſerious cogitations, (the object whereof will ſeem not ſo ſerious in reſpect of other falſe appearances of men, that are illiterate and unreaſonable) thy minde may riſe to its original, and faſtning thy eyes on heaven inſpired by

God, wilt cry out, O the depth! and with the divine Pſalmiſt wilt return a Pſalm of thanks to the Maker of Nature: ***How wonderful are thy works O Lord! In wiſdom haſt thou made them all, the earth is full with thy poſſeſsion.*** So ſhall I have whereby I may rejoyce, that however the whole courſe of thy age hitherto hath been but one continual act of Philoſophy, yet that by the rare advantage of this Preſent which is curious with variety, I have given thee a new occaſion of no leſs ſolid and profitable, than of pleaſant and ingenious meditation. Suffer therefore that a friendly hand may convey into your Library the Off ſpring of the moſt learned ***Mouffet***, which is now at laſt publiſhed and brought to light, and amongſt ſo many volumes wherewith thy Study ſhelfs are moſt excellently furniſhed, aſſign a place for it, worthy of the Father and the Son. Beſides the good things mentioned that ſhall from thence accrew unto thee, and the very great increaſe thou ſhalt reap from the hours thou ſhalt ſpend in reading the Book, (if I may jeſt with thee) thy own profit ſhall not want its advantage, leſt thy proper benefit ſhould here ſeem to be neglected. In theſe leaves thou ſhalt finde what will drive away the plague of thy delights, thoſe beaſts that are the greateſt enemies to the Muſes & their darlings, I mean the Moths that devour Books, which with a greedy belly and iron teeth (though their bodies be very ſmal) prodigally waſte and rend the lucubrations of whole ages. Let thoſe evil beaſts that are the moſt deadly miſchiefs of angry nature be deſtroyed after an ill manner: to prevent the propagation whereof, and to kill their infamous progeny (whileſt in the mean time learned writers of Books endevour to aboliſh their kinde utterly, or their ſedulous Collectors do what they can) this Book (which I ſend to thee as a remembrance of my love, will teach thee in the Chapter that treats of it. But let it ſuffice, I began with a ſmall pitcher, why ſhould the wheel run till it fill an Amphora? The heat of good will and fruitfulneſs of the ſubject carry me away; I muſt now take off my hand, leſt my Epiſtle ſhould proceed abſurdly beyond the bounds, which already unawares hath increaſed into a volume. Believe that I am affectionated to thee, and how well I wiſh and deſire to thee, theſe lines I have written may ſpeak. What remains of thy daies which God hath appointed thee to run the race of thy life, before thou receive thy heavenly reward, I wiſh thou maiſt finiſh without any pain of minde or body; and that I may ſpeak with ***Ariſtotle*** writing his laſt Teſtament, I pray from my heart, that thou maiſt live longer here, ***for it is well, but if any thing happen***, that thou maiſt ſafely arrive and enter glorioſly into the harbour of the bleſſed at the moment decreed. ***Farewel.***

From my Study in the Ides of *May*, and the year
of Mans Redemption, 1634.

A *Preface* upon the undertaking of this *Argument*; and of the worth and uſe of it.

THat the Hiſtory of Inſects is worthy of the chiefeſt Philoſophers, the pains of great Ariſtotle, and Pliny, and of our Wotton in deſcribing them doth ſufficiently demonſtrate. After their time Conradus Geſner laboured not unfruitfully, to perfect that work which they began; but by reaſon of his ſhort life, he fainted in the beginning of the race, nor was he able to put an end to it. But when Pennius of bleſſed memory met with thoſe papers by a better fate, for fifteen years together by infinite reading of all Authors, he enriched the Hiſtory by the exceeding great help of Quickelbergius, Cluſius, Camerarius, Sir Thomas Knivet, and of his moſt learned brother Edmund, Jo. Jacob, Roger Broun, Brite, but chiefly of our Bruer; and ſome courteſie of Peter Turner. That is to be lamented, that he alſo was taken away by untimely death, before he had diſpoſed of the matter and framed it to the dignity of this work, which he had heaped up together on all ſides; Hence it was that his Letters were full of blots, and confuſed with doubtful Characters: and they had periſhed, had not I laid them apart, when they were ready to be caſt out of doors; and with a great ſum of money had redeemed all the torn pieces of it. For I had rather ſomething ſhould be taken off from my own eſtate, than from his glory, who had ſpent ſo much pains in the deſcription of Inſects, and ſo much money for the Plates engraving; wherefore this Mans and Geſners and Wottons fragments being diſpoſed in order, adding to them the light of oratory which Pennius wanted, I forged the Hiſtory, and according to my abilities, (which I knew how ſmall they are) I at laſt brought it to a period. At firſt I was deterred from it by the difficulty of the work; becauſe I ſaw that Inſects are hard to be explained, both in reſpect of the unuſualneſs of the ſubject, and alſo of the ſublime or rather ſupine negligence of our Anceſtors in this point: for they ſtood ſtill in the very entrance, and they ſaluted them only by the way, or as the proverb is, at the threſhold of the door. I alſo feared that (which fell out it may be) leſt there ſhould want dignity of oratory, for ſo exquiſite a Narration; chiefly when as I oft obſerved Pennius to be gravelled here, and I ſeldom went to thoſe that were Artiſts of words. Alſo for a time I was detained by examining the cauſes of Inſects; which being unknown, the Hiſtory can neither be well pen'd, nor rightly conceived. Moreover friends checkt me (and that ſharply) that I did but rough-caſt another mans building; as though I were one who ſought for the Garland in every buſineſs, and thirſted after glory more than it was fit for me. They ſaid moreover, that ſince ſome worthy honeſt and profitable end muſt be propounded to every buſineſs that is rightly undertaken, yet none of theſe was to be found in theſe imperfect creatures, but I ſhould loſe my time, charge and labour exceedingly. By theſe hinderances I was as it were made faſt to an anchor, and left off for a ſhort time to ſail any farther: and ſometimes taking up my pen, ſometimes caſting it away again, I was in divers mindes, until that certain reaſons allayed theſe flotings of my thoughts, and did again kindle, as it were, a deſire in me to hoiſe up ſail again. I oppoſed againſt the difficulty of the work, the deſire of attempting things that were very difficult; remembring that for nine years Troy ſeemed to be impregnable, but was taken in the tenth year it was beleaguered. As for the dignity of the ſtyle, I was perſwaded that men of a ſound judgement would not conſider how neatly, but how well I diſcovered the nature of Inſects; for however ſome mens vain wits, deſire much affected eloquence, yet thoſe that eſteem of things ſoberly, altogether reject it. I put off the ignorance of the cauſes, with the anſwer of Theophraſtus, who though he ſunk under his too earneſt enquiring after them in plants, yet he did not conceal ſo profitable a Hiſtory. It ſhall ſuffice us to have meaſured the cauſes by humane capacity and mete-yard; for as it is the part of an ambitious man to promiſe a certain knowledge of them which is only in God, ſo to have no knowledge of them at all, is the part of a beaſt. The example of Galen, took away from me the fourth ſcruple I had; who though he added to Hippocrates but a few things, except the grace of Oratory, and did only open that way of Phyſick which he had ſet down, yet is he ſo placed in the ſecond rank amongſt Phyſicians, that many think him worthy to have the firſt. Which thing I have not only done in this book, (I am willing to ſpeak the truth concerning my own work) but I have inſerted intire Hiſtories, and above a hundred and fifty pictures, which Geſner and Pennius knew not; I have mended the method and language, and I have put out above a thouſand tautologies, trivial matters, and things unſeaſonably ſpoken: for I have had regard to the ſquemiſh ſtomachs of men of this nauſeating age, that not only loathe Coleworts twice ſod, but even Ambroſia twice ſet upon the table. Notwithſtanding how ſmall ſoever this my pains may appear, (for it cannot be thought no pains) he that ſhall make trial in ſomething of this nature, he will rightly perceive my labour, and will of his own accord take heed how he go to repair old and decayed houſes, with new matter; it had been better to have written a new Hiſtory than to have mended this which was ſo tattered and confuſed. As for vain glory, I deſire it may be as far from me, as I wiſh the light of this Hiſtory may be near to you. I confeſs that not to love honour is contrary to mine, and all humane nature, yet ſo that I hold boaſting to be amongſt the greateſt vices, and I equally reject fooliſh oſtentation in ſmall matters. Socrates, Plato, Hippocrates, have taught us better, who in their times both writ many things, and were exceeding far from the ambition of glory. I know not whether they are to be numbred amongſt men moſt deſirous of honour, who publiſhing nothing of their own, make unlearned men to conceive of them, that they abound with hidden learning; as if they were like bottles forſooth, that were ſo full, that they drop very ſlowly or not at all. I ſhall add this concerning the dignity of this Hiſtory of Inſects, (leſt we ſhould think God made them in vain, or we deſcribe them) that in the univerſal world there is nothing more divine than theſe, except Man. For however in ſhew they are moſt abject and ſordid, yet if we look more nicely into them, they will appear far otherwiſe than they promiſe in the bare outſide. It oft times comes into my minde (ſaith Galliſardus) to think of our Italians, who commonly admire vehemently things notable for magnitude, or new and unuſual; but things obvious in all places, and that are very ſmall they deſpiſe; yet if they look exactly to the matter, it will be eaſie to obſerve, that the divine force and power ſhew themſelves more effectually in mean things, and they are far more miraculous, than thoſe things the world with open mouth reſpects ſo much and admires. If any man bring from far the wonderful Bittour, Elephant, Crocodile, there is no men but runs quickly to ſee that, becauſe it is a new thing and unuſual; and when they have leave to ſee them as much as they will, they only wonder at their greatneſs, colour, and ſuch things as fall under the apprehenſion of their ſenſes. But no man regards Hand-worms, Worms in Wine, Earwigs Fleas; becauſe they are obvious to all men, and very ſmall, as if they were but the paſtimes of laſcivious and drunken Nature, and that ſhe had been ſober only in making thoſe huge and terrible beaſts. Nor is this vice peculiar to the Italians only, but it is common to the Engliſh and to all mankinde; who that they may ſee thoſe large beaſts that carry towers, the African Lion, the huge Whale, the Rhinoceros, the Bear and Bull, take ſometimes a long journey to London, and pay money for their places on the ſcaffold, to behold them brought upon the ſtage: yet where is Nature more to be ſeen than in the ſmalleſt matters, where ſhe is entirely all? for in great bodies the workmanſhip is eaſie, the matter being ductile; but in theſe that are ſo ſmall and deſpicable, and almoſt nothing, what care? how great is the effect of it? how unſpeakable is the perfection? as Pliny ſaith. Do you require Prudence? regard the Ant; Do you deſire Juſtice? regard the Bee; Do you commend Temperance? take advice of them both. Do you praiſe valour? ſee the whole generation of Graſhoppers. Alſo look upon the Gnat (a little Inſect not worth ſpeaking of) that with her ſlender hollow noſe will penetrate ſo far into the thick skin of the Lion, that thou canſt hardly or not at all thruſt a ſword or javelin in ſo far. A man hath need of ſteel to bore into oaks; which the Wood-worm eats hollow with her teeth as the ſound can teſtifie, and as if ſhe had Polycletus his graving inſtrument, ſhe carves out ſeales. But if I would relate the skill of ſome of them in building, fighting, playing, working, perhaps I might be thought over-curious in theſe ſmall things, (of which the Law takes no notice) and *more negligent in greater matters. Now I come to their uſe, and that manifold, and in reſpect unto God, to Nature, or to Man, very great. For if the Gentiles according to that ſaying of the Apoſtle* Paul, Know God by the creatures: *truly they may hence, as from a higher watch-tower behold his Omnipotence, Majeſty. Providence. For ſome of them are ſo ſmall, that like thoſe lines* Callicrates *drew, they cannot be ſeen but with good eyes, and when the Sun ſhines very bright: as I remember I once ſaw a Fly far ſmaller than a Worm in wine. Would you have a Muſician? hearken to the Graſhopper, which is alwaies filled with ſinging, and lives without meat; and by her moſt pleaſant melody challengeth the Nightingal. Would you hear a Trumpeter? hold your ear to the Bee-hive, hear the humming noiſe: hearken a little to the Gnat, in whoſe ſmall beak the great Maſter workman hath formed that horrid and clanging ſound of the Trumpet. Do you deſpiſe a Lowſe? yet when the* Egyptian *Magicians deceived* Pharaoh *by producing the greater creatures, in the forming of this ſo contemptible a creature, they yeelded the garland to* Moſes. *Wherefore* Galen (17. de uſu partium) *breaks forth rightly into theſe words, after he had explained the wonderful generation of hairs, and the uſe of them: ſaith he,* If there be ſo divine vertue in parts that are ſo ſordid and nothing conſiderable, how great may we ſuppoſe the excellency of the ſame is which rules in the heart and brain? Truly if a man that is addicted to no ſect, would freely enter into the conſideration of things, conſidering the fabrick of any even the ſmalleſt creature, and that in every part though never ſo baſe, ſo great vertue reſides, he ſhall eaſily underſtand the excellency of the minde which is in man, and from the principles in phyſick ſhall aſcend to Divinity, which is far better and more excellent than all Phyſick. I ſuppoſe that no nation nor ſociety of men amongſt whom there is any Religion of the gods, have any thing comparable to the *Eleuſinian* or *Samothracian* Ceremonies; yet theſe do ſet forth but obſcurely the minde of all things which they profeſs; which is plain enough in the fabrick of all living creatures. For you muſt not think that in Man only the Art of the great Artificer is ſo great, as I have explained before, but what creature ſoever you would diſſect, you ſhall finde the like art and wiſdome to appear in it. And ſuch creatures as you cannot poſſibly diſſect, will make you to admire the more, the ſmaller they are. For if a certain Carver lately obtained exceeding great commendations, and that deſervedly, becauſe on a very ſmall Ring he ſo curiouſly engraved *Phaeton* riding in his chariot with four horſes, that you might ſee their mouthes, bits, teeth, 16 feet, and all their parts exactly framed: truly ſince all that workmanſhip had nothing in it more excellent than the leg of a Flea, it is evident that God that made the Flea, hath more Art and Excellency in him, that not only made it, but that he did it without any labour, and when he hath made it, doth continually feed and nouriſh it. *Wherefore let us leave off to admire any longer the vaſt and huge Coloſſe, and with the chief Maſter of true wiſdome, let us deſcend from the Cedar to the ſhrub, that is, from the moſt higheſt trees to the moſt contemptible weeds, or rather the moſt abject of all vegetables. And if he thought that the hiſtory of the meaneſt plant was not unworthy of a King to contemplate and write of, how much more excellent are Animals than Plants, ſo much more doth this work deſerve the patronage of a King, and philoſophical contemplation than that doth. When* Heraclides *had invited ſome of his friends to his poor Cottage, they ſtood only before the door, being afraid to come in becauſe the place was ſo narrow, or the room ſo foul: to whom he ſpake thus:* I pray come in, here are Gods alſo: *thereby implying that the greateſt God was in the ſmalleſt matters; and that there was a ſpirit in all things, though never ſo deſpicable. And truly, if the fabrick of Inſects were worthy of ſo great and divine Artificer, how can the contemplation of them be unworthy of the underſtandings of poor contemptible men? Amongſt the ſouldiers of* Paleſtina, *God raiſed great* Goliah, *a Giant amongſt men, yet would he have him overthrown by the ſling of one poor ſhepherd. Amongſt the* Spaniſh *Pilots, how many tall Mariners there were? yet they all ſubmitted to one ſmall* Drake, *and* Neptune *himſelf in a manner yeelded up his Mace to him. The Oke is great, and growes very large; but God deſtroyes it by the ſlender Ivy that clings about it, that it might not grow proud of its force and might. Farewel then all thoſe that ſo much eſteem of creatures that are very large. I acknowledge God appears in their magnitude, yet I ſee more of God in the Hiſtory of leſſer Creatures. For here is more of prudence, ſagacity, art, ingenuity, and of certain evident divine being. Wouldſt thou praiſe Nature, Gods ordinary hand? from* *whence wouldſt thou take thy beginning better than from Inſects? for where hath he planted ſo many ſenſes in a Gnat? where (ſaith* Pliny*) hath he ſet the eyes? where the ſmelling? with what curioſity hath he faſtned the wings? with what great art hath he extended the ſmall legs? and diſpoſed the hungry hollow belly, and hath made it thirſty after mans bloud? and as the ſmall beak it hath cannot be ſeen, he hath ſo made it double by a reciprocal art, that it ſhould be ſharp pointed to enter, and hollow to draw it forth. I let paſs that admirable variety, comelineſs, and fecundity that is in Inſects, which commend the riches of quickning Nature in greater multitudes, and ſet forth unto us the great plenty of it, which cannot be exhauſted. If you conſider men, as they cure almoſt all the diſeaſes of mens bodies, (as I ſhall declare more at large in their Hiſtory) ſo they furniſh their mindes with variety of examples of vertues, whereby they may inſtruct their ſouls, and teach them, that otherwiſe would be very wicked. Wherefore* Solomon *the principal Maſter of true wiſdome amongſt men, ſends ſluggards to the Ants hill, and tumultuous people to the bands of Locuſts, and incites mortal men to the contemplation of the Spiders in their houſes, that from the School of Inſects we may learn vertue, and may lift up our eyes unto the power of God, which are too much turned away from him. Go to, ſaith* Tertullian, *O Man thou relieſt upon thy own ſtrength, and diſtruſteſt God, yet conſider that there is ſo great ſtrength in the ſmalleſt creature he hath made, that thou canſt not endure it, nor ever be able to do as much. Imitate if thou canſt the Spiders curioſity, endure the ſting of the Spider Phalangium, avoid the naſtineſs of Lice, take a Gnat out of thy throat, ſleep when Fleas or Wiglice bite fiercely, keep thy trees ſafe from Caterpillers; drive away Weevils, Trees-worms, Vine-worms, and Timber-worms: wherefore as God ſhews his power more in this more notable Artifice of Inſects, ſo his great mercy is more apparent, becauſe there is hardly any diſeaſe of the minde or body, but a remedy may be fetcht from this ſtore-houſe to cure them both. If men ſhould deny that they contribute very much to feed, and fat, and cure many other creatures, Birds and Fiſhes would plead for them, and the brute beaſts that feed on graſs would ſpeak in their behalf: wherefore though with many every thing that is new, or hard to obtain, is moſt valued, and this is accuſed by the perverſeneſs of wicked men, and ignorance of unlearned men, to be a work of curioſity, oſtentation, and of no profit,*

Yet ſee its ſhape of things that are ſo ſmall,
Nature, and Fate, and great originall.

Wherefore I exhort thoſe chief men, which I named at the beginning, who have deſerved excellent well in the Hiſtory of Inſects, by communicating both the things themſelves and their pictures, that with that humanity they have been aſſiſting to me, and to Pennius *hitherto, they would continually proceed in the ſame for the augmenting of this work: for ſo ſhall they be truly accounted, as they are, Phyſicians ſons, and ſhall moſt amply ſet forth the glory of God and Nature. To which if I may appear to have had as much regard as I have had to the certain profit of men by this work, I ſhall not regard the envy of any man: for I never ſtudied to pleaſe all men, and yet I alwaies endevoured to offer unto the Creator of all things, ſome part of thankfulneſs.*

THE THEATER OF INSECTS: OR, Of leſſer living Creatures.

Chap. I.

Of the Names, Deſcription, and Differences of Bees.

OF all Inſects, Bees are the principal and are chiefly to be admired, being the only creature of that kinde, framed for the nouriſhment of Man; but the reſt are procreated either to be uſeful in phyſick, or for delight of the eyes, the pleaſure of the ears, or the compleating and ornament of the body; the Bee doth exceed them all in every one of theſe.

The Name.

They are called by the
- Hebrewes, ***Deborah.***
- Arabians, ***albara Nabalea Zabar.***
- Illyrians, ***Weziela.***
- Italians, ***ape, api, una ſticha, moſcatella, ape a ſcoppa, pecchi.***
- Spaniards, ***Abeia.***
- French, ***mouſches a miel.***
- Germans, ***ein ymme bynlē.***
- Engliſh, ***Bee, bees, been.***
- Flandrians, ***Bie.***
- Polonians, ***Pztzota.***
- Iriſh, ***Camlii.***

The Grecians give divers names to Bees, according to the diverſity of Nations, Countreys, and places; for divers nations do attribute divers names to them. But the moſt common and vulgar name is μέλισσαι, (but *Heſiod* cals the Bee μελία,) becauſe they are buſied in their work, ἢ περὶ τὸ μελᾶν, or becauſe of their ſweetneſſe, or rather περὶ τὸ μέλι, in regard of their honey, in making of which the Bee is a cunning artificer. For they are μέλιτται, from μελετῶ, becauſe there is no Inſect more ſtudious, more induſtrious, and laborious. *Heſiod* calls them πυρμυῖα as alſo ἀνθρήνη, *Geſner* had rather read πυρα for πυῤῥα, for it is alſo called ξυθόπλεγες. But *Suidas*, *Ariſtotle*, and others, do rather make it a Homet or a Waſp. Although *Gaza*'s interpretation, and the Poets do call it *Apis* a Bee. *Stephanus* calleth them σιμβλίδας, whence σιμβλίζω, that is, I do hive Bees. *Heſychius* calleth one kinde of Bee φύειον, and others call it πλάσιν from its framing. They are called alſo from their deſtroying of flowers ἀνθηδόνες, that is, deſtroy-flowers; or ξανθαί, that is, yellow, from their natural ſoyl and ſeed βυγενεῖς; and in regard they have blunter ſtings than Waſps, σῖμαι, and from the ſound and buzzing noiſe of their wings βομβύλιοι, βομβύλαι, though ſome in *Iſocrates* do interpret the name by Gnats, when he writeth that ſome have writ in the praiſe of βομβυλίων. But *Bombus* is properly the noiſe Bees make: ἀρχὴ, among ſo many ſignifications, ſaith *Heſychius*, Εἶδος μελίσσης ἀκέντρου, a kinde of ſtingleſſe Bee; *Iſidorus* calleth him the King or Emperor of the Honey-tents. In reſpect of his common inheritance, he is called ἀερίδιον, an airy inhabitant; in reſpect of its countrey δάρδιον, as it were the Trojan woodpecker. The Bees receive alſo divers appellations and names from their offices and imployments, as ſome are called ἡγεμόνες, from their command; ſome Σειρῆνες, from their ſweet ſinging; ſome from their work, ἐργοφόροι, and ſome are called πλάσται, or Potters, in regard of faſhioning of their combs, or their emplaiſtring of their waxen houſes, wherein the Bees do ſecure themſelves from the injury of the wind and rain. The Latines call theſe Inſects by one name, *Apes* or Bees. *Varro* calleth them ſometimes Birds, but improperly, for they are flying creatures but not Birds. Some think they are called Bees, becauſe their ſwarmes do cleave together by the feet, like a bunch of grapes. And beſide the moſt conceive that this name of *Apes* is compounded of *a*, a privative particle, and *pes*, a foot, as if they were produced without feet, as *Virgil* ſaith, *Trunca pedum primo*, that is, lame or deprived of feet. *Servius* is of the ſame opinion. And truly the new freſh brood (which the Grecians call χάδοι) do want feet, but in the time appointed by nature, out of the cruſty and waxy comb the Bee doth creep forth. But in regard it keepeth not this analogie of the name of *Bipes, edis, Tripes, edis, compes, edis*, the name is more ſimple, from whence comes the Diminutive *Apicula*, or a little Bee.

Apes or Bees whence ſo called.

The Definition of the Bee.

The Bee is an Inſect living creature, four-winged, bloudleſſe, skilful only in his artificial making of honey. For he that writ *the Garden of Health*, ſeemed to dote much, by confidently affirming that Bees were four-footed beaſts, for Nature only beſtowed on them four feet that they might go upright, and not more, leſt it might hinder their flying. But omitting this futile Author, let us more amply deſcribe this moſt profitable and wiſe Inſect.

The Deſcription of the Bee.

Their eyes are horney and made inwardly, and ſo is their ſting, neither do they want tongue, and teeth; they have four wings, which are dry (as thoſe of all other Inſects) ſhining, and faſtned or joyned to their ſhoulders, the laſt whereof are the leaſt, that they might not hinder their flying; two clawes as it were growing forth of the ends of their little feet, between which in ſtormy weather they carry a ſtone to poiſe and ballance their light bodies, leſt the impetuous violence of the wind ſhould drive them from their houſes; and therefore we need not give credit to *Lucian*, that they ought to be called Ζῶα ἄποδα, footleſſe creatures. They do not breath (by *Pliny's* favour) but pant, and are refreſhed by tranſpiration. Their ſtomach is framed of the moſt thin membrane, wherein they not only conſerve and keep their collected honey, but concoct, and purifie it; which is the reaſon that Bees honey may be kept longer then any Manna or aerial body, or rather is altogether incorruptible, as we will ſhew hereafter.

Ariſtotle 9. Hiſt. cap. 10. ſaith that there are nine kindes of Bees, ſix whereof are ſociable, and do live together, as Bees, the Kings of Bees, Drones, Waſps, Hornets, Moths. Alſo three ſolitary and inſociable, the greater Siren, the leſſer Siren, and the Bumble-Bee; of which kinde *Simius Albertus* does reckon up nine, but gives them ſuch harſh and barbarous names, that it ſeems he rather faigned them, than knew them. *Lib.* 8. *tract.* 4. *cap.* 2.

But Bees do differ, and are diſtinguiſhed in regard of their matter, form, wit, diſpoſition, and office, and theſe are all their genuine, and natural differences, which I have collected out of infinite Authors. Concerning their matter (if we may credit the curious ſearchers into the works of nature) ſome of them are called λεοντογενεῖς, or the Lions brood; others ταυρογενεῖς, the Bulls brood; and ſome βουπαῖδες, or the Oxe brood; and ſome μοσχογενεῖς, or the Calves brood. But the beſt and nobleſt bees are generated and bred out of the Lion, and the Kings and Princes of them do derive their pedegree and deſcent from the brain of the Lion, being the moſt excellent part of his body: it is no wonder therefore if they proceeding and coming from ſo generous a ſtock, do aſſail the greateſt beaſts, and being endued with a Lion-like courage, do fear nothing. The nobleſt Bees next unto theſe, are thoſe that are generated out of the Bull, being alſo a ſtrong and valiant beaſt, the excellency both of their diſpoſition and bodies being equal to their ſtock and pedegree. The next are the Cow-Bees, or Oxe-Bees, which are indeed very induſtrious, laborious and profitable, but of a milder diſpoſition, and leſſe inclinable to anger. The Calves carkaſſe doth generate more ſoft and tender Bees, excellent makers of honey, but not able to endure labour, in regard of their tenderneſſe, and in regard of the weakneſſe of their matter ſhort lived. Some alſo do write, that Bees may be bred out of their own aſhes ſprinkled with honey, and laid forth in the ſun, or ſome warm place, which ſort may be called in Greek αὐτογενεῖς, or Self-begetters. Bees of the beſt ſhape are ſmall, variouſly coloured, round, and bending; the worſer ſhaped are long. The difference of their formes and ſhapes ariſeth from four cauſes; Nature, place, ſexe, and age. For ſome are domeſtick, or houſe Bees; others are wilde or wood Bees, theſe delight in the familiarity and company of men, but not the other, which do exerciſe themſelves in making honey in trees, clefts and crannies of the earth, and in the rubbidge of old houſes and walls. Again, ſome of the tame and gentler ſort of Bees, do live in pleaſant gardens, decked and beautified with all ſorts of flowers, theſe are great, ſoft, fat and large bellied: others are kept in villages, going far for their food, and feed on flowers they light upon by chance. The leſſer more hairy, yet for their work, induſtry and skill, they exceed the other. Of both kindes ſome are bred with ſtings (as all true Bees are) and others without ſtings, as the baſtard Bees, which have a greater and ſofter belly, throat and body, but not famous either for manners, or ingenuity. They call this kinde of Bee the Drone, becauſe they ſeem to be

The difference of their ſhapes from nature.

be laborious, and are not; or becauſe under the colour of labour (for they ſometimes carry wax and diligently faſhion their combs) they devour the honey. And theſe are of a black ſhining colour and larger bodied. Moreover ſome bees are deſcended from their Kings and Dukes, whereof *Ariſtotle* maketh two kindes. The yellow, which is the beſt, and the black ſtreaked. Others do reckon three Kings, differing in colours, black, red, and ſpotted, or ſtreaked. *Menecrates* doth report, that the divers coloured are an inferior ſort of Bees; but thoſe ſtreaked and diverſified with black, are the better. All of them are twice as big as other Bees. He that is elected Monarch or King of the whole Swarm, is alwaies of an excellent ſhape and twice as big as any of the reſt; his wings are ſhorter, his thighs ſtraight and ſtrong, his gate loftier, his aſpect more ſtately and majeſtical, and on his forhead a white ſpot like a ſhining Diadem or Crown, differing much from vulgar Bees in regard of his ſhining colour. But the place doth alter, ſometimes their form, and ſometimes their nature, ſex alſo and age do change them in both reſpects. For in the *Molucco* Iſlands Bees are like to winged Ants, but ſomewhat leſſer than the greater ſort, as *Maximilianus Tranſylvanus* in his Epiſtle to the Biſhop of *Saliſpurg* eloquently relateth: In *America* near the Rivers of *Vaſſes* and *Plate*, the Bees are not like ours, being no bigger than thoſe ſmall flies which trouble us in ſummer, they build their neſts in hollow trees, and they make far greater combs and fuller of holes; the end or tip of their wings (as *Oviedus* and *Thevetus* relate) ſeem to be bitten or cut off, in the middle whereof they have a white ſpot, and they have no offenſive ſtings. The wax which they make is of a duskiſh pitchy colour, and they are for the moſt part evil conditioned. *Ariſtotle lib.* 5. *hiſt. cap.* 22. mentioneth a certain kinde of Bee, that is of a ſoft induſtrious nature, which maketh honey twice in a moneth, being of a gentle pleaſing diſpoſition, and buſied only in making of honey. Such there are alſo in the Countrey of *Peru*, which do make a ſoft and melting kinde of honey, which do ſtop their doors ſo cloſe with wax, that they leave but a very ſmall hole for their ingreſſe or egreſſe. But almoſt all our Bees in *Europe* are of a blackiſh colour, not ſo much in regard of the eaſie concoction of thin ſubſtance, than that they ſeem to be of a groſſer diet, and of a thicker compoſure, and therefore the thicker matter doth remain within the skin, which the Bees of *Peru* and *Pontus*, by reaſon of their thin skins, and the fineneſſe of their dewy nouriſhment, do eaſily thruſt forth; unleſſe that be the cauſe, we muſt aſcribe the variety of colour, to wanton nature: as we do for white bears, and white black-birds; which ſeeing ſhe her ſelf is various and of many ſhapes, it is no wonder, ſince ſhe delights in variety of colours that ſhe hath not made all Bees of one colour. The kindes of common Bees, (as *Columella* obſerves out of *Ariſtotle*) are thus diſtinguiſhed; ſome are great, round, black, hairy: others are leſſe, round, of a dark colour, rough hair: there are yet others leſſe than they, and not ſo round, but more fat, of a ſtraw colour on their ſides: there are ſome leaſt of all, very ſlender, ſharp, whoſe bellies are various coloured from yellow, and very ſmall. But the blackiſh are moſt to be approved of, that are very little, round, lively, ſhining, gentle, having (if we credit *Virgil*)

> *Their bodies ſhine with equall ſpots of gold.*

The difference of their minds from the place.

The greater Bees are, and fatter or longer, the worſe they are: and if they be fierce and waſpiſh, they are worſt of all. But their anger is pacified by the daily company of their keeper, and they are made more tame with the only tinckling of braſſe. The Bees called *Chalcoides* in *Crete*, are of a brazen colour, and ſomething long, and are ſaid to be very implacable and given to fighting, exceeding all others in their ſtings, and pricking more fiercely; ſo that they have driven the Citizens out of the Towns by their ſtings. And *Ælian* out of *Antenor* relates, that in the Mount *Ida*, the remainder of that race, dwell and make their combs. Such are alſo the Bees at *Carthagena* like to Muskitos. *Pauſanias* writes in *Atticis*, that Bees are ſo gentle in *Halizonus*, that they go forth to feed amongſt men, and wander where they pleaſe, for they are ſhut up in no hives; wherefore they make their works every where, and that ſo faſt, that you cannot part the honey from the wax. They are ſmooth, ſhining, of variable colours, and not unlike to our good Bees. Laſtly, ſince all Bees are by nature void of poyſon, yet the place cauſeth the long Bees, and the diſtaffe faſhioned, about *Carthagena* in *America*, to make venomous honey; where they collect honey that is infected with the contagion of trees, winds, air, and earth it ſelf; and be it what it will be, they lay it up in their cellars. Alſo Bees ſubterreſtrial have another form and nature. For thoſe that work in hives and trees, are greater, longer, ſofter, better wing'd, more yellow on their backs and bellies. But they that are under the earth build in little holes, and are ſhort compacted, with black heads and foreſails, hairy almoſt on their whole body; a yellow down colour on their ſides and rump, and that doth much adorn them. Of Bees, ſome finde themſelves houſes in woods, ſome are received into houſes made of ſtraw or horn; ſome civil and well nurtured Bees, who will not refuſe the care of the Bee-maſter who hath skill, but will much love and delight in it. The prince of Philoſophers confounds the ſex of Bees: but moſt writers diſtinguiſh it: ſome ſay the females are the greater, and without ſtings; others ſay they are leſſe and have ſtings. The ſounder Philoſophers, (whoſe opinion I follow) acknowledge no males but their chief leaders, which are more ſtrong, greater, more able, and alwaies ſtay at home for propagation, and ſeldome go forth but with the whole ſwarm; whom nature hath commanded to be frequent in Venus occaſions, and ordained them to ſtay alwaies at home

Differences of the corporeal form from the place.

Difference from their Sex.

with their females. Experience witneſſeth, that theſe do foſter their young as birds do, very diligently, and ſit upon them, and thruſt forth their young Bees, when the membrane is broken. The differences of their Ages are known by the habit of their body: for thoſe that are new come forth have moſt thin and trembling wings; thoſe that are a year old, as alſo, of two or three years old, are very bright, neat, and are of the likeneſſe and colour of oyl; but at ſeven years old they lay aſide all fatneſſe and ſmoothneſſe; nor can any one tell certainly by their figure and quality of their skin and body (as it uſeth to be with horſes) how old they are. The elder of them, are hairy, hard, full of wrinkles, lean, rough to your ſight and feeling, long, ſtarveling, and noted by a venerable kinde of hoarineſſe. And this was ſhewed to the Dutcheſſe of *Somerſet* when I was a youth, under whoſe chamber window there was the very ſame hive of Bees that had been there 30 years, and this juſtifies *Ælians* relation of the ſame kinde. But as they appear more ugly in form, ſo are they before the reſt in induſtry and experience, for years have taught them skill; and by length of time and practiſe, they know better how to gather and make honey.

Chap. II.

Of the Politick, Ethick, and Oeconomick virtues of Bees.

BEES are ſwayed by ſoverainty, not tyranny, neither do they admit of a King properly ſo called, by ſucceſſion or by lot, but by due advice, and circumſpect choice; and though they willingly ſubmit to regall authority; yet ſo, as they retain their liberty; becauſe they ſtill keep their Prerogative of Election; and when their King is once made ſure to them by oath, they do in a principal manner love him. He as he doth excell all the reſt in portlineſs and feature of body (as is above ſaid) ſo likewiſe (which is the chief thing in a Prince) in gentleneſſe of behaviour. For although he hath a ſting as others, yet he never uſeth it to puniſh withall, inſomuch that ſome have thought that the King is without a ſting. For their law is the law of nature, not written but imprinted in their manners; and they are yet more gentle in puniſhing, becauſe they have the greater power; and although they ſeem ſomewhat ſlow in revenging private wrongs, yet ſuffer they not the refractory and rebels to go unpuniſhed, but wound and ſtab them with their ſtings. So deſirous they are of peace, that neither with their wills nor againſt, do they offer any annoyance. Who would not then utterly abhorre the *Dionyſian* Tyrants in *Sicily*, *Clearchus* in *Heraclea*, *Apollodorus* the *Caſſandrian Robber*? Who would not deteſt the villany of thoſe cloſe Paraſites to Kings who affirm that Monarchy is no other, but the means how to accompliſh or ſatisfie the will, and a device how to maintain luſt? that which ought to be far from a vertuous Prince, leſt while he would ſeem to be a man, he betray himſelf to be worſe then theſe little winged beaſts.

And as their manner of life is not pedantick or according to the vulgar ſort, ſo neither is their birth. For the royal Race is not begotten a little worm at the firſt, as the Bees are, but preſently able to fly.

And if he chance to finde amongſt his young ones any one that is a fool, unhandſome, hairy, of an angry diſpoſition, ill ſhapen, or naturally ill conditioned, by the unanimous conſent of the reſt, he gives order to put him to death, leſt his ſouldiery ſhould be diſordered, and his ſubjects being drawn into faction, ſhould be deſtroyed. He ſets down a way to the reſt, gives order what they ſhall do, ſome commands to fetch water, others to make honey-combs within, to build them up, and garniſh them; otherſome to go and get in proviſion: thoſe that are ſtricken in years he cheriſheth at home, the younger he exerciſeth in labour and viciſſitude of imployments; and although he himſelf hath immunity from mechanick labour, yet as cauſe ſhall require, he alſo refuſeth not to work; nor ever doth he go abroad but for healths ſake or neceſſity. If he be by reaſon of age in health, he marches as General in the Vantguard of his Army, and in perſon oppoſeth himſelf to all encounters; neither is he born by his attendants willingly, unleſſe it be when he is ſo old and diſeaſed that he cannot either go or fly. When night comes on the ſignal being given by the Trumpeter, the common ſort are commanded to their lodging and the watch being ſet, every one betakes himſelf to his reſt. As long as the King lives, all the ſwarm enjoyes peace, and all things are in quiet; for the Drones keep themſelves willingly in their own cells, the elder Bees are content with their own places, nor do the younger run out of their own into the elders lodgings. The King lives apart from the reſt in a more eminent and large palace, with a waxen fence curiouſly made, compaſſed about as it were with a kinde of wall. A little way from him dwell the Kings children, to whom if their father or mother do but hold up the finger (as they ſay) they are huſht.

But the King being dead, the ſubjects are perplext, the Drones lay their young ones in the Bees cells, and all things are out of order. *Ariſtotle* makes mention of more Kings or maſter Bees than one in a ſwarm; which I had rather terme Vice-royes or petty Kings; For as much as *Antigonus* teſtifieth, the Swarm is in no leſſe danger when it hath many Kings, as when it hath none at all. *And ſo much be ſpoken of the good Kings.* The bad are more hairy, and more dark, black and various coloured; you will condemn their ſkill when you obſerve their habit.

Their Kings in ſhape and perſon differ, one
Bright, as it were with golden ſpangles dreſt;
And gorgeous glittering ſcales, to look upon,
The other's a foul, ſordid, duſty beaſt,
Sluggiſh, large pauncht, unworthy of the Train.
Kill this, but give the other leave to reign.

And thus far of the Kings and Nobility, now let us proceed to ſpeak of the vulgar ſort or Commonalty of the Bees.

Bees are neither wilde nor tame creatures, but a middle kinde of nature between both, but of all in a manner the moſt ſerviceable and moſt profitable. Their ſting both keeps them alive and kils them; for if that be once loſt, they cannot live, but being armed therewith, they guard the Swarm from all hoſtile invaſion. There are none of them idle, although all do not, have not the ſkill to make honey: neither do they which can do nothing at all, become like Drones; for they do not, as they do, ſpoyl the combs, nor ſteal the honey. But they themſelves are nouriſht by the flowers, and flying abroad with others feed together with them. Albeit alſo there are ſome amongſt them have not the induſtry to make and ſtore up honey, yet every one hath his work, and his art wherein he doth imploy himſelf. Some bear water to the King, and to ſuch of the Bees that are ſpent with old age, and are decrepit.

The more ancient and graver ſort of *Bees* are choſen to be of the Kings Life-guard, or Eſquires of the Kings Body; if they be any way in health, as being of known truſt, and well ſeen in the right ordering and managing of State-affairs. Others of them adminiſter Phyſick, and undertake to cure ſuch as are ſick; and of the Anniſe-flower, Saffron, and Violet, collect together, compound, and give them to drink, a moſt medicinable and cordial Honey. If any of them chance to die by reaſon of Age or ſickneſſe, forthwith the Bearers meet together, which carry forth the Corps on their ſhoulders as on a Beer, out of doors; leſt they ſhould any way pollute or defile their clean and neat Hives with any uncleanneſſe, filth or putrefaction.

Neither are the Bees without their commanders, Captains, Lievtenants, Trained-bands, Cornets, Trumpeters, Fifes, Scoutmaſters, Watchmen, and *Souldiers*, an Army which do (as if it were a little City) guard and defend their Honey: and do in condign manner puniſh and torment the Dors that fly thither, and Worms that undermine them.

Leſt they ſhould be taken for Drones, as they fly they make a buzzing or humming noiſe, which according as they begin to fly or ceaſe, is heard or not heard; which ſound whether it proceed from their mouth, or from the motion of their wings, *Ariſtotle* and *Heſychius* do much contend about. Neither was I ever ſo quick ſighted, as to determine of a matter ſo exceeding intricate and obſcure. But the Fifes, and Cornets, ſeem to make that ſound or noiſe which *Heſychius* calls ζιγγν, the Engliſh call it ſinging; and that they make their ſignal or watch-word when they are to watch, when to ſleep, when to go to work.

So great is their care of preſerving their King, that they ſuffer him not to go abroad alone, but gathering cloſe together on both ſides, their company being divided, they hem him in and guard him as he goes along. But if perchance in their journey the King ſhall wander out of the way, or ſhall be gone out of ſight, being driven by violence of ſtormy weather, then all make ſearch after him, and do follow him by the ſent as it were, till they know certainly what is become of him. And if he be tyred with flying, or tediousneſſe of weather, the company bearing him up with ſtrength of their wings as it were in a Chariot convey him home. If he die, all of them go their waies; or if they chance to ſtay ſome time after, they make only combs, but no Honey; and within a while after, being altogether idle, full of diſeaſes, ſtarved, wallowing at laſt in their own filth, they miſerably end their lives.

Without a King they cannot be, againſt whom they make not the leaſt reſiſtance, much leſſe do they put him to death, unleſſe as tyrants are wont he make his luſt the rule of his Government, or being negligent of the Common-wealth, takes no care of it: yea if he uſe often to remove from place to place (which he cannot do without great detriment to his ſubjects) they do not forthwith kill him, only crop his wings; and if he amend his manners, and demean himſelf as he ought to do, afterwards they love and reſpect him as well as ever they did before.

If he ſhall fly away and leave the Swarm, they ſend for him back again, and if he fly out of the Kingdome, they follow him; and finding him out by his ſent as it were by a track (for above all the reſt, the King or Maſter Bee hath a very curious ſmell) they bring him back unto his royal Palace again. Not a Bee whatſoever dares go out of doors to feed any where, unleſſe the King or Maſter Bee go out firſt and challenge his priviledge of precedency. For I am ſcarce of *Ariſtotles* minde, that the King never goes abroad except it be with the whole Swarm, which is a very rare thing. But when the Swarm by reaſon of the tyranny of their Prince are forc'd to remove to ſome other place, changing their ſoyl and habitation, as unwilling ſo to do, then they make an unwonted noiſe, as it might be of a trumpet ſome daies before; and two or three daies before, a few of them hover up and down about the Hive. But when all things are ready for flight, away they fly all together, and if the Tyrant whom they left behinde purſue and follow them, they kill him.

But a good King they never deſert, and if he die by any infection, ſickneſſe, treachery, or old age, the Nobles, together with the common people lament and bewail him; neither do they afterwards go abroad at all, or fetch in any proviſion, but fill all their houſes with a ſorrowful murmur, and thronging about the Corps, make moſt tragical lamentation. Afterwards privately conveying him from the common multitude, they carry him out of the Hive, and make a moſt doleful cry all about the place. Nor doth a day put a period to, or abate their ſorrow, but they continue it ſo long, till by reaſon of grief and hunger they all die. Take the King or Maſter-Bee, and you take all the Swarm, if you miſſe of him, all the reſt convey themſelves away and go to others. They cannot endure more Kings then one, the houſe of the uſurpers they throw down and deſtroy their family. But if it be ſo that there be two Kings or Maſter-Bees in one Swarm, (as ſometimes it falls out) one part adheres to one King, and the other to the other; whence it comes to paſſe that in one Hive divers forms of combs are found: where they ſo behave themſelves, that the one doth not entrench upon the others bounds, or invade his Territories.

And as for their Oeconomick or houſhold vertues, they uſe Parſimony as the chief ſtay of their family, and having in the ſummer ſeaſon gathered a ſufficient ſtock, or ſtore of honey, they do not profuſely laviſh it, but ſuſtain themſelves with it in the winter, and that very ſparingly; and ſo feeding themſelves with a ſparing diet, and that of the beſt and pureſt food, they gain that as a reward of their ſobriety, thereby to lengthen their lives, and prolong their daies. Neither are they ſo gripple or ſordidly parſimonious, but that when they finde that they have gathered more honey then will ſerve the number of their family, they do freely impart and communicate ſome portion thereof to the Dors or Drones.

Theſe alſo are arguments of their cleanlineſſe, that they never lay the excrements of their bodies (unleſſe ſickneſſe, extremity of weather, or meer neceſſity compell them) in their Hives; as alſo that as ſoon as any of them dye they preſently carry them forth, and quit the Hive of them; no fleſh or putrid matter, no withering herb, no fading or ſtinking weed do they touch or come near. They never kill their enemy in the Hives, they drink nothing but the pureſt running water they can get, they will by no means remain or dwell in an unclean, ſluttiſh, naſty houſe or room. The ordure of thoſe that labour, and of thoſe that are ſick within, they lay upon a heap together without doors, and as ſoon as they have any leiſure, the bearers carry it away.

Neither are they altogether impatient of muſical ſounds, as other ruder ſorts of creatures are, but are very much taken and delighted therewith; provided it be without variety, ſimple and unaffected. And although they cannot dance by meaſure or according to the juſt number of paces, as the Elephant is ſaid to do; yet according as he that tinks on the brazen kettle, pleaſeth, ſo they ſlack or quicken their flying; if he beat faſt and ſhrill, then they mend their motion, if dully and ſlowly, then they abate it. Neither hath nature only made them the moſt ingenious of all other creatures; but very tame, and tractable by diſcipline and education to the keeper of them; for they are all at both his beck and his call, and whatſoever he pleaſeth to do, none of them gainſay or forbid. If he beat them, they complain not, and if he rob them and ſpoyl their combs, they make not the leaſt murmuring, or ſhew the leaſt diſcontent. Who would not ſay this were an argument of a moſt noble and generous diſpoſition, ſo to ſuffer the rigid commands of their keeper; and yet by no means to obey or ſubject themſelves unto the diſcipline of any ſtranger whatſoever?

It is wonderful what ſome do obſerve as touching the temperance and chaſtity of them; for whereas all other beaſts, the Elephant only excepted, do couple in open view, and the Waſps not much differing in kinde from them do the like; the Bee is never ſeen to generate openly, but either doth it within doors with modeſty, or without when none ſhall be by to obſerve it.

Neither, as the report goes of them, are they leſſe valourous then they are chaſte or temperate.

Whileſt they expoſe their bodies in the war,
And nobly dye, receiving many a skar.

Their war is either inteſtine, or civil, or foreign and with ſtrangers. Of their Civil wars there are divers cauſes, as the multitude of the nobility treacherous to King and State, dearth of victuals, narrowneſſe of place, when they are not able to live by one another; as alſo corruption of manners, and ſluggiſhneſſe. Now if they ſuperabound in Nobility (as ſometimes it falls out) they put to death ſo many of them as ſeem to be ſuperfluous; leſt their number ſtill increaſing they ſhould force and over-power the King himſelf, or entice the common people into ſedition. But they deſtroy them then chiefly when they have but a ſmall iſſue, and have not where elſe to beſtow them, thoſe together with their combs (if at leaſt they have gotten any) they throw down, and pluck to pieces. The Dors alſo and Drones they kill, as often as they want room for their works (for they take up the innermoſt part of the Hive) and take away from them both their honey, and their victuals. As alſo when their honey fails, and there is a dearth, then they go to pell mell amongſt themſelves, and fight as it were for life and bloud: the ſhort Bees they fall upon the long, the ſmaller ſort ſet upon the Drones (as idle and unprofitable) with all their ſkill and force they can uſe. In which conflict if it ſo come to paſſe that the ſhort Bees have the better, they will prove an excellent Swarm; but if fortune give the longer the day, they will live ever after idly, and make no hony worth any thing. But that ſide which overcomes is ſo mightily bent upon rapine and revenge, that it puts all to the ſword, yeelding no quarter or truce at all.

As concerning their war with forein Enemies, there is no creature under heaven ſo bold and adventurous as they are, inſomuch, that whatſoever, whether man, or beaſt, or bird, or waſp ſhall moleſt them, vex and ſeek to deſtroy them, they ſharply ſet themſelves againſt, and according as they are able wound them with their ſtings. Unclean perſons, or any that uſe ſweet oyls or perfumes about them, or thoſe that wear curled or ruffled locks, or red clothes (as reſembling the colour of bloud) they cannot in any wiſe endure; as alſo all baſe and vile companions. Whereas on the contrary their maſters, keepers, governors, and thoſe that make much of them they do moſt dearly love and affect, and ſitting upon their hands in ſtead of ſtinging them, they ſeem rather to tickle, and as it were by way of ſport to lick them without any the leaſt harm at all. Yea they may have free leave when they are uncovered in the heat of ſummer, to gather their Swarms with their bare hands, to handle them, to diſpoſe of them at pleaſure, to toſſe them to and fro, to ſit or ſtand before the Hives mouth, and therehence to drive away the Dors, Drones, Waſps and Hornets with a wand. But if any of them have loſt his ſting in ſkirmiſh, as a ſouldier having his armes taken from him, he is quite diſheartned, and living not long after dies with grief.

When they go forth to battel, and are ready to give the onſet, they tarry while the ſignal is given, and then they ſurround their King (if he be one they love) and in one battel determine the quarrel. But in the fight, what wonderful valour, ſtrength and courage thoſe little beaſts do ſhew; both I my ſelf have ſeen and know, but they far better who report that whole fields of armed men, have been conquered by the ſtinging of them, and Lions, and Bears and Horſes ſlain with them. But yet (as fierce and warlike as the are) by daily converſe with them they become tame, and unleſſe they be provoked they live very quietly, ſo that any man may ſtand before their Hives, if not on purpoſe to diſturb them, and they never offer to hurt him.

But if we ſhould go about to ſet forth at large their ingenious diſpoſition, cunning workmanſhip, induſtry and memory, we ſhould not with *Virgil* the Poet yeeld them only to be endued with a ſmall portion of divine inſpiration, but even wholly to be poſſeſt with a rational ſoul, and (to erre with *Pythagoras*) to have the underſtanding of the moſt ingenious man infuſed into them by a μετεμψύχωσις.

For as ſoon as they are lodged in a clean and ſweet Hive, they gather from thoſe plants that diſtil moiſture and yeeld gum, (as from the Willow, Elm, and Reed) and even from ſtones themſelves, a kinde of Glue very thick and clammy, and with that (which the Latines call *Commoſin*, the Greeks μίτυς,) they lay the firſt foundation of their work, and dawb it all over as with the firſt plaiſter or rough-caſt, the which afterwards they cover over again with a kinde of wax mixt with roſin and gum, laſt of all with Bee-glew. When this tripple wall is artificially finiſhed, they do not only deceive the moſt curious and neat obſerver of their works, but without any man taking notice, they do better and better arm and fence themſelves againſt wind and weather, vermine, and all their enemies whatſoever. When this is done they frame their Honey combs with that ſkilful Architecture, as that they may ſeem to put down *Archimedes* himſelf in his own Art. For firſt of all they build the cells of the King and Nobility in the upper or more eminent part of the comb, large, fair and ſtately, wrought with the moſt pure wax of all; which alſo the better to ſecure and defend the Kings perſon, they compaſſe round about as it were with a certain fence or wall. And as their Bees are of a threefold ſort or condition, ſo they make a threefold diviſion of their cells. Thoſe that are aged and ſtricken in years (being to be as counſellors of State, and Eſquires of the Body) have their lodgings near the Kings Court; next of all to them, thoſe of the firſt year, or young fry, thoſe of riper age, and luſty in body they place utmoſt of all, as thoſe that ſhould be able to fight for their King and the royal Iſſue. Notwithſtanding *Ariſtotle* writes, that they firſt provide cells for themſelves and their iſſue, afterwards for their Kings, and laſt of all for the Drones. And as in the making of their combs, they faſhion them according to the largeneſſe, and figure of the place; and thoſe either round, or long, or ſquare, &c. according as they pleaſe, and ſometimes eight foot in length; ſo on the contrary their cells are tyed to a ſtrict Geometrical form exactly, to wit, Sexangular, or with ſix corners, only juſt fit and convenient for the bulk of the inhabitant.

But thoſe cells where they make their Honey, and thoſe which are for nurſeries for their young ones, are all double from one ſide of the Honey comb to the other, ſeparated one from the other with a thin partition or mound.

Thoſe Ligatures whereby the Combs are faſtened to the ſide of the Hive, are more ſtraight and are empty of honey, being alſo much more firm and ſtrong, that they may the better bear the reſt of the weight which depends upon them. Thoſe Combs likewiſe which they cover or plaiſter moſt with wax, in thoſe they uſe to ſtore a greater quantity of Honey, as in a more ſafe and ſecure repoſitory.

Now the whole Honey Comb contains four ranks or diviſions of cells, the firſt the Bees take up, the next the Drones, the third the Gentles, and the fourth and laſt is ſet apart for a ſtore-houſe for Honey.

There are that affirm that the Drones do make Combs in the ſame Hive with the Bees, but cannot make any Honey at all; whether it be by reaſon of unwieldineſſe, or corpulency of their bodies, or their natural inbred ſloth, is uncertain. But if their Combs begin by reaſon of the weight of the Honey to ſhog, or to be ready to fall, they raiſe them up and under-prop them with arched Pillars, that they may go under them, for to every Comb there muſt of neceſſity be a ready paſſage) and whereby they may execute their ſeveral offices which are appointed them. In ſome places as in *Pontus* and the City *Aniſum*, they make white Honey in trees without any Hives at all. But as for the others in making their Combs ſo beyond all humane Art, who would not acknowledge for truth, that of the Poet,

Eſſe Apibus partem divinæ mentis & hauſtus
Æthereos——————

That the Bee hath in it a particle of divine underſtanding, and heavenly wiſdome? Who I ſay will deny them to have fantaſie, memory, and ſome kinde of reaſon? But I will not argue the truth of this, neither will I affirm with *Pythagoras*, that the ſouls of other wiſe and ingenious creatures, or of men, do paſſe from them into the Bees. But yet notwithſtanding he that ſhall warily weigh and obſerve how they give out to every one his ſeveral task, ſome to make Combs, others to gather Honey, dreſſe up their rooms, cleanſe their layſtals, to prop up and repair their ruin'd fences, to cover their boxes, to draw out the ſpirit of the Honey, to concoct it, to bring it to their cells, to ſerve thoſe that are at work with water, to give food at certain ſet hours to thoſe that are bed-ridden, feeble, and aged, with ſo great care to defend their King or Maſter-Bee, to drive away Spiders and all other their invaders or annoyers; to rid their Hives of their dead, (leſt their work ſhould be marred with ſtench or putrefaction) to be able every one to return to his particular cell; in a word, to ſeek their living as near home as they may; when they have ſucked dry the neighbouring herbs or flowers, then to ſend out ſpies to ſee for paſture farther off, upon any night deſign or expedition, to lye under the leaves of the trees leſt their wings being wet with the dew, their ſpeed home the next day ſhould be hindred; in boiſterous weather, to poiſe or ballance their light bodies with a little ſtone taken up into their mouthes, and when the wind blowes hard, to recover the windy ſide of the hedge to ſhelter themſelvs, and the like; ſurely he will confeſſe of his own accord that their Common-wealth is wonderful well ordered, and that there is very great diſcretion and underſtanding in them.

I had almoſt let paſſe that natural στοργὴ, or affection, that great conſtance ſeldome ſeen in Parents of this Age, wherewith they care for their young ones, in the Hive where they have laid them they ſit upon them as birds do, and never go abroad unleſſe enforced with extreme hunger; and when they do, they preſently return in again, as if they were afraid leſt the Spider if they tarried long (which many times happen) ſhould cover the mouth of the cell with his web, or their little ones being benumm'd with cold ſhould be in danger to be ſtarved. But yet neither are their children delicate, or nicely brought up, for at three daies end (aſſoon as they have any wings) they ſet them to work, and have a ſtrict care that they loyter not, or take a haunt of Idleneſſe.

So much foreknowledge likewiſe have they, that they can preſage rains or cold weather to come. And then (by inſtinct of nature) they never go far abroad, but hover about their ſtocks or Hives, and ſit upon them as upon flowers. When they go forth to paſture (which is not at ſet times, but only when it is fair weather) then they labour and toyle ſo hard, and ſo lade themſelves with Honey, that oftentimes through wearineſſe they fail in their journey, being not able to reach home; and whereas ſome of them by reaſon of roughneſſe and hairineſſe become unapt for labour, then they rub themſelves againſt rugged ſtones or the like, till they be ſmooth again, and ſo they buckle to their work afreſh as hard as they can drive.

The youth or middle aged Bees are imployed abroad and bring home thoſe things which the King or Maſter-Bee gives them in charge, the elder ſort take care of the family at home; and do order and diſpoſe of the Honey which the middle aged Bees gather and make abroad. In the morning they are all ſtill and ſilent till ſuch time as the Maſter-Bee gives three hums and raiſeth them up, and then every one makes haſte out to his ſeveral imployment. In the evening when they return home, they at the firſt make a great noyſe and tumult, and within a while afterward by little and little ceaſe, till at length the Captain of the watch flies about and makes a buzzing, as it were commanding them to their reſt; after which ſignal given, they are all ſo huſht and ſtill, that if you lay your ear to the Hives mouth you cannot perceive the leaſt noiſe they make, ſo ſubject are they to their rulers and governors, and at their beck and nod are preſently quach't.

Chap. III.

Of the Creation, Generation, and Propagation of Bees.

Creation.

Foraſmuch as Philoſophers have given out that Bees (for the firſt ſin of mankinde) are begotten of putrefaction; there are not wanting thoſe that deny they were created in the firſt week of the world: I leave the queſtion wholly to be determined by others; although ſome Divines, eſpecially *Dubravius* and *Danaus* do abundantly affirm that they were created with the perfect Bodies.

Generation.

Of the firſt Generation of Bees *Ariſtotle* hath a long diſcourſe. The Philoſophers following him have rightly determined in my opinion, that their Generation doth proceed from the corruption of ſome other body: as of a Bull, Oxe, Cow, Calf, very excellent and profitable beaſts: the which not only worthy men and without all exception do report; but even ruſtical, and common experience doth confirm. They ſay that out of the brains of theſe beaſts are bred the Kings and Nobility, and of their fleſh the common ſort of ordinary Bees. There are likewiſe Kings that are bred out of the marrow of the chine-bone, but then thoſe that come of the brains do far excell the other in feature or comlineſſe, in largeneſſe, in prudence, and in ſtrength of body. Now the firſt transformation of this fleſh into theſe Creatures as it were by a kinde of conception you ſhall then perceive to be when as theſe little imperfect creatures appear in great numbers about the Oxe, Lion, *&c.* in a ſmall white hew, and as yet without motion; but increaſing by degrees, and their wings by little and little growing out, they come to their proper colour, flying to and hovering about their King or Maſter-Bee; but yet with ſhort wings and trembling as unaccuſtomed to flight, and by reaſon of the weakneſſe of their limbs. Now what countreys do moſt conduce to the generation of Bees, and what are moſt hurtful to them, we ſhall afterwards handle when we come to treat of Honey. But in general there are very few places in the world to be found, (unleſſe it be in a very barren countrey, and unwholſome air, and where no food fit for them can be had) in which Bees cannot breed and very well live. But where there is perpetual froſt and ſnow (as in *Scanzia*) or where the countrey is barren of herbs and trees, (as in *Thule*) there they are neither able to breed nor live. As alſo for the poiſonous condition of the airs and nature of the ſoil ſome ſort of Bees do not endure to live there, as in the Iſle of *Myconos* it is reported, that if Bees be carried thither (if *Ælian* be to believed) they preſently dye. But whereas *Munſter* ſaith of *Ireland*, and *Solinus* of *Great Britain*, that thoſe Countreys are altogether without, and that they cannot live there, if they had not ſpoke rather by hearſay, then of their own knowledge, they would have written that every village or town almoſt is full of them. And thus much may ſuffice to have ſpoken of the Generation of Bees, come we now to their Propagtion; concerning which Authors have divers opinions.

Propagation.

Some, ſay they, never couple, or bring forth, becauſe no man ever yet ſaw or could tell whether they did ſo or no. Others ſay, that when they have ſhed their ſeed upon the flowers or leaves of trees, they carry it to their Hives, by diligent and ſoft ſitting upon it, it comes to perfection. *Pliny* will have it gathered from the Flower of the Honey-ſuckle, or Honey-wort. *Ariſtotle* from the flower Calander, ſo called; *Athenæus* of the Reed-flower, ſome of the flower or berry of the Olive; taking that for an argument, that in thoſe years wherein theſe flowers are moſt plenty, there are great ſtore of ſwarms of Bees; but when there is ſcarcity, then few or none are to be ſeen: when as yet they do not conſider or obſerve that even in very cold countreys where none of theſe flowers grow, nor are ſo much as ſeen, there are plenty of Bees. I am of opinion that they are propagated by copulation, and am confident the male Bee is the greater, the female the leſſe, who whether as Cocks do tread their Hens, ſo they accordingly engender, let experience teach: yet certain it is, that the leſſer Bees only, to wit, the females do ſit upon the egge, and the ſhells being broken (after the manner of Hens) they do by an admirable and natural midwifery put forth their young.

Ariſtotle on the contrary affirms, that the Kings or Maſter-Bees themſelves do firſt bring forth, and afterwards all the reſt, as thoſe alſo do the Drones, but the Drones beget nothing, and ſo their generation ceaſeth. And this it may be, not without ſome reaſon, in regard that the Kings or Maſter-Bees alwaies remain within, as if they were ordained by nature only for procreation, neither ever appear abroad but when together with the whole Swarm they go to ſome other place to dwell. For the ſame reaſon alſo they are ſo extremely beloved of all the Bees, and live exempted from all neceſſary buſineſſe and labour. Theſe do alſo excell the other Bees both in bulk of body and ſtrength, as if their bodies were by nature made only for breeders, But the greater Drones keep a mean between both, and hold ſuch a loving correſpondence with the labouring Bee, as that they may nouriſh both the Drones their Nephews, and the Kings their Parents. But as for that which the Philoſopher addes, that Bees do not engender by way of copulation, becauſe their young is ſo ſmall; the ſame argument may be held of the Flies, of which ſome are bigger than Bees, who lay leſſe worms, the which growing by little and little become like Bees without wings, and afterwards become Flyes.

Others there are who think that Bees do ſpring from the Honey, or with the Honey, or at leaſt of the moſt pure and excellent part of it: and that without all putrefaction. But yet ſomething whatſoever it be, ſerving to engender, and out of which Bees are engendred, without doubt is layed in the cells.

Scaliger thinks they lay Eggs, although the Bee-maſters, with one conſent, ſay that they lay little Worms, not Eggs.

Taxites is of opinion, that they do couple, and determines the Bees to be the males, the Kings the females; and that the Kings at a certain time do put forth little Worms all about the Hives, as the Flyes do, and the Drones ſit upon them as the Serpent uſeth to do, and by ſitting upon them for ſuch a time doth cheriſh them. Then afterwards theſe little Worms called in Greek *χαδῶνες*, are fed with the pureſt, as it were with a mixture of wine and honey together, till at length they grow to be Nymphs, *i. e.* little Bees, but without wings; and then being wrapped up like to *Aurelia*, they lye ſtill in the cells, neither taking any food or making any excrement. Till at length by ſuch a day the ſhell wherein they lay being broken, out come the Bees; and addreſſe themſelves to their ſeveral imployments, their wings being not yet fully grown. All this time the Bees are much delighted with urine, eſpecially of men, and therefore do frequent thoſe places which are wet with it, but eſpecially after rain.

Conſervation. To the Conſervation or keeping of Bees, many things are required, to wit, orderly diet, drink, ſleep, watching, air, exercitation, habitation, convenience of place, as alſo moderation of minde, and phyſick fit to cure their Diſeaſes; of which we ſhall ſpeak in particular. As touching their proviſion, they ſeek for nothing, but they themſelves being mindeful of the approaching winter, they take pains for in ſummer, and what they get ſtore up accordingly. For they gather and cook or dreſſe their diet themſelves, the prime or chief whereof is Honey, which being over nearly drawn from them, they become gaunt, and lank, and tranſparent, that you may ſee through their bodies, and unleſſe there be other means made to ſuſtain their hunger, they all dye for want of food. They have alſo other meat to preſerve themſelves withall, as Wan-wort, Honey-wort, Bees-meat called *Sandaracha*; but this is the worſt, and taſtes ſweet like a fig: when theſe fail, the Bee-maſters lay before their doors, figs, ſugar, dried raiſins, the drones bruiſed, the heads of gentles, wool wet in ſod or ſweet wine, and alſo honey-water, leſt they ſhould faint and dye for hunger.

Pliny would have raw fleſh, if it be ſweet and freſh, to be laid for them to feed upon. Generally all ſweet things and of pleaſant ſmell they covet, though at a great diſtance, not ſo much for the ſmells ſake, but as being their natural food, as Flies feed upon wine. No odoriſerous and fragrant flowers do they refuſe; from whence they are in the Latine called *Florilegæ*, in the Greek, *ἀνθοδίαιτοι, ἀνθαδῶνες*, from the delight they take in them, and their greedineſſe in gathering them.

The Plants moſt acceptable to Bees, are the white and red Thyme, Melicot, the Myrtle, the Willow, the Broom, Lavander, Beans, wilde Thyme, Violets, Kexes, Roſemary, ſweet Fleabane, Almonds, Heath, the Tamariſk, the Cytiſus, Caſia, Daffodil, Aſphodil, but chiefly Balm: concerning which *Macer* ſang theſe macilent verſes:

That herb the Greeks call Balm, the Bees approve,
And above other plants do highly love;
No flower or plant doth pleaſe them half ſo much.

Alſo the Jvy, black Hellebore, Origanum, Savoury, wilde Violets, ſweet Marjoram, the Hyacynth, the Palm-tree, the wilde Olive-tree, the Flower-de-luce, Saffron, Roſe, Lilly, the Juniper-tree, Pear-tree, Peach-tree, Turpentine, Maſtick, Cedar, Tiel-tree, the ſmaller Oak, goldylocks, wilde Saffron, Cumila, flowers of Muſtard, French Spondilium, Crowfoot, purging Thorn, all trees that bear Maſt, Apple-trees which have no bitterneſſe in their bloſſoms: moreover they feed greedily on the flowers of dead Nettles both white and yellow, whereupon this herb by the Helvetians is called (*Bienſauge*) as if you would ſay, ſucked by Bees.

Drink. As for their drink, if there be but a river or running water hard by in which there are ſtones, or pieces of wood caſt (upon which they may light conveniently, and bath or waſh themſelves) they go no farther to drink, if there be none, they fetch their draught other where and quench their thirſt, and when they have done, they carry of the ſame liquor to their King or Maſter-Bee, and to thoſe that are at work within (as hath been ſaid before).

Whatſoever they eat or drink, muſt be undefiled, pure, ſweet, and without any ſtench or putrefaction whatſoever.

Yea, ſo cleanly do they live, that if a menſtruous woman come near them; they are reported to forſake their food and feed no longer, as alſo thoſe that uſe ſweet oyls or perfumes about their bodies, and thoſe that are given to overmuch lechery they hate above meaſure, and can by no means endure: alſo all things that ſmell of oyl or ſmoke, and dung and durt, they are very ſhie of coming near, nor will they touch any thing that ſavours of any ſuch matter. All hurtful herbs, all that have any bitter, purgative, unpleaſant or poyſonous quality in them; they ſo bear Wormwood, Rhubarb, Senna, Savin, Tithymals, Hellebore, Wood-laurel, Coccus gnidius,

dius, Thapſia, wilde Cucumers, Yew, Rhododendros, Wolfs-bane, they will not once taſte of.

When they have laboured hard all the day, and come home weary, a certain ſignal or token being given, (as is above mentioned) they take their reſt. The which oftentimes is many waies diſturbed and hindred, and by this means the Swarm being aſtoniſhed and over wak'd do die: ſometimes the Gad-bee or Horſe-fly moleſts them, ſometimes the Bear making a noiſe wakes them, ſometimes the approach of the enemy affrighteth them, *viz.* the Lizzard, Spider, or the land Toad; in which regard the Cornet preſently ſounds an alarm, and calls them all forth to arms in the night. If it happen to thunder or lighten by night, they are all preſently in an uproar or tumult as if there ſhould be a mutiny in the Army, or ſome fatal battel to be fought. And the reaſon of it is in regard of the unwontedneſſe of the light at ſuch a time, as alſo becauſe they are afraid, and that not without cauſe, leſt their Hives being ſhaken, the combs ſhould be diſordered and diſplaced, or their little waxen veſſels being melted, the Honey ſhould run out. That this is true by experience, no man can better ſpeak then Dr. *Penny* and my ſelf, who in the moneth of *Auguſt* 1586. whileſt we ſate up and watched by the Counteſſe of *Somerſet* then a widow lying dangerouſly ſick, together with her two noble Daughters *Mary* and *Elizabeth*, on a ſudden (after a great clap of Thunder) under the next ceiling between the joyſts, we heard a great noiſe, as it had been an alarm of war, and as we thought the floor did rebound with the noiſe; being altogether ignorant of that (which indeed was the matter) that Bees did harbour between the rafters and the ceiling; where it ſeems they had remained for 30 years together, and every year to have yeelded two or three Swarms, as we underſtood afterwards by thoſe which were eye witneſſes of the ſame, and they of the chief Nobility, who affirmed it to be for certain. The next day for want of ſleep they flew about making a hoarſe noiſe, trembling, and not knowing what they did; they did touch thoſe things which naturally they could not endure, they did daſh themſelves poor creatures againſt the windows, they did not ſpare to ſting their friends and thoſe that looked to them, even to the admiration of all that ſtood by and obſerved them. From whence we conclude without all doubt; that Bees are moſt patient of labour in the day time, but moſt impatient of being ſcared in the night, and of being diſturbed of their reſt.

From whence they ſeem to have gained the name or Epithet of *Soliſequa*, or Sun-followers, for with it they riſe, and with it they reſt. None of them take ſo much as a wink of ſleep all the day long, and all of them in the night ſleep very ſoundly.

Exerciſe of Bees.

Now their exerciſe is of two ſorts, either they fly abroad for their pleaſure, or tarry at home and work for neceſſity. If that be denied them (the Crocodile, Swallow, Lizzard, Spider, or other ſtrange Bees intercepting them) either by reaſon of intemperate weather, or long rain they become purſie, unwieldy and nummed in their limbs, grow into diſeaſes, and ſhortly after die, eſpecially in the ſummer ſeaſon, which is the only time they have to exerciſe themſelves abroad in the open air. When they have refreſhed themſelves with flying about, then they bath and waſh themſelves clean, and afterwards they lightly rub themſelves ſmooth with leaves. Moreover alſo ſometimes they carry little ſtones, ſometimes they carry water, and as little things as they are, will break through the wind though it ſit againſt them; and they will in a bravado, yea they will venture their very lives alſo to fight with the greateſt of beaſts; Horſes, Elephants, Dogs, yea and Men too (*Archilochus* was of this opinion) if they offend them and quarrel with them they wound, and with their ſtings often and fiercely thruſt into their bodies, they kill them. Sometimes they appoint duels one with another, not in earneſt, but in jeſt, for exerciſe and recreation, not with any intent to hurt one another. They will play together oftentimes, and tickle one another, and like Doves bill and kiſſe each other, after which without doubt they couple together alſo, but at what time after, in what place, after what manner, let that all-eyed *Argus* tell, who alone ſits by the Elephants and knowes when they engender, which no man ever yet ſaw but God.

Now as they perform the aforeſaid exerciſes of flying, of fencing, of carrying of ſtones, *&c.* for their recreation, ſo neceſſity the miſtreſſe of Arts hath inured them to domeſtick labour, to which they diligently, not lazily apply themſelves, no day (if the weather let not) is ſpent idly; but how long they work, that wholly depends upon the conſtitution of the Climate, or the air. For in cold Countreys from the ſetting of the Pleiades or ſeven-ſtars, to the Vernal or ſpring Æquinoctial (or thereabout) they keep cloſe within their Hives; but like Dormice without food, ſleeping, and ſo they continue rouled up together like a ball, in a heap; nor do they ſtir a jot from the place where they are: for elſe how ſhould ſuch little creatures as they, be able to endure froſt and ſnow, and the bleak guſts of the north wind? But if the temper of the year be more warm, and ſo continue for a great while together, 'tis longer ere they leave their work, and that *Æthiopia* proves by manifeſt experience, where through continual heat, and almoſt no cold that is there, the Bees work almoſt all the year long.

But in *Europe* they ſeldom go abroad before the beans begin to bloom or bloſſom, (as *Pliny* witneſſeth) which they taſte of the firſt of all flowers or herbs whatſoever. *Servius* dreams that when winter drawes on, they ſtop their mouths with juice and flowers, and with theſe keeping in their Hive to ſuſtain themſolves. But in ſummer they never loyter at all, but exerciſe themſelves in conſtant employment; and when they have gotten ſuch a numerous off-ſpring that one houſe will not hold them, in the moneth of *May* they make a ſolemn expedition, and divide themſelves into ſeveral Swarms hanging upon the boughs of trees like bunches of Grapes. The elder Bees afterwards making two or three rounds or circles in the air go to their food and return to their Hives: the young ſwarm or colony thus ſent forth and left, unleſſe they be entertained with freſh Hives, wander up and down the woods, untill the publick overſeers and hoſpitary Bees have found a fit place for the Swarm to ſettle in.

Now having ſpoken of their exerciſe, in the next place let us enter upon the deſcription of the places or houſes where they are to reſide, which the Greeks call κυψέλας, σίμβλους, *&c.* The Latines, *Alvus*, *Alveus*, *Alvearium*, *&c.*

Now about theſe for the conſervation of the Bees, three things are requiſite or needfull. The faſhion or form, preparation, poſition, and the fitneſſe of the place where they are to be ſet. The beſt receptacles for them, are made with barks, but eſpecially with cork, which in the heat of Summer doth not ſcorch them, and in the Winter is very good to keep out the cold. The Ancients were wont to make them of an hollow tree, or of boards artificially joyned together, alſo they were uſed to be very handſomely made of Reeds, or of the Holm-tree wreathed or twiſted together. Thoſe of earth are counted the worſt of all, as alſo thoſe that are made of Brick, or Clay, becauſe in Summer they are over hot, and in Winter as extreme cold. And yet (as I hear) in *Hungary* they have certain thick pots or veſſels to hang up from the ground, and theſe they hang up in Trees, for the Bees to make their Combs in; which when they have done, they at a certain time take away again. Some make them of Mud or dirt, but theſe likewiſe have their inconveniences and diſcommodities.

The Engliſh uſe to encloſe them in Hives artificially wrought and built of ſtraw; that in Winter they ſhould not be ſtarved, nor in the Summer ſweltered with heat. The Ancients were wont to make them of a kinde of tranſparent Stone, of Horn, and Glaſſe, to the intent that they might look in upon them and ſee how they wrought. But the Bees lay a firſt, ſecond, and third covering over their work withinſide (as I ſaid before) whence they perceived they loſt their coſt and labour in that contrivance, as being never the near by that way to gain their purpoſe.

Let the form of the Hives be after the manner of an Egge, *the yolk and the white being clean taken out*, as when we eat it, a little of the end being pared off.

Moreover the Hives ought to conſiſt of twelve rounds or wreaths of ſtraw woven together after this manner.

The 3 firſt lowermoſt muſt be of one ſize or bigneſſe, a foot and a half in breadth: The 4 next above them are to be a little bigger and more capacious, that the combs may be the better faſtened, and may hang more ſteady: The other 5 circles or rounds are to be narrowed and made ſteep up to the top by degrees, in the likeneſſe of a ſpire or pyramide; but the whole Hive ought to be of that content and bigneſſe that it may contain in it in all about 20 *l.* weight. Let the mouthes or paſſages into the Hives (by which the Bees are to go out and in) be about three or four; and no bigger than that the Bees when laden with Honey may well go in; for by this means, the Lizzard, or Beetle, venemous Spider, Moths, uſing to rob their Hives, are barred of their entrance; and the Hive will not be ſo obnoxious to froſt, and the extremities of the winter ſeaſon. Above theſe they uſe to make 4 doors, alſo windowes to ſhut down with bolts, 2 before, and 2 behinde, that they may the better take out the Combs, with leſſe diſturbance to the Bees in their making Honey.

The preparation or ſeaſoning of the Hive after it is made, is reported to be divers. The Engliſh do take in new Swarms into new Hives, without perfuming or anointing them at all. The Ancients after they had made them very clean, did uſe to rub them all over within with Balm, Thyme, Fennel; and did ſprinkle them with ſome ſweet thing made of honey ſugred, or with ſweet wine or metheglin, that ſo they might the more willingly come into them, and the longer remain in them. *Palladius* was wont to anoint the inſides of the Hive with the dung of the firſt calf that the Cow hath; and this he accounted for a chief ſecret to retain Bees in the Hive. Moreover it is requiſite that about the midſt of the Hive there ſhould three or four ſticks be laid a croſſe to hold up the Combs; and then they are not ſubject with any light ſhaking of them to fall down; and are more eaſily if need be, taken away. Take heed alſo there be no chinks or cliſts in them, whereby they may be annoyed with heat, cold, duſt, vermine, the Cankerworm.

Placing of the Bees.

As for the Placing or ſetting of Bees, it is convenient that the Hives ſhould be mounted on forms, or ſtools, that they be not dirty or mouldy with ſtanding on the ground, and that they may live more ſecure from noxious and hurtful beaſts. Let their ſtandings be made of ſtones, chaulk, elm, or oak; three foot high, covered over with flat tile, or pargeting, or whitelime, and that very ſmooth and ſleek, that thoſe Honey and Bee-devouring creatures may not be able to climb up. Let them alſo be ſet ſhelving or caſting forwards, leſt the rain-water ſetling upon them ſhould ſoak and wooze into their Hives: for which cauſe (as *Columella* witneſſeth) they were wont to be placed in hollowed walls or porches of Cities. Let there be two handfuls diſtance between every Hive, that one ſhogging or ſhaking, the next may ſtand unmoved, as it is uſual when they are ſet cloſe together.

Now as for their Ranks or rowes how many they ſhould be; they are not to be above three at the moſt; of which, let the younger Bees have the firſt, the ſecond ſort or middle aged, the middlemoſt, and the elder Bees, the higheſt or uppermoſt place. But yet both the Hives and the forms whereon they are ſet muſt be conveniently placed for the benefit and advantage of the Swarm; in hot Countreys, towards the North; in cold, towards the South; yea in *Æthiopia* by reaſon of the exceſſive heat, and ſcorching of the Sun, they keep them in their houſes, a ſufficient gap being made in the wall for them to go in and out at; leſt their combs ſhould be melted. Let the place where they are, be open, not over hot in Summer, nor very cold in Winter, quiet from wind, not woody, not incloſed with an over high wall or pale, not againſt a place where any eccho is given, planted with natural and ordinary food, remote from the company of men or cattel which may crop or ſhake off the dew from the flowers; near no jakes, privy-houſes, dung-hils, common-ſhores, ſtanding ponds, bogs, gallows or place of execution, Church-yards, or where bodies uſe to be buried; and ſo ordered that it may be in the bottome of a hill or in a valley, to the intent the Bees being laden may with greater eaſe fly down to their Hives. To conclude, if there be a wind above other that doth infeſt any countrey, in that, let the Hives be placed where they may ſuffer the leaſt harm, and in no wiſe let them have any doors open againſt it. But this diet is neceſſary for the tame Bees for to maintain their lives; now as for the wilde and wood Bees, they live after another manner, they chuſe their places of reſidence themſelves, and furniſh them accordingly. In the Countrey of the *Abiſſines* under *Preſter John*, the Bees live in the Tradeſmens houſes, and flying up and down amongſt them without fear, hang up their Combs, their hives being made faſt to the beams or joyces of the ſame, without any harm at all to thoſe that work in the place. Moreover in many places in *England* they have been known to have taken up their harbour of their own accord, and that for a long time together between the rafters and the ceiling of houſes, and in the hollow trunks of trees, and from thence the old Bees have ſent forth three or four ſwarms of young ones in one year. And (what is worthy to be noted) they live here longer and more happily, then in their artificial woven Hives, with ſo great diligence perfumed, ſo curiouſly ſet, ordered, digeſted and placed. But yet I commend their induſtry who have freed the Bees from this trouble, and have no leſſe ingeniouſly built them houſes to keep them from wind and weather. But they above all the reſt deſerve commendation who have found out how to cure the diſeaſes of their bodies and mindes, inward and outward, and have had the skill how to apply them accordingly. The paſſions or diſtempers of their mindes with which they are moſt troubled, are Anger, Grief, and Fear. For they very hardly digeſt injuries, and they betray a great deal of choler and ſpleen to be in them, by their often fighting, even amongſt themſelves. For if they over abound with iſſue, they are all in an uproar about their cells and lodgings, nor can the quarrel be compoſed, till many are ſlain on either party; or being divided into faction, they do of their own accord ſeek other places of habitation. More then this, even the ſouldiers of the ſame Colony, when they (for ſome private grudge or jealouſie fall into a rage) they make war, and fall foul one upon the other: the which the wary Bee-maſter eſpying, and caſting in duſt or cold water by ſquirts in at the vent holes, where they go in and out, or making a terrible and hoarſe noiſe with the palms of his hands, doth before it be too late pacifie. For if he ſhould let them fight on, they would be ſo mad and cruel one againſt the other, that they would never be quiet till they were all killed.

Sadneſſe and Melancholy alſo doth very much diſtemper and diſturb them, ariſing ſometimes from the death of the King or Maſter Bee, ſometimes of their young ones, ſometimes of their keeper; neither will a day ceaſe their conceived ſorrow, but they take it to heart, that their bodies pine away, and it conſumes them to skin and bone. Neither will the tinging or tinkling of the braſſe pan, or any harmony whatſoever delight them (which yet when they are mad, and dote ſo that they know not what they do, is wont to cure them) there is no plague or diſeaſe that can be named, that is more deadly to them than this.

Fear.

They moſt ſtand in fear of the Spider, Lizzard, Crocodile, Toad, Glow-worm, Gad-bee, Waſp, Hornet, the multitude of Dors or Drones, a little bird called a Houp, the Titmouſe, Swallow, the Woodpecker or Eat-bee, the Owle, and other the like deſtroyers and ſpoilers of the Hives. They are likewiſe very fearful of an Eccho, thunder and lightning, and the like ſudden crackling noiſe; as on the contrary with a ſoft ſtill whiſtling, or murmuring noiſe, and tinkling of braſſe they are exceedingly taken and delighted. When fear takes hold on them, poor creatures, they wander up and down they know not whither, and when they go out or in to their Hives, they ſeem to be giddy, as if they had a Vertigo in their brains whirling and turning round; as for their Honey, or their young ones, or for thoſe that are ſick, they ſcarce regard them; and never leave trembling and quaking in their wings and ſhanks. The Bee-maſter therefore (when their proviſion fails) ought to deſtroy the Drones, and (by putting raw fleſh into a pot) to take the Hornets, and then burn them. To kill the Frogs, Butterflyes, Wood-worms, and Canker-worms, to wipe away their webs, to entrap the Gnats and Flyes, to ſtab through the Lizzard, Crocodile, black fly or Beetle, and by putting in a Candle (to which they will come of their own accord) to burn the Glow-worms or Moths; to chaſe the Frogs and hunt them from the ſtanding waters and fenny places, to throw down all the neſts of Swallowes, Modwals, Owls, or Wood-peckers (eſpecially in all the neighbourhood or places hard by them) to deſtroy the Muskin or Titmouſe; and to defend them againſt all other beaſts that lie in wait for them, and all other ſtrange Swarmes. In which fight the Bees do as it were acknowledge their keeper, who after the victory iſſuing forth, ſet upon the vanquiſh'd troops, but to their defender or, champion offer not the leaſt harm.

The Bees by theſe means thus quitted of their fears, only with the tinkling of the Pan, and ſometimes with the Bee-maſters voice only, are ſtrengthened and brought to themſelves again, and every one cheerfully returns to his ſeveral appointed imployment as before. Some Bees alſo are caught wandring up and down, and flying away from their Hives, for they take pleaſure in wandring delights and embracements, and never care at all for coming home to their own habitations: this ill habit and haunt, the Bee-maſters with clapping of their hands, and with the ſound of the braſſe (in which Bees are ſaid extremely to delight) do preſently remedy; although it is yet uncertain whether they do hear the ſound, and are led by the pleaſure of it; or whether or no rather being affrighted and terrified with the trembling and reverberation of the air (as when it thunders) they return to their Hives; and I ſee no reaſon why *Pliny* and *Niphus* ſhould here make a doubt. Others leſt the ſwarm ſhould fly away and ſo be gone, do crop off half the wings of the King or Maſter-Bee. As alſo others do beſmear or dawb the vent holes out of which they come, with the dung of a calf newly calved. Moreover if you ſtrew their paſſages with the leaves of the Olive-tree boyled, they will not depart: alſo Wine ſod with water is very good, but above all, the juyce of the herb Balm, wherewith (as it were with a kinde of philtre or love-potion) they are moſt powerfully retained, as the Poet *Macer* ſings.

Smear but their Hives with Balm and they'l abide,
And much the rather if that milk beſide,
Be us'd to keep them, that they wander not.

Pliny ſaith, if ſome of the duſt over which the ſerpent hath gone, be caſt upon the Bees, they will return to their Hives. Others yet adviſe to ſow Goldilocks near where they are, as if they delighted moſt in that flower above all others, and would never forſake thoſe places where theſe flowers abound. And Authors report that the wilde Bee is allured and tamed therewith.

Diſeaſes of Bees and the cures.

The bodies of Bees likewiſe are ſubject to divers diſeaſes, *viz.* repletion, inanition, drowth, moiſtneſſe, cold, and unnatural heat. Repletion, or abounding of humours is cauſed when the Bee-maſter neglects to gather the Honey in good time; for then they do ſo fill and gorge themſelves, till being grown over with ſcab and ſcurf, and ſwoln in their throats, they become ſickly; there follows upon theſe ſluggiſhneſſe, feavers, longings, loathing of their food, watching or wakefulneſſe; with which the miſerable poor outworn Bees, unleſſe they have ſome timely remedy, do die; wherefore of neceſſity they muſt have their Honey gathered from them. In doing of which two things are to be obſerved, *viz.* the time when, and the quantity how much, the which according to the quality and cuſtom of Countreys, are divers. For in *England* they gather the Honey every year, *viz,* either in the latter end of *July* or in the beginning of *August.* In hotter Countreys they obſerve three times in the year to gather in this Honey harveſt, *viz.* at the riſing of the Pleiades, when their are at they Zenith or Vertical point, and preſently after their ſetting. *Didymus* in his Geoponicks, writes that this time of the *Pleiades* is the beſt. The *Romans* did uſe to unbowel their Hives, the firſt time in the moneth of *May,* and then again when Summer was almoſt done, and thirdly about the Ides of *October.* From whence it was called Spring Honey, Summer Honey, Autumnal Honey, or Honey gathered in Autumn. *Ariſtotle* adviſeth the firſt taking Honey, to be when the wilde Fig-tree begins to be green; the ſecond he commends to be done about Autumn. Generally it is very neceſſary that the Honey ſhould be taken when the Hives do over abound with Honey; the which is certainly underſtood by the ſhrill or ſqueaking noiſe that the Bees make. For if they be empty, they give out a more clear and loud ſound, as being more full of air then meat: but moſt certainly it is known by looking in at thoſe doors placed on both ſides of the Hive, being open (ſaith *Columella*) of which we have made mention before in the building or ſtructure of the Hives.

The manner of taking them is thus; Betimes in the morning while they are half aſleep and drowſie, is the time when the work is to be affected, and their Combs taken away; it being not convenient to exaſperate them in the heat of the day. *Columella* preſcribes for this uſe two Iron inſtruments of a foot and an half long and ſomewhat longer; the one muſt be a long knife with a broad edge on both ſides, but dull, with a crooked head and ſharp teeth to take out the Combs withall, the other plain with two ſharp edges, to cut down the Combs. With theſe the veſſel being opened, the buſineſſe will very well be effected. In *England* as alſo in other Countreys, *viz.* in *Helvetia, Germany,* and the Low Countreys; they do not ſet upon them with theſe Iron inſtruments, but with fire, and ſmoak, and water, with which they chaſe the elder Bees from Hive to Hive and keep the Swarm entire at their pleaſure.

Moreover in taking away the Combs, there ought a mean to be obſerved, according to the greatneſſe of the Swarm and number of Bees. For with overmuch plenty of Honey they grow idle, and both defraud their Maſters and themſelves; for when the abound with Honey, they feed not on Bee-bread, but glut themſelves with the very pureſt of the Honey: on the other ſide if there be not enough Honey left them to feed on, languiſhing for want of ſuſtenance they grow heartleſſe, and live careleſly; and becoming ſo thin that you may ſee through them, being ſtarved and feeble, they miſerably periſh.

Moreover, the old and rotten Combs ought to be taken away (but not thoſe wherein poſterity is concerned) and thoſe which are whole, and which contain the young ſpawn or fry of the Bees, unleſſe you ſee that there is not ſo much Honey left as may ſerve for the ſuſtentation of the Parents or elder Bees. Keep ſuch a proportion, that in the abundance of Honey you take two parts and leave a third; if there be but indifferent ſtore, take the half, if the Combs be in a manner empty, take nothing at all out of them. But this proportion is not be obſerved in all places, becauſe in regard of multitude of flowers, ſtore of paſture, and goodneſſe of it, together with the condition of the Countrey, you may take away more or leſſe as you ſhall ſee cauſe. For in *Æthiopia, Syria,* and *Paleſtine,* they commonly take all the Honey out of Hives: which by reaſon of the fatneſſe of the paſture, and continual dews, are filled again in very few daies.

But if there chance to be famine and ſcarcity, you muſt not only drein the Hives, but take away part of the Bees alſo; and choke the greater part of them, with the ſmoke of Tow, Reed, Turpentine, or Brimſtone, or Galbanum, or elſe drown them in water; by which means the honey will become ſweeter and purer.

Famine is cauſed eſpecially two manner of waies; either by ſcarcity of proviſion, or the badneſſe of it by reaſon of corruption: when there is great want you ſhould ſupply them with Honey, ſprinkle them with a liquor made of wine and honey boyled together, give grapes or figs bruiſed or pounded together, and ſugar-ſops. *Pliny* would have Hens fleſh given to them, although he ſaith that Bees will not touch any fleſh whatſoever. Now the corruption and unſoundneſſe of this meat, doth procure firſt of all, longings, ſcowrings, barrenneſſe, and conſumptions; from whence and by the ſtench of dung and dead corpſes, ill ſavours, plague and putrefaction, with other dyſaſters do ariſe. In their longing deſire of what they fancy, they grow ſo nice and peeviſh, that diſliking all things, they are ready to fly away, unleſſe with the perfume or vapour of things of a very pleaſant and grateful odour, with exquiſite playing upon the braſſe pan, and exceeding neat handling of them, they be retained. Alſo they are taken with a lask or looſneſſe in their bellies, both in regard of the naughtineſſe of the juice it ſelf, as alſo in regard they feed on thoſe herbs and leaves that are purgative, as Hellebore, Spurge, both kinds of Elder. For being greeedy of food after their faſting all the Winter, aſſoon as the Spring comes, taſting more greedily, than in way to their health, every herb that they light on, without putting any difference, having gathered unwholſome honey, they are taken with a cacochymia or ill humour or habit of body, and afterwards very ſuddenly fall into that lask or looſneſſe, afore ſpoken of.

Againſt this diſeaſe (ſaith *Pliny*) ſet them ſervices with honey, or wet with man or oxe piſſe. Alſo Pomegranat kernels moyſtened with wine of wilde Briony; *Palladius* much commends the kernels of Pomegranates or Raiſins boyled and pilled, with Manna or ſharp wine ſet before them in wooden gutters; alſo he bids ſquirt in Honey boyled in water, with the powder of Galls, dried Roſes, or Roſemary, or ſet it in with little ſawcers.

Moreover, care is to be had, that they do not bring home any food gathered in the woods, where for the moſt part do grow harſh and ſowre herbs, with the acrimony thereof the bellies of the Bees are moved, and are ſcarce ſtayed but by the experience and accurate endevour of their keeper. From thence proceeds barrenneſſe, becauſe by that means for want of ſeed they do not generate, or at leaſt (by reaſon of feebleneſſe) they are not able to hatch their young, or conſtantly to ſit upon them, or to avoid the ſnares of the Spiders which are drawn over the mouthes of their cells. This conſumption and hectick feaver increaſing yet more and more, *Higinus* bids that flowers be brought, ſoaked in dew or a ſweet liquor made of wine and honey, and ſo layed unto the holes or vents of the Hive. Alſo he commends for that purpoſe Violets and Bugloſſe flowers beſprinkled with new wine boyled half away, after that their Hives being very well cleanſed, and the vermine and dead Bees rid out of them, they are to be perfumed with oxe or calves dung; becauſe that takes away putrefaction and infection, and doth inſtill a new life or ſoul (if *Columella* ſay true) into the almoſt expiring Bees. They are alſo full of lice (as *Florentius* relates) the which he cures with the ſhavings of the Pomegranate and wilde Fig-tree burnt to aſhes. The ſame Authors cure the dulneſſe or purblindneſſe of their eyes with the powder of wilde Marjoram. They themſelves are able to take away their ſcurf and dandriff, with a gentle rubbing of their bodies againſt the herb Celandine, and againſt walls ſtained with urine; their drineſſe they cure with baths, and their throat with drinking mineral waters.

The diſeaſes that come of moiſture, are ſwellings in the neck, tumors in the head, dropſies, which the Ancients uſed to cure with dry herbs, and ſhaking off the dew from them betimes in the morning, and our countrey people do ſomewhat abate it, by keeping them from common water, for they keep them three daies together in their Hives, by which it comes to paſſe that not only the ſuperfluity of the bad humour is dried up, but the natural moiſture is in ſome meaſure regained. *Heſychius* writes of a diſeaſe very common to Bees, which he calls *Κάπρον*, but what it is he doth not tell us, neither could I learn from any other Author, what, or what manner of diſeaſe it ſhould be.

The diſeaſes proceeding of cold are congelation, nummedneſſe, ſtifneſſe, and other of that ſort, for you ſhall ſee them ſometime ſo nummed and ſtiffe with cold, that you would not think they had the leaſt motion, much leſſe breath. On the other ſide, through extremity of heat, they are driven into madneſſe, exceſſe of thirſt, Feavers, Vertigo, and ſwimming in their heads, yea they grow ſtark mad, at which time they know no man, no not their keepers, and will ſtrike their friends with ſomewhat venomed ſtings. In ſuch ſort therefore ought their Hives to be placed in both ſeaſons of the year, that in the winter they be not too much oppreſſed with cold; and in the ſummer, that the ſhade of the trees do not keep the heat from them. Bees do fail alſo ſometimes for want of iſſue, as in the plenty of paſture it happens to come to paſſe, at which time they are ſo intent upon their work in making of Honey, that the care of copulation and propagation is quite laid aſide; and ſo the ſeparation of iſſue being omitted, the whole Swarm being ſpent with labour, is extinguiſhed. But when they fly away in ſtomack and anger, by reaſon of their Hives being not kept ſweet, or for ſome peſtilent diſeaſe that reigns amongſt them; you muſt follow after them, and with that Art (*Palladius* hath taught) being found again, entertain them in clean Hives, and remove them from the place where they were before into freſh dwellings. Moreover, *Pliny* ſaith it doth very much conduce to the keeping of Bees, that they be lawfully and honeſtly come by, that is, that they are either given or bought, for if they be ſtoln they ſeldome thrive, and come to good; as it is with Rue or Herb of Grace, if ſtoln it very hardly growes.

Now if when we ſhall have removed from Bees all creatures that annoy them, what we ſhall yet further adde to the conſervation of their health, and the cure of their diſeaſes, I do not ſee. Firſt, therefore remove from them all filthy Lechers, menſtruous perſons, thoſe that have the running of the reins, baths, ſmoke, dunghils, layſtals, all thoſe that ſmell of greaſe or kitchingſtuffe, or having nothing elſe to do, or on purpoſe to offend them, ſtand before their Hives mouth. The air being infected with the breath of Toads or Serpents, purge with Balm, Gentle, Thyme, or Fennel burned. See that they live neatly and daintily; kill all predatory or devouring vermine; and the ſigns or ſymptomes of their diſeaſes being perceived and known, apply the cure of them. Now the ſigns of Bees, as of other creatures alſo, being not well, are gathered from three things, that is to ſay, from their refraining to be in action, from the external garb of their bodies, and from their excrements. For the loſſe of mirth, lumpiſh melancholy, vertiginous or whirling gate or motion, their frequent and lazie ſtanding at the door, their fainting in their work, their diſdain of flowers and honey, their more then ordinary either ſleeping or waking, unwonted hummings, are an argument that the Bees are ill at eaſe. As alſo when their bodies are unhandſome, not trim, rough, not ſleek or ſmooth, ſcurfie or ſcald, not ſhining or gliſſening, lean and tranſparent, not well liking, or well fed. Moreover, if their combs have an ill ſavour, or if their dung or ordure turn to water, or be full of worms, and when they carry out every day their dead, not at all regarding their Hives, theſe are infallible ſigns of ſickneſſe, and ſome epidemical diſeaſe that reigns amongſt them, ſome part of which *Virgil* in 4. Geo. hath elegantly, though ſomewhat confuſedly touched in theſe verſes following.

If Bees be ſick (for all that live muſt dye)
That may be known by ſigns moſt certainly.
Their body is diſcoloured, and their face
Looks wan, which ſhewes that death comes on apace.
They carry forth their dead, and do lament:
Hanging by th' door, or in their hives are pent.
Hunger and cold conſumes them, you ſhall find
They buz as doth 'ith woods the Southern wind,
Or doth the ſea when that the waves return,
Or fire clos'd up in vaults with noiſe doth burn.

And thus their diſtempers being underſtood and cured, they live to extreme age; which *Ariſtotle, Theophraſtus, Pliny, Virgil, Varro, Columella, Cardan,* and all Authors whatſoever, do conclude not to extend it ſelf to nine years. Although I ſaw it by experience, and with no leſſe delight to be otherwiſe at *Hanworth* in the Counteſſe of *Somerſets* Bees (before ſpoken of) (there are yet preſent witneſſes, who are worthy of belief which will atteſt it) that there they have lived in the ſame place above the ſpace of thirty years; and almoſt four times a year, have made out freſh flights or ſwarms of young ones. Which reaſon doth induce me to believe, that Bees in their own natural conſtitution are long lived, and I do with *Albertus* alone make a queſtion, whether they may not live ſo long till they dye of old age. Well I know they may be taken away by diſeaſes or incurſion of their enemies; but if they had alwaies all thoſe neceſſaries for their life and health by them, and thoſe things which ſhould be deſtructory kept from them, I ſhould eaſily grant that they would live to a very exceeding great age, if I did not altogether ſay they were immortal. For they alone, of all other creatures, are fed with Honey that immortal Nectar, dropt down from heaven, and with that divine dew (which is the ſoul and ſpirit of all herbs, trees, and plants) gathered together into one body or maſſe; of whoſe nature, uſe, and excellent vertue, we ſhall ſpeak in the following Chapter.

CHAP.

CHAP. IV.

Of the uſe of Bees.

The Uſe.

WHereas the moſt high God did create all other creatures for our uſe; ſo eſpecially the Bees, not only that as miſtreſſes they might hold forth to us a pattern of Politick and Oeconomick vertues, and inform our underſtanding; but that they might be able as extraordinary foretellers, to foreſhew the ſucceſs and event of things to come; for in the years 90, 98, 113, 208. before the birth of Chriſt, when as mighty huge Swarms of Bees did ſettle in the chief Market-place, and in the Beaſt-market upon private Citizens houſes, and on the Temple of *Mars*, there were at that time ſtratagems of enemies againſt *Rome*, wherewith the whole State was like to be ſurpriſed and deſtroyed. In the reign of *Severus*, the Bees made Combes in his military Enſigns, and eſpecially in the camp of *Niger*. Divers wars upon this enſued between both the parties of *Severus* and *Niger*, and battels of doubtful event, while at length the *Severian* faction prevailed. The Statues alſo of *Antonius Pius* placed here and there all over *Hetruria*, were all covered with ſwarms of Bees; and after that ſetled in the Camp of *Caſſius*; what great commotions after followed *Julius Capitolinus* relates in his Hiſtory. At what time alſo through the treachery of the *Germans* in *Germany*, there was a mighty ſlaughter and overthrow of the *Romans*. *P. Fabius*, and *Q. Elius* being Conſuls in the camp of *Druſus* in the tent of *Hoſtilius Rutilus*, a Swarm of Bees is reported to have ſate ſo thick, that they covered the rope and the ſpear that held up the Tent. *M. Lepidus*, and *Minut. Plancus* being Conſuls, as alſo in the Conſulſhip of *L. Paulus*, and *C. Metellus* Swarms of Bees flying to *Rome* (as the *Augurs* very well conjectured) did foretell the near approach of the enemy. *Pompey* likewiſe making war againſt *Cæſar*, when he had called his allies together, he ſet his Army in order as he went out of *Dyrrachium*, Bees met him and ſate ſo thick upon his Enſigns that they could not be ſeen what they were. *Philiſtus* and *Ælian* relate, that while *Dionyſius* the Tyrant did in vain ſpur his horſe that ſtuck in the mire, and there at length left him, the horſe quitting himſelf by his own ſtrength, did follow after his Maſter the ſame way he went with a Swarm of Bees ſticking on his mane: intimating by that prodigy that tyrannical government which *Dionyſius* affected over the Countrey of the *Galeota*. In the *Helvetian* Hiſtory we read, that in the the year 1385. when *Leopoldus* of *Auſtria*, began to march towards *Sempachum* with his Army, a Swarm of Bees flew to the Town and there ſate upon the tyles; whereby the common people rightly foretold that ſome forain force was marching towards them. So *Virgil* in 7. *Æneid*.

The Bees flew buzzing through the liquid air:
And pitcht upon the top o'th' Lawrel tree;
When the Soothſayers ſaw this ſight full rare;
They did foretell th' approach of th' enemie.

That which *Herodotus*, *Pauſanias*, *Dio Caſſius*, *Plutarch*, *Julius Cæſar*, *Julius Capitolinus*, and other Hiſtorians with greater obſervation then reaſon have confirmed. *Saon Acrephnienſis*, when he could by no means finde the Oracle *Trophonius*; *Pauſanias* in his Boeticks ſaith he was led thither by a Swarm of Bees. Moreover, *Plutarch*, *Pauſanias*, *Ælian*, *Alex. Alexandrinus*, *Theocritus* and *Textor* are Authors that *Jupiter Melitaus*, *Hiero* of *Syracuſe*, *Plato*; *Pindar*, *Apius Comatus*, *Xenophon*, and laſt of all *Ambroſe*, when their nurſes were abſent, had Honey dropt into their mouthes by Bees, and ſo were preſerved. *Xenophon* alſo in his Oeconomicks calls making of Honey, the ſhop of Vertue, and to it would have matrons and mothers of families go to be inſtructed. The Poets willingly yeeld themſelves to be compared with Bees, who following nature as their only Miſtreſs, uſe no Art at all. And ſo *Plato* affirms that Poets were never able by Art to finiſh any maſter-piece. Inſomuch that *Pindar* doth vaunt himſelf in this to be ſuperior, or to go beyond *Bacchilides* and *Simonides*, in that he was taught by nature not by Art. Bees unleſs provoked are harmleſſe, but being vext they will ſting and that moſt ſhrewdly. Such is the condition of Poets: from whence are occaſioned theſe verſes of *Archilochus*,

He that doth move me, quickly finds my ſting,
I'l make him cry, and through the City ring.

Wherefore *Plato* in his Minos gives it as a rule to thoſe that deſire peace and quiet, that they be very well adviſed how they intermeddle with Poets and Bees. To conclude, ſo many are their virtues worthy our imitation; that the *Ægyptians*, *Greeks*, and *Chaldæans* took divers Hieroglyphicks from them; as when they would expreſs ſubjects obedient to their Prince, they ſet it forth in figure of a Bee very ſingular in that virtue; when a King loving to his ſubjects, they portray it likewiſe and ſet it forth by a Swarm of Bees. Other the like emblemes are to be found in *Pierius* Hieroglyphicks worth the labour of ſearching for. From them the Countrey people learned their skill of prognoſtication of the weather. For they perceive wind or rain before it comes, and foretell ſtorms and ſhowres that are at hand; when they are ready to come, they are ſure not to fly far from their Hives, but will feed themſelves with their own moiſture. All thoſe things being as they are, 'tis no wonder that *Ariſtaus*, *Philiſtrius*, *Ariſtomachus*, *Solenſis*, *Menus Samnites*, and ſix hundred others that have wrote of Bees, have left the pleaſures and delights of the City, and for 58 years to have lived in the woods, that they might be the more parfectly acquainted with their conditions and manner of life, and be the better enabled to commend them for an example to poſterity. Neither was *Virgil* e're the worſe for being ſo well ſeen in their Hiſtory, the which he hath moſt elegantly ſet down in the fourth of his Georgicks.

But what their bodies and their labours do work upon our bodies, it is now worth the pains to relate; whereby we may aſſuredly know, that there is nothing in Bees but what doth ſerve for our health and welfare. For,

Their uſe in Medicine.

Firſt of all, their bodies aſſoon as they as they are taken out of the Hive, and pounded and drank with ſome diuretick, or wine and milk; do ſtrongly cure the dropſie, diſſolve the ſtone or gravel, open all the paſſages of the urine, cure the ſtopping of the bladder. Bees that die in the honey, cure impoſtumes, and help the dulneſſe of ſight or hearing. Alſo being pounded together they cure the griping or wringing of the belly or guts, being applied to them. If poyſoned honey be drank, they themſelves being drank down after it, do expell it: they ſoften hard ulcers in the lips; being bound to a carbuncle or running ſore, they heal it; they cure the bloudy flix. Honey being ſtrained with them, helps the crudities of the ſtomach, or ſpecks or red pimples in the face, as you may ſee in *Hollerius*, *Alexander Bened.* and eſpecially in *Pliny*. Take Bees dead in the combs, and when they are through dry make them into powder, as *Galen* in *Euporiſt.* writes, mingle them with the Honey in which they died, and annoint the parts of the head that are bald and thin haired, and you ſhall ſee them grow again. *Pliny* in like manner teaches to burn a great company of Bees together, and mingle the aſhes with oyl, and anoint the part; only with this caution, that the adjacent parts be not touched therewith; yea, Honey ſcraped of Bees that are dead, he affirms to be very ſoveraign in all diſeaſes, and very uſeful. *Erotis* in his 61. chap. *de Morb. mulieb.* tells us that their Aſhes beaten with oyl, is good to make the hair white.

Moreover, Bees are very profitable and uſeful in regard they ſerve for food to other creatures; as to the Bear, Lizzard, Frog, Serpents, Spiders, Waſps, Swallows, Houp, Robin-red-breſt, Titmouſe or Muskin; as *Bellonius* hath obſerved.

Palladius ſaith, that ſome men are wont to take great delight in hunting after them; and he tells you how you ſhall finde them out in theſe words. In the moneth of *April*, in ſunny places, if the Bees do frequently reſort thither, either for food or water, then certain it is, that their neſt or Honey-ſhop is not far off, but if there come thither but a few in a company, then 'tis a ſign that they harbour farther off. But when they come very thick, by this trick you ſhall finde out their Swarms, take a little wet Oaker and mark them on the back, and there remain, while thoſe that were mark'd return back thither again, if they make a ſpeedy return, then they make their abode not far off; but if they tarry more then ordinary, then they reſide farther off. Now by this means thoſe that are hard by may eaſily be found out; but to come at them that are more remote and farther oft, do thus; take a piece of a Cane and cut it off at either end at the joynt, and make a hole in the midſt of it; there put in a little honey, or ſweet wine boyled half away, and lay it by the ſide of the fountain or water where they reſort: when the Bees come thither, and are drawn in by the ſent of the honey, hold your thumb cloſe upon the hole, and ſuffer but one Bee to go out at once, follow that as far as you can well diſcern him, when that is out of ſight let go another, and by this conduct at length you will eaſily finde the place where the Swarm is. If it be in ſome hole or cavern of the earth; make but a ſmoke upon the mouth of it, and all the ſwarm will hurry out, and when they come forth, being a little ſcared, with the tinkling of a braſs pan, they will hang themſelves upon a little bough as it were a bunch of grapes, from whence having a veſſel to put them in, you may take them away. If they chance to make their neſt in the arm of a tree, then take a ſharp ſaw and ſaw off the bough above and below them, and cover the middle part where they are, with a clean cover, then carry them where you pleaſe, and put them in a Hive.

By this Art you may finde their Swarms where they uſe in woods, dens, or hollow places, ſtony or craggy rocks, or any place whatſoever: only ſee that you begin your ſport betime in the morning, leſt the night overtake you, and you loſe your game. Neither only are they delightfull ſport to them that hunt them in the day time; but alſo (if *Fabritius* and *Artemidorus* do not deceive us) if a man light upon them in his dream when he is a ſleep; if he be a poor man, it foretells he ſhall be rich; if a King or a great man, that his ſubjects, or thoſe that are under him will be loving and obedient. But he that dreams he had a ſtock of Bees, but in preſent hath them not, 'tis a ſign of a decaying eſtate, and of ſome imminent approaching diſaſter to befall. Of ſo great uſe are Bees: and ſo variouſly hath dame Nature the contriver of all things, ſpotted her ſelf, or rather taken great pains indeed in furniſhing them with ſuch rare qualities of all ſorts, as wherewith you have heard them to be endowed.

But to what purpoſe is (will you ſay) that ſting, againſt whoſe poyſon and venome *Pliny* himſelf knew no remedy? I confeſs, and experience teacheth as much, that Bees ſtings are ſometimes venomous; but it is only of thoſe Bees which are raving mad, or burning with ſome feaver, anger, or hunger. Otherwiſe they do little or no harm at all: and therefore *Dioſcorides* did not deign ſo much as to mention the ſymptomes of the ſtinging of Bees; ſuppoſing it a childiſh ſimple thing for any man ſo much as to complain of the ſting of a poor little Bee: later writers obſerve that the ſting is accompanied with redneſs and tumor, eſpecially if the ſting do yet ſtick faſt in the fleſh, which if it go in very deep ſometimes proves mortal, as *Nicander* writes in his Theriaca. The Ancients (that we may prove the ſting of Bees to be converted to ſome good uſe) as *Suidas* reports, were wont to puniſh cheaters with them on this manner; They ſtrip the malefactor ſtark naked, and beſmeared his body all over with Honey, which done, and his hands and feet being bound, they expoſed him to the heat of the ſcorching Sun, that what with the piercing raies beating upon his body, what with the ſtinging of the Bees and flies, and their often ſtabbing and wounding him, he did at length ſuffer a death anſwerable to his life. But if you would indeed reſolve to go ſting-free, or at leaſt heal your ſelf being ſtung; expell out of your minde, idleneſs, impiety, theft, malice; for thoſe that are defil'd with thoſe vices, they ſet upon to chuſe as it were, and out of natural inſtinct. Beware alſo in eſpecial manner, you wear not red garments, which might repreſent you to them, to be a murtherer or man of bloud; as alſo that you be not taken by them for an unchaſte or unclean perſon, which it ſeems they naturally know and abominate (as hath been ſaid before) They which carry the bill of a Wood-pecker in their hands when they come near them, although they do ſomewhat diſturb their Swarms, yet (as *Pliny* ſaith) the Bees will not hurt them. *Nonnius* reports, that if you rub and beat to powder the herb called Balm-mint, or Balm-gentle, their ſtings will not be able to hurt you. *Florentius* gives in charge, that he that is to gather the honey ſhould annoint himſelf with the oyl or juice of Marſhmallowes, whereby he may take away the combs without danger. But the juice of any Mallowes whatſoever will do the like; and the better if they be rubbed with oyl; for it doth both preſerve from ſtinging, and is a remedy to thoſe that are ſtung. But be it granted that diſeaſes be contracted by their ſtingings; yet 'tis but taking a few of theſe Bees that are found dead in the Honey, and let them be carefully applied, and they preſently cure them; and take away all the venome and aking of them.

What ſhall I ſay? God never created a creature leſſe chargeable, and more profitable. They are bought for a very little money, they will live in all places whatſoever, even in woody and mountainous Countreys. The poor as well as the rich gain a great return or revenue by keeping of them, and yet need they not put more in the pot, or keep a ſervant the more for them. *Merula* reports that *Varro* rented out his ſtocks of Bees, for 5000 *l.* of Honey; and in *Spain* out of a little Village containing not above an Acre at moſt, that he gained of the Honey there gathered 10000 Seſtercies, *i. e.* 50 *l.* of our Engliſh money in one year. Beſides all this, we have from their ſhops or ſtore-houſes, Wax, Bee-bread, Bee-glew, Roſin, Honey-combs ſuch as no Common wealth can well be without; not to repeat their virtues, which are no leſs wholſome for the minde, then thoſe are profitable for the body and maintenance of life. And firſt of all we will treat of Honey, that immortal, nectareal, pleaſant, wholſome juice, and principal of all works and operations.

Chap. V.

Of the Name, Difference and Uſe of Honey.

At the firſt Honey had but one name, called in the Hebrew *Dabeſch*; but ſince that ſtrange and confuſed Polyglottology, or ſpeaking with divers tongues it was called of the inhabitants of *Arabia, Hel, Han*; of the French, *Miel*; of the Italians, *Mele*; of the Dutch, *Honichzeem*; of the Germans, *Honig*; of the Engliſh, *Honey*: the Greeks called it, μέλι, from the admirable care and induſtry of the Bee in making of it, as *Euſtachius* notes: from whence comes μελίτιον, *Melitellum*, of μέλι, in Porphiry. This for the Name: But what it is yet after all is much controverſed amongſt the learned. Some there are that fondly conceit it to be the ſpittle of the Planets, or the gelly falling from the Stars; others, the purging of the Air, or the ſweat of the Heavens; but in my judgement it may more properly be termed the *Chylus* of the Bees, gathered from ſome ſweet matter, but having its perfection and conſummation from their ventricles; and afterwards by expuition or vomit caſt out into the cells or Honey-combs. *Ariſtotle, Pliny, Avicen, Seneca,* would have the Bees not be makers of the Honey, but only gatherers of it: for thus they write; The Bees, (ſay they) do gather the Honey from the dew of the air, eſpecially at the riſing of certain Stars, and from the conjunction of the Rain-bow; for they make no Honey, but Honey-combs only. *Galen* alſo *lib. 3. de Alim. fac.* hath theſe words: I remember (ſaith he) upon a time, in Summer we gathered a great quantity of Honey from the leaves of the trees, and then the Countrey in way of ſport ſang, *Jupiter* rains Honey. But then the night before had been exceeding cold, as it could be in Summer: by the ſtrength whereof the ſweet exhalations, and vapours being drawn up by the Sun were congealed together. Now with us this is a very rare accident; but in Mount *Libanus* it happens every year: and therefore they ſpread skins upon the ground

The Definition of Honey.

ground under the trees, and ſhake them, and the Aerial Honey that falls from them, they put up in pots, and earthen veſſels. Now Honey, as all other things, do differ in ſubſtance or matter, it is either Aerial or Terreſtrial; Aerial Hony is one thing, Terreſtrial another: For in the moneths of *May, June,* and *July,* a kinde of heavenly Ambroſia falls down upon the leaves of plants (which they call honey dew, but I rather mieldew) very ſweet in taſte, liquid, pure, and as ſweet as ſugar it ſelf; this being gathered and drank in, the Bees I grant do ripen or bring to maturity, but that they make any real mutation, I conſtantly deny; unleſſe perchance you will ſay that the refining the dew, is an alteration of the ſpecies. *Gal. lib.* 3. *de Alim. fac.* affirms that the matter of Honey is not the very dew it ſelf, but ſomething near of kin to it: the which Bees gathering do caſt up again into their cells, but they do not change the ſpecies of the juice; as *Avicen* alſo ſaith. But this aerial dew, of which this aerial Honey is gathered is of two ſorts; coagulated or thickned Manna; and liquid, of which the beſt Honey is made; eſpecially if it retain the ſame vertue it had when it firſt fell: but falling from ſuch a height, and even with the very ſliding of the fall by reaſon of the impurity of the air contracting defilement, and being infected with the exhalation of the leaves, and juice of the flowers upon which it lights, it looſeth much of that heavenly vertue, although ſome remain, and being ſo often ſhifted in the ventricles of the Bees, cells, honey-combs, it hath ſome ſtrange qualities joyned to it. But in the beginning, Honey is like pure rock-water; and in the firſt daies it boyls like new wine, in the 20. day it waxeth thick, a while after it is covered over as it were with a thin film or membrane, which with the froth of the heat of it, congeals together. Terreſtrial or earthy Honey we call that, becauſe the dew going away, it is ſuckt out of the very ſweat of the earth, and the ſweeter part of the plant, of a thick ſubſtance indeed, and a quality anſwerable to that from whence it was extracted. And from thence it takes the name of Graſſe-honey, Bean-honey, Lilly-honey, Violet-honey, *&c.* reſpect being had to thoſe things from which it is collected or gathered. But that Honey is beſt for ſubſtance, which is of a fat oily conſiſtence, partaking of both, which doth of its own accord run out of the combs, (in Greek called ἄκοιτον; or rather ἄκεςτον) and doth not abound with dregs, and is quickly boyled, and doth caſt up very little or no ſcum; and alwaies ſo tenaciouſly ſticking together, that if you lift it up a good height on the top of you finger, it falls to the earth ſtill homogeneous, unſevered, no way parted aſunder, but remaines in one continued flake, or line. And to conclude, that which if fire be put to it, will ſooneſt ariſe in flame. Unleſs there be all theſe properties or moſt of them in your Honey, you ſhall diſcern the ſubſtance not of good Honey indeed, but of baſe, adulterate, impure traſh.

The beſt Honey how known.

Accidental properties of Honey.

The Accidents or accidental properties of honey, are likewiſe ſome good, ſome bad, both of them are taken from the ſeaſon, place, quality. If you reſpect the time or ſeaſon, the newer the honey the better it is accounted, and the Spring or Summer honey far beyond that is gathered in Autumn. The firſt of theſe is gathered from flowers only, and thoſe very tender and newly budded (thence called *Anthinum*, or Flower-honey). The ſecond is collected of nothing but herbs, and ripe flowers, thence called ὡραῖον, or Summer honey. The third, laſt and worſt, is had after the firſt Autumnal ſhowres, and that very ſandy or gritty and woody, gathered only of Heath or Ivie (which are then the only things green that are left) and from thence is called *Ericaum*, Heath-honey or Ivie-honey: all which (as I ſaid before) have their greateſt commendation from their freſhneſs or newneſs, becauſe with long keeping and concocting, they wax bitter; from whence the Proverb, He that will make a good mixture of wine and honey, muſt mingle with new Hymettian Honey, old Falernian Wine. It is alſo better or worſe in regard of the place whether proper or common. If you reſpect the proper place, or the veſſel wherein it is contained; the beſt honey is ſtill found in the bottome, for the droſs which is contracted either by ſoyl of herbs, or by the air whileſt it falls from ſo high a place, is caſt up to the top as froth; and in the bottome it is found to be more glutinous, ponderous, luſcious, and better compacted.

In what countreys the beſt Honey is to be found.

If you would attend the common place or region wherein it is gathered; according to the nature of the Countrey, ſo is the value of it.

In the firſt place and above all other, the *Attick, Athenian, Hymetick*, eſpecially, when made in the ſilver Mines, hath been hitherto adjudged the beſt honey, both in regard of the excellent nature of the Bees themſelves, as alſo for that thoſe Countreys do abound with Thyme and other choice plants and herbs, and likewiſe in regard of the goodneſſe of the place where the combs are made. *Dioſcorides* gives the next place, to the Iſlands of the *Cyclades*, or the *Ægean* Iſlands (which is very luſcious and pleaſant, and welnigh as good as the *Attick*) And the third and laſt place to the *Hyblean*, and *Sicilian*.

Johan. Bauhinus a very learned Phyſician, and ſurpaſſingly well ſeen in the knowledge of ſimples, ſaith that he ſaw of this *Attick* honey in *Verona* in an Apothecaries ſhop, which he found put up in the bladder of an Elephant, very thick, and weighing 21. pounds, of the length of two cubits, of the breadth of a cubit and a half. I ſuppoſe it was brought thither out of *Africk*, for how ſhould an Elephants bladder be had in *Athens*? In the judgement of *Cardanus*, that honey which comes from *Cephalenia*, an Iſland in the *Ionian* ſea is the beſt; next to that in *Europe*, is the *Spaniſh*, and that not without reaſon; in regard the dew for the moſt part in thoſe hotter regions is better concocted: and (in all Countreys) where the pureſt air is, there is the virgin Honey (*i. e.*) pure pale, and is made up as it is, having no need of fire to purge it. The *Taren-*

tine honey is alſo commended, as *Strabo* reports. About *Tagodaſt*, *Melela*, *Hea*, *Haſcora*, the iron Mountain *Rhabona*, *Echebdevena*; *Jo. Leo* ſaith there is very excellent *African* honey made. *Ludovicus Cadomuſtus* prefers the honey of *Sinegen*, *Andreas Corſalias* the Mombaren, *Edorades Barboſa* the Æthiopick, *Thomas Lopius* the Cathaian, *Franciſcus Alvares* the Tigremahonenian, *Sebaſtianus Baro* the Samogitick, *Enricus* the Lituanian, *Eraſmus Stella* the Ruſſian, *Thevet* the American, *P. Iovius* is exceeding much in the commendation of *Moſcovy* honey, but not ſo adviſedly, in as much as our Merchants, and *Sebaſt. Baro* a very impartial writer of thoſe things which are ſeen and done there, do very ſeriouſly affirm that in all the Dukedom of *Moſco*, there are neither Bees nor honey. *Albert. Campenſis* in his hiſtory of *Myſia* which is called *Britus*, ſaith that even in the *Hercinian* woods, there is extraordinary good honey to be found, and that altogether as good as the *Cecropian* or *Attick* honey may be. *Ælianus* affirms that in ſnowy and icy *Scythia*, there is Countrey honey very praiſe-worthy; and that it is carried to *Myſia* (where it is ſold at a very dear rate). But if the heat of the Coutrey doth add to the honey pureneſs and goodneſs, how is it poſſible ſuch excellent honey ſhould be had in *Scythia*, and *Samogithia*? Is it becauſe the flowers there growing and receiving the dew are better then in other places, and by that means cauſe it to be clearer and purer? Or is it becauſe of the North winds which are moſt frequent in thoſe parts, which do purge the air? Or is it becauſe as well Bees as men there are of more ſtrong conſtitutions, and therefore are better able and do take more pains to refine and work the honey in their ventricles? which is the more likely, ſeeing they were not able to live at all in that cold region, nor could not arrive at ſuch an Age (for there they live very long) if they were not very healthy and luſty of body.

Now whereas *Cardan* denies that there is any exquiſite honey made in moiſt Countreys: let *England* and *Ireland* challenge him for their right; which being obnoxious to ſhowres and very much rain, a thing fatall to Iſlands, do yeeld ſuch extraordinary pure honey, that it hath not the leaſt mixture of venome, and doth laſt a long time before it be corrupted or putrified; that we do not ſpeak of its excellent whiteneſs, hardneſs, ſweetneſs, hanging well together, viſcoſity and ponderouſneſs; and other principal ſigns of the goodneſs of it; But let us leave off to commend our own Countrey wherein good is to be found; and ſet forth thoſe Countreys which are infamous for the badneſs of it. For the extreme bitterneſs the *Cholchian* honey, and next the *Corſican*, and in ſome places the *Hungarian*, and the *Sardinian* hath an ill name. For in *Sardinia* Wormwood, in *Corſica* Roſe-lawrel, in *Colchis* the venomous Yew, and all of them in *Hungary*. Alſo the honey is venomous in *Heraclea* of *Pontus*, and in the flowers of Goats-bane fading with the wetneſs of the ſpring; for then the flowers contract that hurtfull venome; which doth preſently infect the honey-dew that falls upon them. There is alſo another kinde of pernicious honey made, which from the madneſs that it cauſeth, is termed Mad-honey; which *Pliny* conceiveth to be contracted from the flower of a certain ſhrub, very frequently growing there in the woods. *Dioſcorides* and *Aetius* do not amiſs impute this poyſon to be cauſed of great plenty of the venomous herb called Libbardsbane, or Wolf-wort which groweth there; in that it is cured with the very ſame remedies as the venome of that herb is. In *Carina*, *Perſis*, *Mauritania* and *Getulia*, bordering to *Maſſeſulia*, either by reaſon of vapours of the earth, or by reaſon of the virulent and poyſonous juice of the plants, poyſoned honey-combs are produced; but are deſcried by their duskie or blackiſh colour. In *Trapezuntum* in the Countrey of *Pontus*, *Pliny* reports of a certain honey that is gathered of the flowers of the Box-tree, which as it doth make thoſe that are well ſick with the noyſome ſmell of it, ſo thoſe that are not well it reſtores to health. On the trees of the *Heptocometanes*, a people near unto *Cholchis*, there growes a kinde of infectious honey. The which poyſon being drank makes men ſtupid, and out of their wits. This was ſent by the enemy to the three Legions of *Pompey* with a token for the deſire of peace, they drinking very freely of it, were put both beſides their wits, and their lives too (as *Strabo* ſaith). *Ovid* makes mention of the *Corſick* honey very infamous, being extracted from the flower of Hemlock, ſpeaking thus:

What Countreys produce bad honey.

I think it's Corſick *Honey, and the Bee*
From the cold Hemlocks flowers gathered thee.

But yet it may ſeem to be not ſo much for Dame Natures honour, that ſhe ſhould bring forth a thing ſo deſired of all men, as honey is, and ſo ordinarily to temper it with poyſon. Nay but in ſo doing ſhe did not amiſs, ſo to permit it to be; that thereby ſhe might make men more cautious and leſſe greedy, and to excite them not only to uſe that which ſhould be wholeſome, but to ſeek out for Antidotes againſt the unwholſomeneſs of it. And for that cauſe ſhe hath hedged the Roſe about with prickles; given the Bees a ſting, hath infected the Sage with Toad-ſpittle; mixed poyſon (and that very deadly too) with Honey, Sugar, and Manna.

The ſigns of poyſoned Honey, and the remedies againſt it.

The ſigns of poyſoned honey are theſe, it ſtaines the honey-comb with a kinde of Lead-colour, doth not become thick, it looks of a bright ſhining gliſtering hew, ſharp or bitter in taſte, and hath a ſtrange and uncouth ſmell, it is far more ponderous, then the other, as ſoon as it is taken it cauſeth neeſing, and a looſneſs of the belly, accompanied with exceſs of ſweating. They which have drunk it do tumble themſelves up and down upon the cold earth, very deſirous of refrigeration. The *Heraclean* poyſoned honey hath the ſame ſymptomes with the poyſon of Wolfs-bane, and hath the ſame way of cure. *Galen* reports that two Phyſicians in *Rome* taſted but a very ſmall quantity of poyſoned honey, and fell down dead in the open Market-place.

Againſt madneſs from eating honey, *Dioſcorides* preſcribes Rue to be eaten, and ſalt fiſh, and honey and water to be drank, but being taken they muſt be vomited up again; and he preſcribes the ſame remedie againſt this diſeaſe, as he doth againſt Wolfs-bane, and Roſe-lawrel: and *Pliny* agrees with him; alſo he adds one ſingular antidote, to eat a fiſh called a Gilt-head, which alſo wonderfully correcteth the loathing of good honey. *Gulielmus Placentia* bids to cauſe vomit abundantly, with ſyrup of Violets, acetoſus ſimplex, and warm water, eating ſalt fiſh before vomiting. Afterwards he gives Theriac with hot vinegar. *Chriſtophanus de honeſtis* perſwades vomiting, and to ſet cold water under the noſthrils, with the flowers of Violets, Water-lillies, and Fleawort. But his Bezoar ſtone, are Quince kernels bruiſed, and given with hot water, as *Sanctus Ardoinus* relates. *Avicenna* hath preſcribed nothing worth ſpeaking of, but what he had from others: for I underſtand not what he means by his *Aumeli*.

But what if I a youth and an Engliſh man, after ſo many grave and experienced Phyſicians ſhould aſſert this for a certain Antidote, *viz.* to take nothing down but the Bees themſelves. The likelyhood of the conjecture doth perſwade, and reaſon it ſelf doth ſomewhat ſeem to favour it: For unleſs that Dame Nature had given to theſe Bees, a very marvellous power againſt poyſoned honey (as amongſt men to the Pſilli againſt Serpents, to Storks and Peacocks amongſt the Birds) without all doubt with gathering of it, ſwallowing of it, and for ſome time keeping of it in their bodies, yea concocting of it there, they would be grievouſly pained, and the poyſon running and diſperſing it ſelf through all the parts would kill them.

Now the Terreſtrial honey, although it be not alwaies poyſonous, yet by reaſon of the blackneſs and clammineſs of it, 'tis not much to be commended: alſo it is often found to be ſubject to be infected by the venomous breath of Serpents, Toads, red Toads, and therefore is carefully to be avoided.

The temper of Honey.

Now let us come to the Qualities of Honey; whereof ſome are firſt or primary, others derived from them; ſome formal, ſome ſpecifical, which we deſervedly call Energetical, or operative. In reſpect of the firſt Craſis or temper, Honey is thought to be hot and dry in the ſecond degree, for which cauſe *Galen* did forbid thoſe that are in Hectick Feavers, and in all Feavers, young men, or thoſe that have the yellow Jaundies to uſe it; whereas in cold diſtempers he doth very much commend it, and did preſcribe it to thoſe that were troubled with a raw and watry ſtomach; whom if you gently anoint therewith, it doth very much nouriſh, and cauſeth a good colour and conſtitution of body. If you deſire to know the ſecond qualities of honey, (*viz.* the ſmelling, taſting, viſible, tactile) the beſt honey ought not to have the eminent quality of any herb, or other thing whatſoever: and therefore the honey that doth ſtrongly ſmell of Thyme, *Galen* rejects; and yet is of it ſelf a moſt ſweet and fragrant ſmell, and not without a certain ſpirituous fragrancy; ſuch is that which in the middle of the ſpring, is perceived to be in the air about break of day. But if it have an ill ſavour, it is putrefied not being well kept. If it ſmell ſtrong, it hath contracted ſome contagion from Hemlock: if it ſting as it were and prick the noſe with its ſent, it is an argument of ſome poyſon, or too much acrimony couched in it. If it ſmell not at all, it is ſtark dead, no ſpirit in it. If it ſmell of Thyme, Linden, or Teil-tree, Roſemary, Box, Wormwood, *&c.* it ſhewes that it is degenerated into their nature. The like is to be ſaid of the Taſte of honey, which is known either by the herbs, age of it, or by the colour of it to be mixt, or adulterate, or natural, that is to ſay, ſtriking, and filling the tongue with a certain fine and lively ſweetneſs, ſo that it may ſeem to ſome to be a little tart.

As for what concerns the colour of the beſt honey; in the *Tigremahonick* and *Tagodoſtick* Region, that of a milky colour is preferred in hotter Countreys, that which is white and tranſparent, but commonly that which carries away the garland and is eſteemed above the reſt, is yellow, and of the colour of Gold. And in the ſecond rank is that which is white and tranſparent, which I with *Ariſtotle* ſhould put in the firſt place. For that it is a ſign of pure honey and not infected with any tincture of herbs. The bright ſhining is alſo by him commended if it be not ſummer honey, for the honey that is gathered at that ſeaſon of the year (like wax or butter) either by reaſon of the abundance of yellow flowers, or the ſcorching heat of the air, it comes to be of a deep and full yellow, yea almoſt quite red. But if the Erycæan or Anthine appear reddiſh, it is not without cauſe accounted unwholſome, becauſe it is not in its ſeaſon. Suſpected and of ill name, are the black, duskie, bright red, and above all the lead colours, which whether they appear in the comb, or in the honey, ſometimes are evident ſigns of corruption and putrefaction, and ſometimes of poyſon. That honey is beſt in touch that is fat, clammy, glutinous, heavy, and moſt like to the clear liquor of Turpentine every where like it ſelf, that is pure without any, or with very few dregs, that is melted with a very ſoft fire, and with the leaſt cold as it were congealed into little ſtones.

The Energetical or operative qualities of honey are ſeen in the uſe of it; the which is of divers ſorts, whether you turn you to the Apothecaries ſhop, or to the Kitchen, for ſo mightily doth it nouriſh, and preſerve health entire, and men long-lived, that the *Greeks* thought the *Cyrneans* by reaſon of their conſtant uſing of it, lived long, being old men, as *Herodotus*, *Athenæus*, and *Diodorus Siculus* teſtifie. *Pollio* indeed being asked, how it came to paſs that he lived to be ſo old as he was, made anſwer, Becauſe from his youth he uſed Oyl without his body, and Wine mingled with

Honey within. More then this all flowers, fruits, ſimples, and compounded medicaments, or confections by mingling them with honey are preſerved entire from putrefaction; in which faculty or virtue it ſo excells, that even the *Babylonians* were wont to bury the dead corpſes of their noble men in it; as *Herodotus* witneſſeth in *Thalia.* Vintners alſo and ſuch as deal in Wines that will play the knaves, when they obſerve a piece of Wine decaying, and at its laſt almoſt, then they put honey to it, to bring it to life again; by which means the ſophiſticate wine appears pure, and reliſheth very well upon the palat, though never ſo critical and curious. It is not ſubject to putrefaction. Fruits, and all other bodies are kept in it very long. Yet if it be but touched by its enemy, bread, it putrefies. They therefore that ſell honey, are very wary, leſt children as they paſs by ſhould dip their bread in it: for ſo it will preſently corrupt, and turn into Ants or ſuch like creatures; if we will believe *Paracelſus* for his natural skill, in the nature of things, a moſt famous Philoſopher. With admixtion of honey alſo *Galen* amendeth the naughtineſs of ſweet meats when they begin to fail. Honey mingled with other things, doth both nouriſh and cauſe a good colour; but taken by it ſelf without any other thing, it doth rather make the body lean than nouriſh it; becauſe it doth cauſe urine, and purge the belly beyond all meaſure. *Hippocrates* ſaith, if you take the ſeeds of Cucumers, or the ſeeds of any other plant, and keep them for ſome time in honey, and afterwards ſow or ſet them, the fruit that groweth of them will taſte the ſweeter.

The medicinal vertues of Honey.

As for the medicinal and Phyſical vertues of Honey; It cauſeth heat, cleanſeth ſores and ulcers excellently, wears them away, and removes them in what part of the body ſoever gathered: as *Galen*, *Avicen*, *Celſus*, and *Pliny* have obſerved. It perfectly cureth the diſeaſe which cauſeth the hair of the head or beard to come off by the roots, called the Foxes evill, and other filthy ulcers of the head. *Plin.* To regain hair loſt by the diſeaſe aforeſaid, and for long Agues, it is very effectual, if the party be anointed with it raw as it is; or with the honey-comb newly dreined or emptied. *Galen.* But above and beyond all, the Oyl of honey diſtilled doth effect it. The water that droppeth from the honey, doth excellently cleanſe the skin, provoke urine, extinguiſh the burning heat of Feavers, open the obſtructions of the bowels, quench thirſt. The chaulk or ſalt of it, as it is of all corroſives, the leaſt painful, ſo it is moſt energetical and operative, and therefore is very much commended by Chymicks, and Chirurgeons, for to cure that kernell or tumour of fleſh which groweth upon the yard. But how many, and how ample virtues that quinteſſence of Honey (as they call it) hath attained againſt the ſtrength of all diſeaſes whatſoever, is excellently deſcribed by *Iſaacus Belga*, the predeceſſor of *Paracelſus.* Nay without doubt, if wilde honey, and raw, was able ſo to prolong the health and life of *Democrates*, *Pollio*, *John the Baptiſt*, in a word, of the *Pythagoreans*, and *Cyreneans* (as aforementioned) how much more will it do being refined, and heightned to the higheſt degree of nutrition? The *Epicureans* who took the beſt way they could to provide for their health and their pleaſure, fed alwaies upon Ambroſia, as *Tzetzes* reports, which did conſiſt of a tenth part of honey; as if they meant by the uſe of it, to ſtave off all pains and griefs, and live free from all diſeaſes and maladies. It doth wonderfully help the ulcers in the ears if it be powred warm into them, and eſpecially if an ill ſent be joyned with them. Moreover in their hiſſing, noyſes, inflamations, *Galen* commands to inſtill *Attick* Honey, Butter, oyl of Roſes, and as much warm water *Marcellus Empyricus* uſed to infuſe into the ear that was pained. The ſame alſo very much commends honey mingled or kneaded with the ordure of a young Infant, to cure the dulneſs of the ſight, and the white ſpots in the eye. *Vegetius* by this means cures the watery eyes and dropping of the eyes cauſed by rheume or diſtillation. Firſt of all a little below the eye he drawes bloud and anoints them with the pureſt honey till it be whole. But yet care muſt be had (as *Columella* very well hints) that as often as the eyes are anointed with honey, they be beſmeared round about with melted pitch and oyl, leſt the Waſps and Bees infeſt and hurt them. Hear alſo what *Marcellus* ſaith, touching the clearing up of the eyes, and he preſcribes this: The honey pure and neat wherein the Bees are dead, let that drop into the eyes; or honey mixt with the aſhes of the heads of Bees, makes the eyes very clear. And again mingle *Attick* honey with the firſt ordure the Infant makes, together with the milk of the Nurſe; and with that anoint the eyes that are ſo dull what ever the cauſe of it be; but firſt of all you muſt binde the patient to a form or ladder; for otherwiſe ſuch is the ſtrength of the medicine, that he will not be able to endure it. Which is ſuch a preſent remedy, that in three daies, it will fully reſtore the ſight, and take away every blemiſh of the eye. The Gall of a Vulture mingled with the juice of Horehound (twice as much in weight as the gall is) and two parts of honey cures the ſuffuſion of the eyes. *Gal. in Euporiſt.* Otherwhere, he mingles one part of the gall of the Sea-Tortoiſe, and four times as much honey, and anoints the eyes with it. *Serenus* preſcribes ſuch a receipt to cauſe one to be quick ſighted.

Mingle Hyblæan honey with the gall
Of Goats, 'tis good to make one ſee withall.

Give Infants butter and honey, for nothing is better for their breeding teeth, and for ſore mouths. *Galen* bids us rub their gums with nothing but honey. For it wonderfully helps to their breeding of teeth, preſerving, cleanſing and beautifying of them. Alſo againſt the pain of the jawes. If with Arabian honey you joyn field-poppy, it cures it. And ſometimes pure honey is mingled with clear water: and this, as *Serenus* and *Pliny* teſtifie, doth notably cure the drineſs of the tongue in Feavers, the Quinſie, and the diſeaſes of the Uvula, Throat, Jawes, of the Tonſils; againſt difficulty of breathing, and to cauſe one to expectorate, either by it ſelf, or mingled with other things, it is highly commended by *Hippocrates*. And for the convulſion of the laps of the lungs (which uſeth to be a deadly diſeaſe) the drinking of cold water, and of that wherein a honey-comb is ſteeped is very effectual. Alſo, if the ſtomack be not hot, cholerick, bitter, nauſeating or feaveriſh, it makes it ſtrong and vigorous, and nouriſheth it much, not ſuffering milk to curdle in it: it cleanſeth the reins, boyled with water and butter it is good againſt the ſtone. *Avicenna.* It eaſeth the pain of the ſpleen, but it muſt be outwardly applyed with the dead Bees; for taken inwardly it hurts both the liver and the ſpleen, ſaith *Galen*. When it is raw it looſeneth the belly, but boyled with the Bees, or with new cheeſe it bindes the belly ſo much, that *Galen* holds it to be a ſecret againſt the Dyſentery and colick paſſions: ſo doth *Celſus* alſo and *Pliny*. *Hippocrates* mingled honey with all Medicaments that were to ſoften the belly. Honey mingled with roſin, is a cure for the cold Teſticles, as *Pliny* ſaith, who alſo affirms that the aſhes of Oxe-leather mingled with honey, cures all running ſores, and botches. Nitre with honey and Cowes milk, cures ulcers of the face; and the froth of honey with oyl of Walnuts, amends the burning of the skin: it is excellent for old people, and ſuch as have cold ſtomachs; and being boyled it diſcuſſes wind, and moves urine mightily. *Galen.* *Hollerius* reckoneth honey amongſt Diaphoreticks, becauſe it openeth and maketh the paſſages clear: *Galen* placeth it amongſt Diureticks. It layeth down its acrimony by being mingled with water, or being boyled; and therefore *Galen* preſcribes boyled honey, to cloſe up ulcers that are hollow. Salt with meal and honey takes away the pain of a joynt that is diſlocated, diſcuſſes the ſwelling, and makes it more apt to be reduced. I might here ſet down the plaiſter of *Aetius* and *Aegineta* called *Diamelleum*, the Tapſimel of *Arden*, and all ſyrups that were anciently made of honey. In whoſe place the Neotericks have put ſugar, but I know not by what reaſon. For if honey of *Athens*, or ſome as good, be at hand, and doth not want its due preparation, do not uſe ſugar that is earthly, reedy and ſo full of dregs, not comparable either for uſe, original, or any way whatſoever with this heavenly dew honey. But to let this paſs, let us reckon up the kinds of drinks and meats made of honey. Six kindes of honey-drink the Ancients made principally. Honey and water, honey and wine, honey and vinegar, the waſhing of the combs, juice of ſome grapes and honey, ſea-water and honey.

The firſt is called by *Pollux* and *Nicander*, *Hydromel*, or μελίκρατον. *Galen*, *Pliny*, *Aegineta* and *Dioſcorides* have ſet down the making of it. *Hydromel* of *Galen*. Take ſweet pure clean fountain water 8. pounds, the beſt honey 1. pound, boyle them at a ſoft fire in an earthen veſſel, take off the skim a top oft times, and boyl it to its thickneſs. If it muſt be drunk preſently, it muſt be made thin as water, if it muſt be ſet up to keep, boyl it longer, till it be thick, as a julep; if it be kept long it pierceth deeper into the parts far off, and is ſooner converted into choler. Alſo boyling acquires to it many more faculties; for being little boyled it inflates more, it purges more, and nouriſheth leſſe. Longer boyled, it diſſipates wind, nouriſheth more and purges leſſe. It is ſpiced at pleaſure, with Ginger, Saffron, Gallia Moſchata, Lignum aloes, *&c.* It is made alſo another way, of honey 1. pound, water 8. pound, leaven 3. ounces; put all in a wooden veſſel, leaving three or four fingers empty that it may work the better: when it hath done working, ſtop the veſſel and let it be well hoopt, and after three months it will be fit to drink. *Hydromel* of *Pliny*, Take of pure rain-water that hath been kept five years, 12 pound, boyl it to thirds, add to it a third part of old honey, and in the dog-daies ſet it in the ſun for 40 daies, and letting it ſo ſtand, on the tenth day ſtop the veſſel, this is called *Hydromel*, that with age will taſte like wine, made no where better than in *Phrygia*. It was given to ſick people that deſired wine, but now it hath been forbidden many years. *Hydromel* of *Aegineta*, Take the juice of bruiſed Quinces 5 pounds, fountain water Sextarii, boyl them till they grow ſoft, take them from the fire, let them cool, then ſtrain them, and cruſh out the Quinces and caſt them away, add to this water half honey, boyl it, ſcum it, till an eighth part be conſumed: ſome make it of ſweet Apples or Pears the ſame way. *Hydromel* of *Dyoſcorides*, is made of two parts of old rain-water, and one part of honey mingled, and ſet in the Sun. Some call it Hydromel, becauſe it is wont to be made of the waſhing of the honey combs with water, but it muſt not be made ſtronger, becauſe it will hurt ſick people by too much matter proceeding from the wax. Hydromel after it hath been long kept, is as ſtrong as ſmall wines, or Lora, being but half ſo old. Wherefore it is preferred before them in abating inflamations. The uſe of old Metheglin is condemned, for ſuch as are inflamed or coſtive, but it is good for weak ſtomacks, and ſuch as loath their meat, or ſick people that ſweat much, or for thoſe that are thirſty, or after a burning feaver hath waſted a man. *Aetius* deſcribes a Clyſter only of honey and water to move the belly, and with the ſame he cleanſeth hollow ulcers. *Galen* commends, and uſes Melicrate (wherein ſome Hyſop, Origanum, or Thyme, or Peniroyal hath been boyled) to prepare and purge groſs humours in an acute diſeaſe, but he commends it not for the want of a ſtomach. Lately the Engliſh found out a new compoſition of Hydromel, (they call it *Varii*) and ſerves better for ſhips than any Wine. The preparation is this, Take Barley torrefied after due ſteeping in water, what you pleaſe, boyl it long in 5 quarts of fountain water, till it taſte well of the malt: 1 pound of this boyled with 8 pounds of honey, and 20 pounds of water, makes a drink that taſts moſt ſweet, and is moſt healthful for uſe. It nouriſheth well, is hardly corrupted, and keeps very long. *Hydromel* of the *Moſcovites*, Take of the decoction with Hops 12 pounds, purified honey ſcummed 1 pound and half, toſted bread ſtrowed with the flour of malt, one piece, put all into a wooden veſſel well covered, and place it near a ſtool, take away the froth that riſeth, twice a day, with a wooden skimmer that hath holes in it; after 10 daies ſet it up in your cellar, after 14 daies drink it: They make it the ſame way in ſummer with fair water, and made this way they drink it in winter, and when they deſire to be drunk. In Ruſs and Engliſh they call it Mede.

2. *Oenomeli*, it is called honeyed Wine. *Pollux* calls it Melicraton; *Plautus*, honeyed Wine, others call it Mulſum. *Ariſtæus* was the firſt that brought this into *Thrace*, being taken with the incredible ſweetneſs of Honey and Wine mingled together. Mulſum made of honey of *Heraclea*, when it growes old ceaſeth to be hurtful. *Pliny*. The new writers deſcribe this potion thus, Take 1 gallon of the beſt Honey, 6 gallons of old Wine, Salt 2 ounces; it muſt then be skimmed as it works, then put in the Salt, and ſeaſon it with Anniſe-ſeed, and roots of Elecampane let down into the veſſel with a bag. The *Egyptians* make it otherwiſe, namely of Raiſins and Honey, which they call ἡλεακὸν, becauſe it is of a very ſweet taſte. *Oenomeli ſpiced*, Take Pepper waſht and dried, 8 ſcruples, *Athenian* Honey 1 ſextarius, and 5 ſextarii of old white Wine, mingle them. *Celſus* (as I remember) and *Calius* ſpeak of it. *Aurelianus* in the cure of the Sciatica. Alſo there is a kinde of Mulſum which the Greeks call Κύφι μέγα, conſiſting of 36 ingredients. *Gorreus*. May be it is the ſame which *Athenæus* cals οἶνος κυκεώς. For κυκεὼν is a drink made of Wine and Honey, and divers herbs mingled. Such as our *Welch* men call Metheglin. The *Iriſh* prepare a diſtilled Oenomeli made with Honey, Wine and ſome herbs, which they cal *Uſquebach*, not unfit for a nation that feeds on fleſh raw, or but half ſod. *Mulſum* made of ſweet new Wine the *Greeks* call Nectar; to new Wine ſodden, they add a tenth part of Honey, but this kinde is offenſive to the ſtomach, and cauſeth windineſs; it is given to purge the belly. *Hippocrates* cals it *Melihedia*, and *Melichron*, as *Galen* notes. *Athenæus* writes that another kinde, which was true Nectar indeed, was wont to be made about *Olympus* a Mountain of *Lydia*, of Wine, Bees-combs, and ſweet flowers. I take notice that *Alexandrida* did not think Nectar to be drink, but the meat of the gods. For he ſaith, *I eat Nectar chewing, and miniſtring to Jupiter, I drink Ambroſia.* Yet *Homer* and the greateſt part of the Poets took Nectar for drink. *Dioſcorides* made Oenomeli thus, Take old Wine 2 Sextarius's, the beſt Honey 1 Sextarius. Some that they may drink it the ſooner, boyl honey with wine and ſtrain it. Some for profit ſake to 6 ſextarius's of new wine working, add one of honey, and when it hath workt, they put it up in a veſſel, for it remains ſweet. The uſe of honied Wine is this: It is given in long Feavers that have weakned the ſtomach with crudities collected in it. It looſeth the belly gently, it provoketh urine, it cleanſeth the ſtomach, it is good for the diſeaſe of the joynts, faults of the reins, a weak head, and to women that drink no wine, for it is pleaſant in ſmell, and nouriſheth the body. It moveth vomit drunk with oyle, and it is profitably given to them that have drunk poyſon; as alſo for ſuch as are weak, and their pulſe is feeble; for ſuch as are troubled with a cough, and a ſhort breath, or Impoſtume in the Lungs, and thoſe that are waſted with extream ſweating. But then it is for to mingle it with Hydromel. Alſo *Galen* preſcribes to them Melicrate qualified with water, that have had a ſhaking fit not above a week, and nature being yet ſtrong. Some there are that utterly condemn this in Feavers: but that muſt be underſtood of ſome times in Feavers. *Romulus*, a certain gueſt of *Cæſars*, being asked how he had preſerved the natural vigor of his body and minde ſo long, (for he was above a hundred years old) he anſwered, Without with oyl, within with honey and wine ſodden together, as *Pollio* did: That we may the more wonder at the uſe of Mulſum, which the Ancients eſteemed very much, for that they were perſwaded that all acrimony of the minde, was pacified with ſweet liquors, and the ſpirits made peacable, the paſſages made ſofter and fitter for tranſpiration, and that it was alſo phyſick for manners. *Plinius*.

See *Euonymus* his Nectar in *Wickerus* his ſpecial Antidote. *fol.* 191. & 195.

3. *Oxymeli*, or honeyed Vinegar is thus made, as *Pliny* thinks. Take honey 6 pound, old Vinegar 5 *Heminæ*, Sea-ſalt 1 pound, rain-water (which *Galen* likes not of) 5 ſextarii. It muſt all be made ſcalding hot ten times, and then ſet in the Sun, till it grow ſtale, and *Oxymel* is made. But it laſts not above one year. All theſe, as alſo all made Wines are condemned by *Themiſon* a chief writer. *Galen* prepares it thus. Let the beſt honey be clarified, and add ſo much wine-vinegar to it, that it may pleaſe the ſick man's palate, boyl them till they are well mingled; and when you will uſe it, mingle as much water as you pleaſe: it is boyled enough when it ſends forth no more ſcum. Some there are perhaps that deliver theſe compoſitions ſomewhat otherwiſe, and *Dioſcorides* he differs from *Miſues*, and *Nicolaus* from them both. In *Miſue* you ſhall finde ten ſeveral ſorts of it; in *Nicolaus* I have ſeen ſeventeen: ſome ſimple, ſome compound with Squills, Thyme, Flower de luce, and other herbs and roots.

Alſo *Geſner* brought in an Oxymel with Hellebore, which he commends not a little in his Greek Epiſtle to *Adolphus Otto*. To make thin, thick and clammy humours, and to root them out; but eſpecially to make way for inſenſible tranſpiration, that is to draw forth from the center to the ſuperficies of the body. But you ſhall finde every where ſcattered in the Book of his Epiſtles, what force it hath againſt Melancholy, Cacheria, Dropſies, Epilepſies, and Feavers, where alſo you have the Oxymels made with Hellebore, the great and the ſmall.

4. *Apomeli of Philagrius in Ægineta.* Take white combs full of honey 1 pound, fountain-water 3 pound and half; break the combs and preſs out the honey, boyl this water and honey together, untill the froth of it, and that which as it were the waxy part ſwim a top, and be by degrees taken off, when it is cool put it into a veſſel. It cools lightly, as *Galen* ſaith, wherefore in Phlegmone, and wearineſs in a Feaver, it is very good. *Avicenna* his ſyrup of Honey, ſeems to be the ſame with this. In *Nicolaus* you ſhal finde three kinds of *Apomeli*, and in *Aetius, Oribaſius, Actuarius* yet more; for they are changed according to the nature of the diſeaſe and the ſick patient, that is the reaſon that we had rather only touch upon them, then to deſcribe them at large. It is drunk all the ſummer to cool the body, at which time any man may drink of it, (eſpecially when it growes ſowriſh) it is held to be of a middle nature between a *Mulſum* and an *Oxymel. Galen.* It is alſo uſeful to expectorate with, to move urine, to purge the belly, and to cut thick humours. *Ægineta, Ruelius.*

5. *Omphacomeli,* (which *Grapoldus* did not well tranſlate Bitter honey) it is made of the juice of unripe grapes, 3 ſaxtarii, and 1 ſextarius of honey, boyled together, or ſet a ſunning for 40 daies: when it hath done working, put it in a veſſel and ſtop it cloſe, and keep it for your uſe. The ſame way almoſt is *Melomeli* of Quinces made, *Rhodomeli* of roſes, honey of Myrtils, Rhoites, Rhodoſtacte, *&c.* you may finde their deſcriptions and uſe in *Aetius.*

6. *Thalaſſiomeli,* is made of equal parts of ſea-water, rain-water, and honey purified and ſet in the ſun in a pitched veſſel in the Dog-daies: ſome to two parts of ſea-water add one part of honey, and ſo tun it up. They both purge, but this hath far the leſs. *Gorraus.* It is pleaſant in taſte and ſmell, it purgeth gently, without troubling the ſtomach at all. *Pliny.* And thus much of Honied drinks.

It would be too long for me, and tedious to the Reader, ſhould I ſet down all kinde of Meats which the *Athenians* provided with honey, and other ingredients; therefore it ſhall not be needfull to rehearſe them; and it may be it is impoſſible: for divers Nations did variouſly mingle honey with other things, as with milk, meat, flour, wheat, cheeſe, and with Seſama, whence are theſe meats made of honey called χόρια, ἄλευρα, κόνδυλοι, σησαμίδες, μελίπηκτα· Juncates or honey-meats, and wafers, they have divers names as the thing is made. *Athenæus.* They ſacrificed to *Ceres* this bread of felicity, as the Scholiaſt upon *Nicander* ſheweth, we call it honey-bread. Alſo the Scripture teacheth, that the nations offered wafers made with honey to the Sun and Moon, and to the Queen of heaven: wherefore *Moſes* forbad the Iſraelites to offer honey in their offerings unto God, *Leviticus* the 2. But it may be that was rather forbid the Jewes becauſe honey hath a power of fermenting. Alſo they made it with ſuet, freſh cheeſe, oyl and raiſins; alſo to cauſe ſleep, the Ancients made a kinde of meat of honey and poppy-ſeed, very pleaſant, which they called *Cocetum,* as *Feſtus* reports. Alſo *Ambroſia* which was held to be the meat of the gods, had that exceeding ſweetneſs, whereby it was thought to be ſo healthful, from honey, to make men immortal; of which *Athenæus* and *Bellonius* write at large. But the *Indians* have the beſt and the moſt wholſome juncates, who were held to be *Barbarians,* but the truth is, they may for their wit be compared with any in *Europe,* and for what I can ſee, to be preferred before them.

But before honey be uſed it muſt be clarified: which is thus performed: Take honey and fountain water diſtilled of each 2 pound, or as much as you pleaſe, boyl them and skim off all that ſwims a top, till all the water be conſumed. Then clarifie it with 12 whites of Eggs. *Abynzoar.* But if you make it hard, pure, and faſt together, mingle half a pound of the beſt wine to one pound of honey thus clarified, boyl them, skimming them till they grow hard, put it in a vial, and ſet it in boyling water, and it will grow clear, and ſtony like ſugar-candy. If honey be but mean, it will grow better by boyling: whether honey be ſophiſticate or pure, you ſhall know by burning it; for what is not ſophiſticate will burn purely. *The Author of the Geoponicon.* But if you would ſeparate the quinteſſence of honey, oyl, ſalt, water, vinegar, ſee *Iſaac Belga,* the treaſure of *Euonymus* and other Chymiſts, we will not venture into this ocean, being already plunged in the harbour. Now I ſhall ſhew you its firſt inventers.

Saturn was the firſt inventer of honey as *Macrobius* and they of *Cyrene* boaſt. *Cælius* and *Pliny* ſay that *Ariſtæus* firſt invented honey-works. But *Diodorus Siculus* writes, that the *Curetes* of *Crete* firſt found out the uſe and way of honey. Some aſcribe this to the *Theſſalians.* Others to *Meliſſus* the moſt ancient King of the *Greeks.* Some to *Bacchus,* as *Ovid* teſtifieth. The *Greeks* feign, that a Nymph called *Meliſſa* firſt found out honey, and the uſe of it, and thence ſhe had her Name given her from Bees. Who found it, or when, it is not much matter. It is a heavenly gift, and very profitable for men, if they uſe it well and warily.

CHAP.

Chap. VI.

Concerning Wax, Bee-glew, dregs of Wax, Piſſoceros, Bees-bread, and of their Nature and Uſe.

WAx in Hebrew, *Donagh*; in Arabick, *Mum*, *Examacha*, *Zamache*, *Aberau*; in Greek, *κήριον*, *κηρὸς* and *μάλθη*; in High Duch, *Wachs*; in Engliſh, *Wax*; in Brabant, *Waſs*; in French, *Cire*; in Italian, *Cera*; in Spaniſh, *Cicrai*; it is either natural or artificial. Simple and natural Wax is the thicker part of the combs that contains the honey; and it is either virgins wax, or of a ſecond ſort; virgins wax is that the younger ſwarms of Bees make from the young branches of flowers. (That is the firſt Swarm put into a new Hive.) For ſo, as *Ariſtotle* and *Hollerius* teſtifie, the Bee-maſters call it, which they diligently ſeparate from the firſt and new combs, as being by nature the moſt perfect of all: the ſecond ſort, though they reject not, yet is it ſhort of the other for eſteem and worth. The way they make wax, is this: They creep upon the flowers firſt with their fore-feet, and they touch them but lightly, then they wipe and rub themſelves in the middle of them; then they nimbly and artificially lay down the tincture of the flowers which they have wrought with their water or moiſture, and compacted between the legs of their hinder feet, and having gathered as much in quantity, and in form like a lentil, when they have this burden they carry it home to their houſes. That matter is of divers colours for the nature of the flowers, as yellow, red, pale, ſaffron coloured, white, black: which is the cauſe that the wax is of ſo many colours: they make wax, ſaith *Pliny*, of all flowers and plants, except ſorrel and arrach. Artificial wax, is that to which our labour and art muſt be uſed. Divers Authors uſe divers waies to make wax. *Palladius* in the month of *July*, takes out the natural wax which he firſt prepares ſoftly in a braſs veſſel full of boyling water, cutting the combs ſmall, and after that in other veſſels he makes it up into forms, being melted. *Pliny* takes another way. The wax is made when the honey is preſſed forth, but firſt they are cleanſed with water, (that no reliques of honey remain) and he dries them three daies in the dark or in the ſhade. The fourth day he melts them at the fire in a new earthen pot, the water covering them, and then he ſtrains them through a basket; again the wax is boyled in the ſame pot and in the ſame water, and other cold water is put to it, ſo often as you ſee the veſſels ſmeered about with honey. *Columella* goes this way. After that the remainders of the combs are diligently waſhed with clear water, the honey having been firſt well ſtrained out, they are caſt into a braſſe pan, then he put water to them, and melted them at the fire, then he powred the wax through ſtraw or ruſhes to ſtrain it, and then he boyled it again as he did before, and then putting water to it, he made it of what form he pleaſed, and when it grew hard it was eaſie to take it forth, becauſe the wax hath water under it that will not let the wax ſtick to the forms. Now wax differs two waies, for goodneſs and for uſe. The beſt wax is collected by the principal Bees, and is ſo wrought by the beſt artiſts, that it may appear white, tender, handſome, all like it ſelf, pure, ſomewhat fat, well ſented, without nerves or skins, hairs or any ſuperfluous matter. Such as *Nonius Marcellus* deſcribes out of *Varro* for *Tarentine* wax made by the Bees or *Miletus*. Wax is ſo much the more depraved, the farther it is from theſe good ſigns. The uſe of wax is twofold, for phyſick, or for other matters what concerns phyſick: wax is a mean between hot and moiſt, cold and dry, and emollient. It hath ſome groſs parts, and that ſtopt, it not only dries, but ſeems by accident to moiſten by hindring tranſpiration. Hence it is the matter of other medicaments. But by it ſelf it digeſts lightly, being laid outwardly, for it hath a little diſcuſſing hot faculty, of which it partakes as much as honey doth. In drink it cures the dyſentery, ten grains of wax ſwallowed ſo big as millet ſeeds, will not ſuffer milk to clodder in Nurſes breaſts. *Dioſcorid.* *Aetius* bids to give it in the bigneſs of three Tares. A certain *Anonymus*, preſcribes this remedy againſt pains of the head and malignant humours ariſing from a Feaver or any other cauſe. Take virgins wax what you pleaſe, ſoften it at the fire that you may work it at your pleaſure: lay it as a cap on the ſhorn head of the patient, and upon that put on a linnen cap that it fall not off. After three daies lay it off, or uſe it ſo long till you finde the pain gone. Put wax into the hollow tooth that akes, and with a hot probe touch it. *Archigenes.* Wax applyed to the nerves and tendons being bare, will cover them with fleſh and cure them. *Aetius.* For the cold pain of the joynts. Take a clout dipt in melted wax, lay it handſomely and as cloſely on as the ſick can endure it for one night, and it will cure it. *Galenus.* Moreover it is good to anoint the ears with Bears greaſe, and Buls tallow, and melted wax. *Marcellus.* You may diſcuſs corns in the eyelids with a fomentation of white wax. *Gal. ex Archigen.* No man that is not an enemy of truth, will deny but that oyl of wax is of principal uſe to cure pains of the Gout, to ſoften hard ſwellings, and to heal wounds and ulcers. Alſo it is mingled as *Galen* witneſſeth to the medicament of *Aſclepias* againſt an *Ozena*, and it is a certain cure for the Jaundies. A certain Lady of moſt bleſſed memory, wonderfully recommended theſe pills to *Geſner*: Take the yolk of an egge boyled hard, and as much wax, with ſome grains of ſaffron and ſyrup of wormwood. Make pills to take morning and evening. They cauſe thirſt exceedingly, but being continued by degrees without drink, they root out the diſeaſe. Alſo a ball is made of wax to keep up the womb ſubject to fall down; and medicaments made up with it will laſt the longer. *Clodius* the follower of *Aſclepias*. The *Greeks* were wont to give the Cyrenian juice wrapt up in wax, to ſwallow it the better. *Celius Aurel.* It is alſo the ground of all Cerats and Plaiſters. *Myrepſus* was the firſt that made a plaiſter without wax. It not only preſerves the living, but it keeps the dead alſo from putrefaction, for which cauſe, as now it is uſed by us, to wrap up perſons of great fortunes in wax, (as *Strabo* reports the *Perſians* were wont to do.) By a waxen probe hollow ulcers are beſt to be ſearched. The *Carthaginian* wax is the beſt for medicaments, the next is the *Pontick*, which is very yellow, and ſmells like honey, being very pure. *Pliny*. Which thing I wonder at amongſt honey that is venomous: the third in eſteem is from *Crete*, which is from abundance of Bee-glew: the laſt is the *Corſick* wax, becauſe it is collected from box, it is thought to have a phyſical quality.

Now followes the uſe of Wax otherwiſe. They that are rich, or ſick, or great men, deſire their candles to be made of it, by reaſon of the ſweet ſmell. Alſo the uſe of wax is not ſmall in ſtopping the chinks in veſſels, for tents in the camp to keep out rain, for bed-ticks that the feathers fly not out, to joyn pipes made of reeds, as *Ovid* ſang concerning the ſhepherds of old.

And with the Reed well waxed they play'd and ſang.

Alſo the moſt excellent Painters painted with wax, as *Pliny* reports, and they adorned ſhips with it. This kinde of painting, though it were not hurt by ſalt, nor by the ſun, nor by the wind, yet it was loſt we know not how, when *Apelles*, *Protogenes*, and *Zeuxis* died. Alſo the Ancients were wont to ſmeer over their writing tables with wax before that paper was invented, as *Juvenal* deſcribes it. And the younger *Pliny* in his Epiſtle to *Trajan*; I ſate by the nets, there was no hunting pole or lance by me, but a ſtyle and writing tables, I did meditate and ſet down ſome things, that though I ſhould have my hands empty, my writing tables might be full. Hence proceeded thoſe old forms of ſpeaking, In the firſt, ſecond, third, or laſt wax. For *Suetonius* proves that the *Romans* writ their Teſtaments in wax; in the life of *Caſar* in theſe words. He made *Q. Pedius* his heir to the laſt farthing, the reſt he placed in the bottom of the wax, that is, in the laſt part of his will. Nor is the uſe of ſealing wax little, whereby we ſeal letters and inſtruments. Of this there are four principal kindes, the *Punick* or white, the red or *Indian*, the black or *American*, the yellow or *European*. The *Punick* is made thus. The yellow wax is often laid in the open air, then they boyl it in ſea-water, adding Nitre to it: then with skimmers they take off the flower of the wax, and they powr it into a veſſel that hath a little cold water in it; then they boyl it apart in ſea-water, then they cool the veſſel. This is done thrice, and they then dry it on a bul-ruſh hurdle by day and by night in the open air, for this makes it white, the honey being drawn forth by the Sun, and the yellow colour breathed forth: when it is dryed they melt it, when it is melted they cover it with a thin cloth, and ſet it in the ſun, after it hath ſtood in the ſun it becomes exceeding white, being boyled once more. Wax is made white otherwiſe, but this is the moſt proper for medicaments, *Pliny*. I ſee that the Greeks ſpeak of is no other than which *Pliny* calls the *Punick* wax. *Aetius* ſpeaks of white wax in the *Unguent Martiatum*, and *Paulus* ſpeaks of it alſo. Black wax is either natural, as in the *Molucco* Iſlands, and many parts of *America*, it is gathered by the Bees themſelves (as we read in *Thevet* and in the Centuries of Navigations) or artificial, adding the aſhes of paper. Red wax or like Minium of *India*, is made with mingling Anchuſa or Cinnaber. There is another kinde of red wax, hard like a ſtone, but eaſie to break, the Merchants think their letters ſealed with this to be very ſure: yet there are ſome knaves ſo cunning that they will open them and ſhut them again not hurting them, that no man can poſſibly diſcern it; which art, though a chief Impoſtor ſhewed to *Pennius* when he was at *Paris*, yet he was too honeſt to reveal it to this miſchievous age. The *European* honey is of the natural colour, that is, yellow. But the colour and variety of things hath ſo bewitched us, that we are not content with natural colours, but we muſt imitate the *Punick*, *Indian*, *American* waxes, and above thoſe we muſt have green, dark light, blew wax, made of Verdigreaſe and other paints, and ſome Turpentine.

Propolis the Arabians call *Kur*, the Greeks call it σμήνιον, σιάμυλις, πρόπολις, [illegible], the Germans, *Vorſtotz*, *neben Wachs*, *Wachs winden*, *ſtop Wachs*; the Helvetians, (if I miſtake not) *Bes*, and *Binnen troſt*; the Engliſh, *Hive-droſs*; the Spaniards, *El vetun de las colmenas*. *Scribanius* takes it for Virgins wax: *Sylvaticus* falſly takes it for the dregs of the Hives: *Andreas Bellunenſis* calls it the foulneſs of the walls, and ſayes, that ſome abuſe it for Bdellium. Some maintain that *Propolis* drops from trees, others ſay it is the firſt comb. It is indeed a thicker yellowiſh matter, ſweet ſented, like to Storax, and duſtie like Maſtick, like to wax, but not yet made wax, whereby all paſſages are ſtopt againſt cold and rain. The third ſort is that black matter, and ſharp ſented, which *Ariſtotle* calls *Mitys*, *Gaza* and *Pliny* call *Commoſis*, the dregs of wax: the ſecond is called *Piſſoceros*, as you would ſay, a matter made of pitch and wax. The third *Propolis* is of a middle nature between theſe two ſupporters and wax, laid very thick at the mouthes of the Hives, chiefly in ſummer; and therefore it is called *Propolis*, as you would ſay belonging to the ſuburbs. Becauſe the Bees build with it at the doors before the Hive. *Propolis* (ſaith *Cordus* out of *Pliny*) perhaps is ſome roſin gum, growing upon the budding places of trees, which Bees gather and hang about the entrances of their Hives, to ſtop all chinks in winter againſt the cold. There are four ſorts of it. The firſt is collected only out of the black Poppy, which they call *Aegyrina*, that is, yellow; it is ſoft to be touched, and ſticks like bird-lime, it ſmels ſweet and comfortable to the head, cauſeth reſt, and is like Storax, it taſtes like Poplar buds. The ſecond is gathered from the Birch-tree, and is of a colour between a yellow, aſh, and green, it is ſoft and ductil alſo in handling. The third the Bees make out of the gum of the Poplar tree, called Alpina, but it is but ſeldom, and only in thoſe places, where no other Poplar tree or Birch abounds, but only that is called Alpina. The fourth or mingled, is gathered and confounded from all theſe trees, ſo that it hath a mixt colour, ſent, ſavour, and conſiſtence. *Cordus* ſaith almoſt ſo much; now let us hear *Pliny*. Propolis is a kinde of middle ſubſtance between honey and wax; rather between wax and Piſſoceros; and it ſeems to be gum collected by the Bees to ſtop up their hives. *Rondoletius* ſaith, it hath a thick ſubſtance, and the ſmell of leaven. *Pliny* ſaith, it ſmels ſo ſtrong that ſome uſe it for Galbanum. But in the ſpring gathering time of honey, this part that ſhuts their cells may be ſeparated, of which *Politianus* writes thus: That the Bee laies a white foundation of his various coloured wax. So that Propolis ſeems to be a thick foundation for the wax. But it is now out of uſe, nor can any man finde pure Propolis. For moſt Bee-maſters taking out the Hives, when all the honey is run forth, whatſoever is in the combs they mingle together, and keep none pure by it ſelf; nor is that wax which *Avicen* calls black Mum, any thing but the dregs of the combs, or elſe ſome ſediment that ſinks to the bottom of the water after the wax is boyled, and this is now Propolis; but Propolis is not pure, but ſome mingled matter. The nature of Propolis, is to diſſolve in oyl as wax, but it is more ponderous and thick, and ſinks to the bottome of it being melted, when wax ſwims on the top. Chooſe the ſweeteſt, pureſt, not ſophiſticate with wax, which you may eaſily part by powring it into water. The beſt Propolis is ſaid to be pure, moſt fragrant, without wax. That of *Crete* and *Paſſidium* is the moſt effectual, the Bees collect the greateſt part of it from the unctuoſity of Storax and Labdanum; they collect it queſtionleſs out of other plants: for they make Propolis where neither the Poplar tree, nor Birch, nor any of the foreſaid plants grow. Great is the vertue of pure Propolis, upon the groſs ſpirits, and it draws faulty matter out from the depth. *Hollerius*. It is of the nature of wax, but it powerfully drawes forth. *Dioſcorid*. *Celſus* placeth it in the number of biting remedies, ſaying that it digeſts and moves matter in ulcers. *Aetius* ſayes that it heats, diſcuſſes, ripens, cleanſes, attracts. The cleanſing force is not very ſtrong, the attracting is ſtrong enough, it is of thin parts, it heats in the ſecond degree complete, or in the beginning of the third: you muſt firſt ſoften it with your hands before you mingle it with other medicaments, and then taking the reſt from the fire, put it in and boyl it, for it will not well endure any boyling at the fire. It drawes out thorns and all ſplints that are within. *Aetius*. *Varro* ſaith, that for its manifold uſes it was ſold dearer in the market than honey. May be therefore Propolis was called holy wax, becauſe of *via ſacra* where they ſold it at *Rome*, as *Eargus* writes in the cures of hard ſwellings. They draw forth thorns and ſuch bodies ſticking in the fleſh, with runnet, (eſpecially of a Hare) powder of Frankincenſe, and Propolis. *Pliny*. It helps an old cough with its ſmell. It cures the roſe with water, and roots out ringworms by anointing them. *Diorſcorid*. It cures *Ozænas*: *Serapio*. *Pliny l.* 11. *c.* 7. tells of more of its Phyſical uſes.

The Uſe.

Ariſtotle calls *Eritbaca Sandaracha*, others call it *Cerinthum*, and *Smerion*, *l.* 2. *Ariſtot. de Plant.* The learned call it *Vernilago*; ſome from the time of the year, *Vernix*; this Glew, ſaith *Niphus*, the countrey Lombards call *Carbina*, but ours *Taram*. It is the meat the Bees make, which they lay in the void ſpaces of their combs; it taſts bitter, it is made of ſpring dew, the juice of trees, and ſometimes of gum. That of *Africa* ſmels little; that from the South parts is blacker; from the North is better and redder; there is much from the *Grecian* Nut-trees. *Menecrates* ſaith it is a flower, that ſhewes the future harveſt. *Plin.* *Varro* ſaith, it is not meat, but glew, whereby the Bees faſten their combs at the ends together. It forcibly calls forth the ſwarms: where they would have the ſwarms light, they anoint a bough with Erithaw, or any other place, adding balm. *Virgil*, I think, following *Varro*, calls it glew. *Mytis*, *commoſis*, (*Stephanus* calls it κόνυος) and *Piſſoceros*, cures ſtrokes and ulcers. *Ariſtotle*. What uſe it hath in the hives, we ſaid enough before.

CHAP. VII.

Of Drones and Theeves.

THE Drone called in Latine, *Fucus*, is called in Greek, κηφὴν and θρώναξ, in the Illyrian tongue, Czerw; in Engliſh, a *Drone*, a *Dran*; in High Dutch, *Traen*; Low Dutch, *Belonder ſtrael*; in Spaniſh, *Zangano*; in Italian, *Ape che non fa mele*; In French, *Bourdon*, and *Fullon*; in the Hungarian tongue, *Here*; in the Polonian, *Czezew*. The word *Fucus*, a Drone, is derived as ſome think from *fur*, which ſignifies a thief, becauſe privily and by ſtealth he makes prey upon the honey: although with more probability the word *fucus* may be ſo uſed, becauſe he doth cheat and couſen the Bees, and under colour of keeping the Hives warm, (which is his office to do) he ranſacks the combs. And for that reaſon, ſome with too much confidence, perhaps, derive the Latine word *fucus* from the Greek word φαγῦω, ſignifying to eat or devour; others will have it come *à fovendo*, in regard of their ſitting upon, and nurſing up the young ſwarm.

The deſcription of the Drone.

Some make the Drone to be a fourth ſort of Bees, but not ſo well as others think, becauſe he neither gathers honey himſelf, nor doth any way help in the working or making of it up. He is almoſt twice as big as the ordinary Bee, and ſomewhat bigger alſo then the Thief; he is as big likewiſe as the King, and ſomewhat bigger. Although they do not arrive at this corpulency, by the diſpenſation of nature, but by their courſe of life that they take. For when the Bee doth ſet apart cells for the Drones to breed in, they make them leſſer then their own. And the little Schadowes or worms whereof they come are far leſſe than thoſe of the Bees (who are ſprung of the noble race, and of the ſtock of the Bees) in their firſt birth; which at length become a great deal bigger than the Bees, both by reaſon they never take any pains whereby to ſpend their natural ſuperfluities; and alſo in regard that they do nothing night and day but (like oxen at the ſtall) never leave glutting and gorging themſelves with honey, which afterwards they dearly pay for, when proviſion happens to be ſhort, and there fals out a dearth. They have a bright ſhining colour, but mixt with more black than that of the Bees, in bulk they exceed them all, but yet without ſting and idle. They both breed and live amongſt the Bees, and when they go abroad, they preſently ſpread all abroad aloft in the air, as if driven by violence, where for a while they beſtir themſelves, and afterwards return to the Hives with good ſtomachs, falling greedily to the honey. But why the Drone ſhould equalize the chief Bees in bigneſs, and the Bees alſo in having ſtings as well as they; let us hear *Ariſtotles* reaſon. *Nature did deſire*, ſaith he, *to put a difference between them, that they ſhould not be all of one kinde, which is impoſſible; for ſo the whole Stock would be either Kings or Drones. The Bees therefore are like unto the Kings or Maſter-Bees in ſtrength, and in the faculty of generation; and the Drones only in bulk or bigneſſe of body, to whom if you ſhould give a ſting alſo, they would be nothing inferiour to the Kings themſelves*, l. 3. de gen. Animal. c. 10.

Μεγέθει δὲ μέγιστος πάντων, ἄκεντρος δὲ καὶ νωθής. Ariſt. l. 5. c. 22.

They are called alſo of the Greeks κόθουροι, becauſe they hide their ſtings. From hence *Heſiod.* hath theſe words, ὅς κεν ἀεργὸς, Ζώῃ κηφήνεσσι κοθούροις εἴκελος ὁρμήν, who lives idly, having ſtrength like the Drone that never ſheweth his ſting; certainly either they have no ſting, or never uſe it to revenge themſelves withall. *Pliny* ſaith plainly they have none, and terms them no other then in a manner imperfect Bees, and therefore *Virgil* calleth them *ignavum pecus*, a ſluggiſh kinde of creature.

Suidas calls them κοθούρους παρὰ τὸ κεύθειν τὴν ἑαυτῶν οὐρὰν, from hiding their ſting. *Columella*, a ſort of creatures of a greater growth, very like the Bees, and accordingly he placeth them in the rank of herding or ſwarming creatures. They ſuffer egregiouſly of the whole ſwarm many times, not only for their ſloth and rapacity; but for that wanting a ſting they ſeem effeminate, and not able to make any oppoſition. *Plin. l.* 11. *c.* 17. deſcribeth them thus: *The Drone is an imperfect Bee without a ſting; and begotten then after all when the Bee is decayed with labour, not being able to labour any longer.* Like as men paſt their labour, and ſtricken in age, beget of women when they have well-nigh left teeming through age and weakneſs, feeble children, uncapable of procreation, little better then eunuchs: ſo it may not ſeem ſtrange, how theſe Drones are too weak and impotent, being begotten of the Bees when they are exhauſted with age and labour, inſomuch that they are fit neither to propagate their one ſpecies, nor to take pains as the other do. Which is the reaſon why the Bees ſo lord it over them, for they put them firſt forth to work, & if they loyter, they puniſh them without mercy. For in the moneth of *June*, two or three (eſpecially the younger fry) drag out one Drone by himſelf alone, buffet him with their wings, gore him with their ſtings, if he reſiſt them, they caſt him down from the form upon the ground, and at length when they have made him weary of his life for anguiſh, they make an end of him and kill him; this I beheld with mine eyes, not without exceeding admiration and delight. Sometimes the Drones being baniſht from the Hive, are fain to remain without doors, not daring to enter. Now for three reaſons eſpecially thereunto moving, the Bees do ſhut out the Drones: either when their number is above meaſure increaſed; or when there is not room enough left for the Bees to work in, or elſe when their honey fails, and they are ſtraightned for want of proviſion.

And as they bear a deadly hatred againſt the Drones, ſo neither will they hurt any man if with his naked hands he ſhall take the Drones and caſt them forth, no although they be in ſight.

Κεντρωτῷ θυμῷ. Ariſt. l. 9. hiſt. c. 40.

The Drones, if the King be alive, (as ſome affirm) are begotten in a place by themſelves. But if the King be dead, they are begotten of the Bees in their cells, and thoſe are a great deal luſtier than the other, in which regard, they are ſaid to have a ſting in their ſouls, although they are allowed none in their bodies by nature. Thus *Ælian. lib.* 1. *de Animal. Hiſt. c.* 10. The Drone which is bred amongſt the Bees, lies hid all day between the honey cells; but in the night when he obſerves that the Bees are gone to their reſt and are faſt aſleep, he ſets upon their works and preys upon their Hives. This aſſoon as they underſtand (for that moſt of the Bees being weary with labour fall aſleep, and ſome few watch) when they eſpy the thief, they moderately and gently chaſtiſe him, crop his wings, thruſt him out from thence and baniſh him. But not content with this puniſhment, whereby to amend his fault, being naturally poſſeſt with two ill qualities, idleneſs and luxury, he hides himſelf amongſt the combs. But aſſoon as the Bees are gone forth to paſture, preſently he falls upon the works, doth as much as in him lies, gluts himſelf with honey, and utterly ranſacks the ſweet treaſury of the Bees. They coming home again from feeding, as ſoon as they meet with him, no more favour him as before, with eaſie ſtripes, or as if they were about only to baniſh him again, but ſetting upon him with their ſtings they wound the felon, and no more ſatisfie themſelves with chiding of him, but then he payes for his voracity and gluttony with no leſſe than his life. This the Bee-maſters ſay and perſwade me that it is true.

Their Generation.

Drones come forth without a King, the Bees never. For they alwaies deſcend from Kings. There are that affirm, that the young Drones are brought thither from other places from the flowers of honey-ſuckles, or of the olive or reed: But this opinion is infirm, and doth not ſtand with reaſon. *Ariſtotle* affirms that the great ſtore both of Drones and Theeves are ſprung of the longer and ſlender kinde of Bees, which doubtleſſe he was informed of by the ancient Philoſophers, or by Bee-keepers, and Honey-maſters of his time. Some likewiſe ſay they are ingendred of putrefaction; as of Mules, ſo *Iſidore*; of Aſſes, ſo *Cardane*; of Horſes, ſo *Plutarch* and *Servius*. Others will have them to be the iſſue of Bees by a certain degeneration, when they have loſt their ſtings, for then they become Drones, nor are obſerved to gather any honey, and being as it were gelt of their natural ſtrength, they neither do harm or good. Others on the contrary ſay, that the Bees are bred of the Drones, becauſe long experience hath taught, that as the number of Drones aboundeth, by ſo much every year is the number of the Swarms greater. But that in my apprehenſion is rather a feigned than a ſolid reaſon: for therefore are there not (as ſome ſeaſonable years it comes to paſſe) more Swarmes of Bees, becauſe more Drones are bred; but rather on the contrary, becauſe the increaſe of Bees is more in regard of the clemency of the heavens, and the plenty of mellifluous dews, ſo from the abundance of ſuperfluous moiſture proceed the greater ſtore of Drones; as the Philoſopher hath well collected. Or if we grant them this, that the more the Drones are every year, ſo the more Bees; yet nothſtanding we ought not to conclude from thence, that the Bees ſhould derive their original of being to the Drones, but rather are beholding and indebted to them for their conſervation, whileſt they at the time of ſitting and incubation, by their company do much further the procreation of the Bees; the throng of them (to uſe the words of *Pliny*) exceedingly encreaſing the vegetative heat, by which they are ſooner hatched up.

Plin. l. 11. *c.* 11.

There are that divide the Drones into Male and Female, and will have them to propagate their ſpecies by way of copulation, although (as *Athenæus* writes) neither Drone nor Bee were ever ſeen to couple together. Yet foraſmuch as Waſps and Bumble Bees, and all other Hive-born Inſects, are ſeen ſometime (though very ſeldome) to couple: I ſee no reaſon why the modeſty of the Bee and of the Drone, whereby they abandon publick ſcortation and venery, ſhould debar them of the private uſe of copulation. For they, as the chaſter ſort of men are wont, do it privately, and do naturally deteſt the impudence of thoſe that publickly proſtitute themſelves in the day time, and when all eyes are upon them.

We have told you before in the generation of Bees, that ſome would make the Bees the male, and the Drones the female.

But when as (about the time of making their honey) they do ſo ſharply puniſh them after they have caſt them out of their Hives, and kill them (ſuch violence which if uſed to their mothers, would much blemiſh the virtues of the Bees) I ſcarſe think they are females.

Ἀσυντελὴς, ἀτελὴς, ἀεργὸς, ἄχρηστος, ἀλειτούργητος, ἀσύμβολος, μηδὲν εἰς τὴν κοινὴν συμφέρων, as the Greeks very many of them have written.

Of what uſe then are they of in the Hives? is the Drone altogether unprofitable, good for nothing, idle, without ſting, fit for no ſervice, no way helpful to the publick? More than that, *Virgil* himſelf chants it to that effect:

Immuniſq; ſedens aliena ad pabula fucus.

The Drone ſits free feeding on others food.

Where *Feſtus* takes the word in that ſenſe for a ſlothful, idle, unprofitable creature, void of all imployment, unleſſe it be that of theeves and robbers, who take ſuch a courſe that either they will live by the ſweat of other mens browes, or elſe they will diſturb the whole Kingdom. Such like *Heſiod* makes women to be, when he compares them to Drones.

Οἱ δ' ἔντοσθε μένοντες ἐπηρεφέας κατὰ σίμβλους
Ἀλλότριον κάματον σφετέρην εἰς γαστέρ' ἀμῶνται.

Which is, I interpret it in Latine thus:

Qui ſegnes reſident contectis ædibus, atq;
Sudorem alterius proprium furantur in alvum.

Or, in Engliſh thus:

Who ſit at home, and to work have no will,
With others ſweat they do their bellies fill.

But more creditable Authors propound divers uſes of Drones: for if there be but a few of them amongſt the Bees, they make them more diligent and careful in their buſineſſe, not by their example, (for they live perpetually idle) but becauſe they take the more pains in making honey, that they may be able to continue their liberality to ſtrangers. They diſcover alſo ſigns whereby to know when the honey is come to maturity: for when they have perfected their honey,

ney, then they kill them in abundance, leſt they ſhould (as their cuſtome is) rob them of it in the night; for as *Ælian* ſaith, the Drone all the day lies quietly in the honey cells, but in the night when he perceives that the Bees are in their dead ſleep, he ſets upon their works and deſtroies their combs.

l. de Animal. 1. c. 10.

But yet (if *Bartholomæus* deceive us not) they are not unbuſied neither; but they build houſes for the Kings, large and magnificent in the top and middle part of the Hive very finely covered over. They are therefore idle (to ſay ſay with *Ariſtotle*) in regard of making honey or gathering dew; but in regard of their Architecture ſo they are workmen. For as the Bees make the combs of the Drones hard by the Kings Court, ſo under the ſame conſideration the Drones build the Kings houſes, which is the reaſon why they and their young ones (if they have any) are ſuſtained by the Bees. The cells of the Drones now grown up according to the bulk of their bodies are larger, but their combs leſſe, for the Bees built theſe, but thoſe the made themſelves; becauſe it is not fitting that the ſame proportion of food ſhould be allowed to hindes and hired ſervants, as to the children or maſters of the family.

* Ἀπεργοί.

Tzetzes in his elegant Poem, and other of the Greek Poets, make them to be the Bees cellarmen, or water-bearers, and do aſſign unto them a moſt kindly heat whereby they are ſaid to hatch the young Bees and make them thrive. In like manner *Columella*: the Drones do very much help to breed the young Bees, by ſitting upon thoſe ſeeds out of which they are made. And therefore they are more familiarly admitted to the nurſery to bring up and cheriſh the young brood, which when they have done, afterwards they are thruſt out of doors. And *Pliny* alſo in his 11. Book. They do not aſſiſt the Bees in their Architecture only, but alſo in cheriſhing their young, the multitude of them cauſing heat and warmth, the which the greater it is (unleſſe the honey chance to fail in the mean time) the more the ſwarmes of Bees are increaſed. To conclude, unleſſe they had been for ſome great uſe for the Bees, Almighty God had never houſed them under one roof, nor made them, as it were, free Deniſons of the ſame City. Neither would the Bees lay hands on them at all as enemies of the State, but when their ſervile multitude doth increaſe and they take up offenſive arms, or ſcarcity of proviſion were to be ſuddenly expected: in which tempeſt of affairs who would not rather judge that the Carpenter ſhould be diſmiſſed than the Ploughman? eſpecially when without him by reaſon of want of victuals, we may hazard our lives, but the other we may be without for a time, without prejudice to our lives, and our ſelves (if need requires) are able to build habitations every one for himſelf. Now as theſe, being but a competent number of them, are very profitable to the Bees, ſo if they be over many, *Plato* not without cauſe terms them *morbum alvearium*, the Peſt or Plague of the Hive, in the 8. book of the Common-wealth (where you may ſee a moſt elegant compariſon between *Acolaſtus* and the Drone) both becauſe they waſte the proviſion of the labouring Bees, as alſo with their too much heat ſtifle them. This inconvenience the Author of the *Geoponicks* doth thus remedy; take the covers of the Hives and ſprinkle them on the inſide over night with water, and you ſhall finde them betimes in the morning when you take off the cover of the Hives again all over covered with the Drones; for when their bellies are full of honey, they are very thirſty, and are mightily perplext with an intolerable deſire of water; ſo that they cling faſt to the lid of the Hive; and it is an eaſie matter to put them all to death, or if you will rather to take away the greateſt part of them. But if you take away the young ones and all, that are not yet come to have wings, and pluck off their heads, caſting the bodies in again to the other Bees, you ſhall offer to them a very dainty diſh.

Chil. 8. Hiſt. 2:7.

Plat. l. 8. de Repub.

Moreover alſo if you ſhall take the Drone and crop off his wings and caſt it back into the Hive, he will if we may credit *Pliny*, pull off all the wings of the reſt, *lib. 21. c. 11.* or rather the Bees themſelves will devour the wings of the reſt of the Drones that are left. For ſo ſaith *Ariſtot.* κἂν κηφῆνος τὸ πτερὸν ἀποτίλας ἀφῇ τις, τῶν λοιπῶν αὐταὶ τὰ πτερὰ ἀπεσθίουσι. For it is not probable that either the Bees ſhould crop one the others wings; or that the Drones ſhould ſo far adventure, or be able to offer ſuch violence to the Bees: ſo that as *Pliny* was miſtaken in reading αὐτὸς for αὐταὶ, ſo alſo they do not a little ſpeak by gueſſe, who refer the words τῶν λοιπῶν, *the reſt*, to the Bees and not to the Drones.

But what the dreaming of Drones doth portend, what uſe they may be of in the way of Hieroglyphicks: let *Apomaſaris* out of the Schools of the *Perſians* and *Ægyptians* declare. It ſhall abundantly ſatisfie for what we intended to ſpeak of them, to ſhew their true uſe, true nature, generation, degeneration, deſcription and name. But as for what belongs to Emblemes and Hieroglyphicks, and precepts for Manners; every mean capacity may furniſh himſelf with a world of ſuch like rules by obſerving their courſe of life; without any need of conſulting with thoſe abſtruſe *Ægyptian* Prieſts.

The Theeves are thought to be amongſt the Bees of a kinde by themſelves that are very big, and black, bigger in belly than the profitable Bee, and leſſer than the Drone. So called becauſe they devour the honey by ſtealth. Bees admit of the Drone into their company, and are glad of it as being helpful to them, for their benefit ſometimes. But the Theeves being naturally odious to the Bees, ſteal upon their labours when they are abſent, waſting and ſpoyling their proviſion of honey. Yea they do ſo glut themſelves in the mean while, that they are not able many times to get out again they are ſo full, or to ſtand in their own defence; whereupon the Bees at their return without any more adoe, ſeverely puniſh them, and according to their juſt demerits kill

Ariſt. l. 9. c. 25. Plin. l. 11. c. 17 *Ariſtotle* calls *fur* φώρ, *Heſychius* φωρεὺς, and from thence I think the Latine name was derived.

kill them outright. Neither do they eat up the Bees food, but alſo privily lay their young in their cells, whereby it comes to paſſe oftentimes, that the increaſe of the Drones and Theeves is no leſſe than that of the true legitimate Bees. Now theſe neither gather honey, nor build houſes, nor take any pains, as the other Bees do, for which cauſe they have watchmen which obſerve at night when they come home, and they defend and ſecure them from the Theeves, and if they ſpie a Thief come in, they ſet upon him and beat him, throw him out of doors and there leave him for dead or half dead at leaſt. For ſo it happens, that the thief having filled himſelf with honey is not able to fly away, but tumbles up and down at the door of the Hive, till they that go out and in finde him, and having branded him with ignominy and ſcorn, deprive him of his life.

Their Uſe.

Ariſtotle doth not tell us of any office that the Thief is good for: but I think that he was made for this end, namely, that he might put an edge to the courage of the Bees in point of injuries offered them, and that they might be ſtirred up to more vigilancy and juſtice: for what uſe elſe do Theeves ſerve for in a Chriſtian Common-wealth, who with incredible fraud lie in wait for the credit and eſtates of their neighbours.

Chap. VIII.

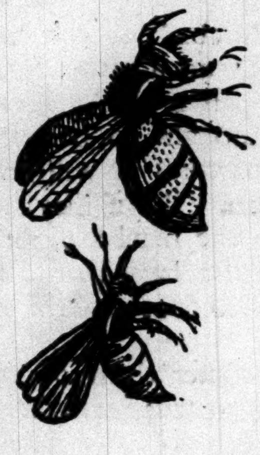
Of Waſps.

THE Waſp is called in Hebrew, *Tſirgna*; in Chaldee, *Deibrane*; in Syriack, *Gnargnitha*; in Arabick, *Zamber*; in Engliſh, a *Waſp*; in Dutch, *Harſell*; in Italian, *Veſpa*, *Vreſpa*, *Moſcone*; in French, *Gueſpe*; in Spaniſh, *Veſpa* and *Abilpa*; Gothiſh, *Boolgetingh*; in Slavonick, *Wols*; Illyrick, *Oſa*; Hungarick, *Daras*; in Latine, *Veſpa*.

They are called *Veſpa*, as *Calepine* notes, for that in the evening they ſeek about for flies to feed on.

The Greeks alſo have ſeveral names for them; commonly they are called σφῆκες, *Euſtathius* derives σφῆκα ἀπὸ τῆς διασφαγῆς, becauſe you may perceive them ſo divided in the middle that they ſeem to gape, as you may obſerve in the figure ſet down. The Scholiaſt of *Nicander* calls them λευκοασπίδες; of *Suidas*, σίφλους, and σίλαθες; *Heſychius* termes them ἀνθεῆλαι and πανδάκρες; *Gaza* (but abuſively) ἀνθρήνας, for they ought to be called rather *Crabrones*.

Deſcription.



Now the Waſp is a winged Inſect, gregal or hearding round like a ring, long, having four wings (of which the two former are the bigger) having a ſting within, ſix footed, they have no bloud, they are of a yellow golden colour upon black ſpots placed triangularly, the whole body is garniſhed with divers colours athwart, whence it may be *Pollio* called it διάχρυσος.

I think they all in general are armed with ſtings, (what ever Authors write that their Females are without ſtings) becauſe when I was at *Ham*, a village town in the Weſt, about the year 1587. having found an entire Waſps neſt, I poured hot water upon all the females and killed them, and yet could finde none that had not a ſting, either within their bodies, or ſticking out.

Ariſtoph. in Veſpis.

The body of the Waſp is bound in the middle to the breaſt with a certain exceeding thin thred, that they ſeem to have no loins at all, and to be quite through open: whereupon that Greek Comick Poet calls thoſe *Maids*, (which *Terence* by way of elegance calls *Bulruſhes*) for their ſlenderneſſe in the waſte σφηκώδεις, waſpy or like Waſps. They make a buzzing noiſe alſo like the Bee, but more loud and hoarſe, eſpecially when they are angry; upon which came that proverb made by *Theocritus* in *Hodaporis*, in compariſon of a bawling idiot, to a man of learning and parts, σφὴξ βομβῶν τέττιγος ἐναντίον, i. e. *The buzzing Waſp againſt the Graſhopper.*

The gifts of his minde and wit.

If you will have the endowments of his minde deſcribed, he is a political and flocking or gregal creature, ſubject to Monarchy, laborious, a lover of his young, and a lover of his neighbour, of a very quarrelſome diſpoſition, and very prone to choler. It is a ſign that their life is Political, becauſe they live not ſolitary, but do build themſelves a city eminent for ſtructure, in which they are ſubject to their ſet lawes, and do yeeld to them as wel in their external actions, as in affections. Whereupon he Philoſopher doth rightly reckon them in the number of the Civil or Political ſort of Inſects. They are governed alſo by Kingly power, not tyranny (as *Ælian* ſaith) although by nature very fierce; making his Argument, becauſe Captains of the Waſps want ſtings, or if they have any, they never put them forth or ſtrike with them. And although they be twice as big and hard above all the reſt, yet are they not without gentleneſſe, and grateful demeanour, with which alſo ſometimes they reſtrain, and appeaſe their rebellious and mutinous ſubjects.

Lib. 1. hiſt. c. 1.

Love to one another.

[illegible]

But of their mutual love one towards another, every man is able to give a teſtimony; whoſoever he be that ſhall offer injury to any one of them near home, for with his buzzing and making a noyſe, all the ſwarm being terrified iſſue out to the ſuccour of their neighbour; and will cauſe the troubleſome ſtranger, although armed, to run away (as they did the *Phaſelites* of old) of whom *Ælian* reports that by the multitude and fierceneſſe of the Waſps they were quite beaten out of the City.

Love to their young.

As for unnaturalneſſe toward their young, that it is a vice which is very far from their diſpoſition and nature, as many things do evince, ſo that above all, that with more than Heroick undauntedneſſe of courage, they ſet upon thoſe that would ſurprize them; neither do they ſtand in fear of either *Neoptolemus*, or *Hector*, or *Achilles*, or *Agamemnon*, the General of all the *Grecian* Forces, yea that divine Poet *Homer* in the 13. of his *Iliads*, when he would expreſſe the generous ſpirits of the *Grecian* Commanders, he compares them to a ſpeckled Waſp, and endowed with the Waſps animoſity and ſtout heartedneſſe, when they are put upon it to fight for their houſe and family. They do moreover erect for their children large ſtructures, (and as it were like thoſe *Mauſolea* of the *Ægyptians*) of a round form, floored, and ſtanding one on the top of the other. One of theſe fabricks moſt curiouſly built, was brought to *Pierius* when he was at *Belunum* out of a certain ſolitary grove. There were ſeven ſtories of building ſet one on the top of the other two fingers ſpace between each of them, disjoyned by the putting of certain columns or pillars between them, that there might be a convenient ſpace left to paſſe in and out of their lodgings. The diameter of the orbs up to the fifth ſtory about twelve fingers over, all the other from the fifth are narrowed up to the top by degrees, ſo that the laſt is about five or ſix fingers broad. The greater round contains the firſt room, faſtned to the bough of an old tree, very well fenced above with a certain rough-caſt to keep off all wind and weather. Within are ſix ſquare cells ſtanding very thick together; but the middle concamerations the multitude of Waſps had filled, a very thin leaf being laid over every hole for a covering, ſome of which when *Pierius* had taken away he obſerved all thoſe chambers to be full of Waſps creeping with their heads to the bottome of them. Thoſe in the rooms below were certain imperfect things like Embryons or little worms, which were covered over with the ſame covering, as it were a winter Oiſter, in expectation of the more milde ſeaſon of the ſpring. Which building although there ſucceeded a very ſharp winter did remain entire, and no way decayed; at length *Pierius* expecting what ſhould be done with theſe little worms when the Spring came, he perceived nature to make no further progreſſe in her work with them.

Σφηκιέσσιν αἰόλοις κραδίην ϗ θυμὸν ἔχοντες. *Iliad.* 13.

But ſtill the fabrick was kept by him, not without the great admiration of thoſe that ſaw it, wondering much to ſee ſo much art and cunning in thoſe little creatures, and that they were able to hold out to finiſh ſuch an elaborate edifice. This relates *Pierius*. I alſo have ſeen many ſuch, but of a different faſhion, ſome like a Harp, ſome like a Cup, ſome like a Pear, ſome like a Toadſtool, ſome like a Bottle.

The matter of their Combs is ſaid to be confuſed, heaped up together, like bark or cobwebs, tranſparent, gummy, and made into very thin plates like leaf-gold; but I found it alwaies light like paper, dry, eaſily puſt hither and thither by the wind, and for the moſt part growing up from the bottom like a Turban. As for the place where they uſe to build, it is thought to be divers. If their chieftain be dead, they make their neſts aloft in the hollow places of trees or walls, and in theſe as ſome affirm (though I never could finde any) they make wax alſo. But if they have their maſter Waſp, they build under ground in ſix ſquare cells according to the number of their feet, and after the faſhion of the Bees. Their combs are made in the form of a large Toadſtool, round, out of which there comes out in the middle or center as it were a little foot by which the cell is faſtened to the tree, or to the earth, or to another cell.

Love to their wives or females.

But ſo tender are they over their mates or females, that they will neither ſuffer them to take any pains, nor to ſeek after any proviſion; but they themſelves bring in all neceſſaries to them, and do as it were enjoyn them to keep at home.

All which things, and each particular being conſidered by any man, he muſt needs confeſſe the pain, induſtry, cunning, ſweat and labour of the Waſp. As for their choler and frowardneſſe of the Waſp, not only poultrey that ſcrape in their neſts and trouble them, but in like manner all that provoke them do know them to be implacable: from whence aroſe the proverb σφηκίαν ἐρεθίζειν, *i. e. to contend with a Waſps neſt.* Of which ſort ſomething to that purpoſe was written on the Tomb of *Hippocrates*, μὴ πως ἐγείρῃς σφῆκα τὸν κοιμώμενον, *i. e. Do not rouſe a ſleeping Waſp.* And ſo *Ariſtophanes* in *Veſpis*, when he would expreſſe a cruel, moroſe, fretful, quarrelſome ſort of people, calls them *Waſpiſh*, δυςζωπουμένους. *Clem. Alexandrinus* alſo, when he would ſet forth the acerbity and bitterneſs of thoſe vices that lye in wait for the ſouls of men, ſaith, ὅυτοι γὰρ ἀνταγωνισταὶ παχεῖς ϗ ὀλυμπικοὶ, ϗ μάλιστα ἡδονὴ, *i. e. theſe, eſpecially pleaſure, are ſturdy Olympick Antagoniſts, and more tart than Waſps.* To which may be added a certain ſpeech of *Themiſtius* diſcourſing of the ſpeeches of many malevolous adverſaries, ἠρέθου (ſaith he) ἐπ᾽ ἐμαυτῷ οἷον ἑσμὸν τινὰ σφήκων χαλεπαινομένων: *they railed upon me as it had been a ſwarm of ſtinging Waſps.* Which oftentimes proves mortall, as *Phrynichus* knew by experience from the *Mileſians*, and the *Phaſelites* were ſufficiently inſtructed by their own great miſeries: yea, whoſoever he be that ſhall challenge this generous and redoubted Champion into the field (to uſe *Nicander*'s words) ſhall obtain but *Cadmus* conqueſt, he ſhall ſurely be worſted and ſlain; for they do not fight ſo much with their ſtings as with the ſtrength of their bodies, and more than that, when they fight they will never give over, being not only ſtrong but reſolute,

Strom. 2.

Notwithſtanding they differ in their original, kinde, ſex, age, place, diet, and labour. Their difference from others.

Iſidore affirms that Waſps come out of the putrefied carkaſſes of Aſſes, although he may be miſtaken, for all agree that the *Scarabees* are procreated from them: rather am I of opinion with *Pliny l. 11. c. 20.* and the Greek Authors, that they are ſprung from the dead bodies of Horſes, for a horſe is a valiant and warlike creature, hence is that verſe frequently and commonly uſed amongſt the Greeks.

Ἵπποι μὲν σφηκῶν γένεσις, ταῦροι δὲ μελισσῶν.
Waſps come of Horſes, Bees from Bulls are bred.

And indeed their more then ordinary ſwiftneſſe and their eagerneſſe in fight, are ſufficient arguments that they can take their original from no other creature (much leſſe from an Aſſe, Hart, or Oxe) ſince that Nature never granted to any creatures elſe, to excell both in ſwiftneſs and valour. And ſurely that I may give another ſenſe of that Proverb of *Ariſtotle*, Χαίρετ' ἀελλοπόδων θύγατρες ἵππων, *Hail the daughters of the wing-footed ſteed*: this would I ſuppoſe fit to be ſpoken in way of jeſt and ſcorn to ſcolding women, which do imitate the haſtineſs and froward diſpoſition of the Waſp. Other ſorts of them are produced out of the putrid corps of the Crocodiles, if *Horus* and the *Ægyptians* be to be believed, for which reaſon when they mean a Waſp, they ſet it forth by an Horſe or Crocodile. *Nicander* gives them the name λυκοσπάδας, becauſe they ſometimes come from the dead carkaſſes of Wolves. *Bellenacenſis* & *Vincentius* ſay, that Waſps come out of the putrefaction of an old Deers head, flying ſometimes out at the eyes, ſometimes out of the noſtrils. From hence *Cardan* ſeems to have collected this obſervation, that out of the corruption of every creature, there is another ſort produced; which would be very abſurd; For by this means Generation would be infinite, and likewiſe daily experience doth teach the contrary. For that little beaſt which I term *Tatinum Alberti*, doth naturally produce nothing at all, as I have tryed a thouſand times. There are thoſe alſo that affirm that Waſps are begotten of the earth and rottenneſs of ſome kinde of fruits; as *Albertus* and the *Arabick* Scholiaſt: but for the moſt part they are begotten by copulation, and the mutual embraces of the male and female; which although *Athenæus l. 8. dipnoſ.* eſteems as fabulous, yet when as the Philoſopher affirms that he ſaw it with his eyes (as *l. 1. de gen. anim. c. 16. & 9. Hiſt. c. 41.* it is evident) I am wholly of his opinion, and do give full ſuffrage to his aſſertion. But how after copulation, they grow and come to maturity, we may know of *Ariſt. Hiſt. 9. c. 41.* and *Pliny* his Interpreter. *The maſter Waſps, when they have choſen them a convenient place under ground, in the chinks of walls, or (which I have often ſeen) in the thatch of houſes; in the beginning of ſummer they make their neſts, and they contrive their little neſts or cells (which the Greeks call* σφηκωνεῖς*) with 4 doors or paſſages, in which are begotten worms only, not Waſps, which when they are grown up, then they make larger cells, and when they come to have young ones, then they make more ſtill, ſo that at the latter end of Autumn, you have many and large neſts builded; in which the chieftain or maſter Waſp (which is called the Matrix) procreates no more Waſps, but thoſe of his own ſex; which alſo are begotten aloft in the uppermoſt part of the neſt, in the likeneſs of worms, but far bigger than the other, in four or more cells continued, or joyned one to another, otherwiſe there would be no difference in their breeding, between the Maſter or nobler ſort, and the ordinary Waſp. They let fall their ſperm as the Bee doth at the ſides of the cells of the comb, and ſhove them cloſe to the walls or outmoſt part. It is not all alike in all cells, nor of equal bigneſs, but in ſome unequall and ſtrange (ſaith* Pliny*). In ſome ſo big that they are able to fly: in others only Nymphs, covered with a thin membrane like an Aurelia: ſome alſo have them yet in the worm. The Worms only have excretion in like manner as the Bees have. Their ſperm or ſpawn doth not ſtir at all whiles it is in the Nymph, and is covered with a membrane. In the ſame time of the year, and the ſame very day you ſhall obſerve them to be of unequal growth, one flies abroad, another is only a Nymph; one is able to role or tumble, another not able to ſtir, a third is a little worm. All theſe things happen in the Autumn, not in the Spring. They moſt increaſe at the time of the full Moon.* Here then is to be noted, that the Waſps have no ſwarms, and that all the Summer they are governed by their Maſters or male Waſps, but in the Winter by their females. Afterwards the multitude of their iſſue being renewed, the government ſuch as it is, of ſhort continuance and weak, however, upheld with moſt juſt lawes, returns to the males. But yet notwithſtanding their young ſeems not to be brought forth by way of Birth, ſaith *Ariſt.* becauſe it preſently becomes bigger than a Waſp ſhould be able to bring forth. A very ſterile and empty conceit of ſo renowned a Philoſopher. For what ſhould hinder that Nature ſhould not be able as quickly to perfect and increaſe that which is produced by a legitimate birth, as that which is generated of putrefaction? Let us but call to minde the young ones of fowles, which in a very ſhort time when they are once out of the ſhell, do get feathers on their backs; how ſoon do they go, feed, grow, and come to maturity? and then we ſhall eaſily ſee the weakneſs and improbability of the Philoſophers Argument. The Maſter Waſps are greatly increaſed in number, eſpecially if there were great ſtore of Waſps, and a wet year the year before. *Ariſtot.*

Lib. 2.

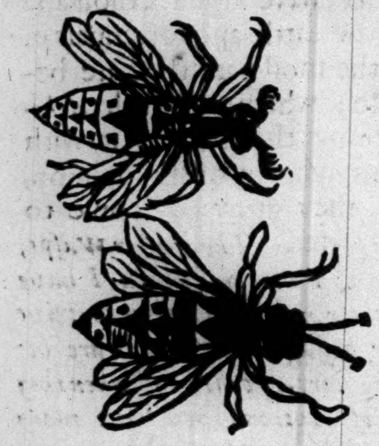
Albertus l. 15. tract. 1.

L. 11. c. 21.

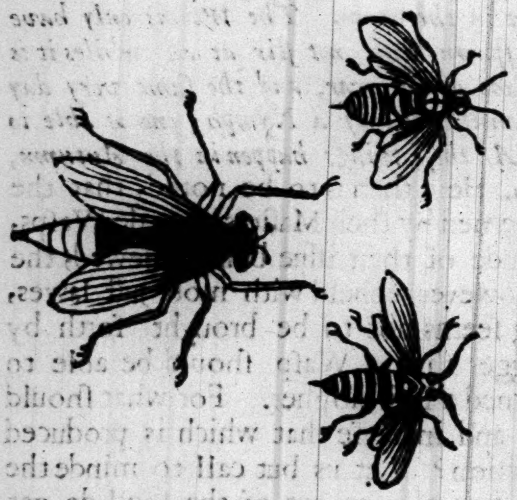
The Worms before they become Nymphs, *i.e.* young Waſps, are ſomewhat long, like thoſe that breed in fleſh (which *Hippocrates* calls ἶπας) and ſmall nuts, whitiſh, full of dints or wreathes, toward the tail thicker, with a blackiſh ſtreak all over the back, without feet, not creeping, but as it were tumbling up and down and moving themſelves from one place to another. When they have layed their young fry, they cover the cell with a kinde of a little thin skin as it were, which when they come to perfection they break, and two daies after fly about with wings. *Ariſtotle* mentions but two kindes of Waſps, one milde, the other fierce; the fierce kinde is very rare, and breed in mountains and woods, and breeds not under the ground, but in an oak, being greater, more ſtretched out, blacker, longer, having a ſtronger ſting, and ſtingeth more fiercely than the milder do, and is armed with a greater ſting than his body ſeems to be able to carry. *Ariſtotle* ſaith that they live till they be two years old, and when the tree is lopt, in the winter they are ſeen to fly away. They lye cloſe all the winter, and moſt commonly live in old walls or trees.

A ſort of theſe I found once in a wood in *Eſſex*, not without great peril of my life, at ſuch time as by chance I careleſly wandered here and there a ſimpling, with my friend *Penny* and one ſervant attending us. I would needs be prying into their neſt: with which they being offended, all the ſwarm fluſht out upon us with all the force they had, and but (as God would have it) we had carried in our hands ſome ſprigs of Broom, (with which we uſed to catch thoſe Inſects) for our ſafeguard and defence, we had payed for our folly, not only with the hazzard of ſafety but of our lives; for the followed us hard to the very middle of the wood, and a great while it was before they would leave purſuing us.

In the year 1582. on the top of *Chartmell* hills amongſt the ſtones I ſaw two ſorts of Waſps very eagerly fighting with one another, no difference there was but in bigneſs. The greater they ſtood upon their ſtrength, the leſs truſted in their faction and multitude; for ſix of the leſſer fought with one of the greater, not in the air, but in the graſſe. From whence I gather that the greater did uſe to rob the leſs of their honey or young ones, or perchance offer them ſome other injury. Long and ſharp was the fight, ſo that ſcarſe after two or three whole hours encounter, and the Sun very vehemently ſhining and ſcorching them, did they give over. For they are very hot upon revenge, and long ere they take up the quarrel: ſo boldly and furiouſly charging the enemy, that even *Mars* himſelf were not able to anſwer them, or match their valour; ſuch a ſtrong undaunted nature hath God inſtilled into them, and ſuch ſpritelike courage hath Nature planted in them. I once received from *Vienna* and *Hungary* two kindes of Waſps, ſuch as you ſee in the Figure, their backs were variouſly coloured with a ſhining yellow black colour, the one had rough horns, the other ſmooth; both of them almoſt three times as big as the ordinary ſort of Waſps.



The Waſps called *Ichneumones*, are leſs then the reſt: they kill Spiders called *Phalangia*, and after they have done they carry them into their neſts, and dawb them over with dirt, and ſo ſitting upon them do procreate their own ſpecies. *Ariſtot.* Therefore they are called *Ichneumones* ſaith *Niphus* from their ſpareneſs and ſlenderneſs. ἰχναὶ. This kinde of Waſp I make to be all one with that ſpoken of before, building her neſt in mud-walls, and ſuch like places; before the entry or going into her hole ſhe builds a porch of dirt, the length of it about the breadth of two fingers, which within is emplaiſtred over with ſmooth plaiſter of the ſame dirt. *Pſeudoſpheca* ſeemeth alſo to be a kinde of Waſp having no ſting, with a blackiſh head, having two cornicles or little ſhort horns, great eyes, black, ſtanding out of its head, a long forked mouth, a bulky breaſt ſtrutting out, to which on either ſide are three feet faſtened, the ſhoulders thick and bunching out, the body long, ſlender, conſiſting of many joynts, two dusky coloured wings, rough feet, and of the ſame colour with the wings. There is a kinde of Waſp called *Laerta*, becauſe it ſtings deadly, like the Piſmire ſo called. *Parnopes*, are a kinde of Waſp ſo called, which eateth grapes, (as *Ariſtophanes* relates) and ſerves for a prey to the Owls and Screetch-owls, as *Ælian* ſaith.



Of the Waſps as well wilde as tame, ſome have no ſting, (or at leaſt make uſe of none) others have; the leſſer and more feeble are thoſe that want, which neither are able to offend or defend. On the other ſide, they that have ſtings, are bigger, ſtronger, and able to fight. Theſe, ſome would have to be the Males, the other that have no ſting Females. Alſo very many of them that have ſtings are conceived to loſe them upon the approach of winter. But this as yet hath not been my chance to ſee (ſaith the Philoſopher). Hiſt. 9. c. 41. If you take a Waſp and hold him up and make him buz, thoſe that have not ſtings do preſently flock to him, which thoſe that have do not; which is the argument whereby ſome are to prove, the one to be male, the other female. Of both ſorts ſome are obſerved to couple together as the fly doth. Moreover, (according to their ſex) both kindes of them are divided into two ſorts, either they are maſter Waſps, or drudges and labouring Waſps; the one is greater and more gentle, the other leſs and more pettiſh. The drudge or labouring Waſp doth not live out a whole year, for in the midſt of winter they all die; which is known, becauſe ſo ſoon as winter comes they grow ſtupid, and in winter there are none to be ſeen: the others, that is to ſay, the Lady Waſps, are obſerved to hide themſelves all the winter long under ground. For divers men when they have gone to plow or dig in the winter, have ſeen them, though no man ever ſaw the other.

Now the Female Waſp is broader, weightier, thicker and bigger than the Male Waſp, and but ſlow of flight; for by reaſon of the weight of her body ſhe is not able to fly far; by which it comes to paſs that they for the moſt part ſit at home, making of a certain glutinous material which the labouring Waſps bring to them, combs and cells.

Their Age.

No man ever obſerved theſe creatures to live long, for the longeſt lived, which are the Matrices, female or lady Waſps, live not above two years at the moſt, the other die every Autumn. Now whether or no the Female Waſps of the former year, after they have brought forth another brood of maſter Waſps, die together with the young Waſps, or whether it alwaies fall out to be ſo, or whether or no they can poſſibly live any longer time, many Authors leave undetermined. But the wilde Waſp is accounted to be longer lived than the tame, the reaſon is becauſe thoſe making their neſts commonly by the highway ſide (from whence they are called ἐνόδιαι, by *Hom. i. e. Highway dwellers*) are neceſſarily expoſed to divers injuries, which haſten them to their death. And yet that little time that they live, is made up in the ſtrength of it. For if you take them oft at the head, and ſo again at the breaſt, they will continue a great while after, and putting forth their ſting, will as ſhrewdly hurt any man that ſhall touch them as if they never had been pulled in ſunder, or were alive as before. *Guillerinus* in his book of Shell-fiſh, writes very confidently that they put off their ſhells and renew their old age every year: certainly (unleſs he dreams waking what he would have to be) this muſt needs be diſcovered ſometime or other in their Neſts.

Their Food.

Apollonius cals them ὠμοβόρους, *Ariſtot. l.* 11. *c.* 53. μηλοβόρους, although they feed not on raw fleſh only and ripe Apples, but upon Pears, Pruines, Grapes, Flowers, and ſundry ſorts of fruits; alſo on the ſap of Elms, Sugar, Honey, and almoſt whatever.

They feed on fleſh of Serpents, and then they ſting mortally. They hunt after the greater Flyes, and ſpare not the harmleſſe Bees, who do ſo well deſerve of the Common-wealth of mankinde.

The place of Waſps.

According to the nature of the place they live in, they differ both in ſhape of body and diſpoſition of minde; the trivial and ordinary Waſp being accuſtomed to the company of men and cattel, do ſeem to be more milde of nature; but thoſe that live in woods and ſolitudes are more fierce; yea, inſomuch that *Nicander* in one word calls them ὀλοαί, *i. e. pernicioſas*, pernicious and deſtructive. There are alſo, as *Oviedus* affirms, in hotter Regions, thoſe that are more hurtful then others, as in the *Weſt-Indies*, whereas they differ from thoſe of theſe parts both in bigneſs and ſhape, ſo alſo in their venome. For ſo are they reported to be far more deadly then the *Engliſh*, *French*, yea or the *Spaniſh* or *Barbary* Waſps: ſuch as theſe alſo, *Olaus Magnus* in his 22 Book, ſaith, are very frequent in ſome very cold countreys.

The uſe of the Waſp.

The uſe or benefit of Waſps is obſerved to be divers; for beſides that they ſerve for food for Caſtrels, Martins, Swallowes, Owls, Badgers, Chameleons, they are alſo many waies profitable to men, for they kill *Phalangium* the moſt venomous kinde of Spider, and they themſelves are a plaiſter for their own ſtings. The *Pſeudoſphe* or wilde Waſp (eſpecially that which is taken in the beginning of that year) being taken into the left hand and there held faſt, *Pliny* commendeth for an excellent remedy againſt a Quartan Feaver, *l.* 30. *c.* 11. *Miraldus* attributes much vertue to the diſtilled water of common Waſps, or decocted, for raiſing of a tumor in the place that is waſht with it; applied to the belly it makes it ſwell as if it had the Dropſie, by which trick whores uſe to perſwade their ſweethearts that they are with childe by them; and by this way alſo they deceive many times very cunning and expert midwives. *Mirald. Memor. cent.* 7. from whence it may be concluded that their venome is exceeding hot and inflative.

The Fox alſo (a ſubtile creature) is ſaid to prey upon the Waſps, on this manner; he puts his tail into the Waſps neſt ſo long till it be all covered with Waſps, which he eſpying, pulls it out and beats them againſt the next ſtone or tree he meets withall till they be all dead, this being done again and again till all the Waſps be deſtroyed, he ſets upon their combs and devours them. *Ælian.*

But men purſue and deſtroy them with other cunning. As thus, in the mean time that the labouring or working Waſps flee to the Elm, which uſeth to be in the Solſtice or at Midſummer, to gather ſome gums material to work withall: the maſter Waſps remain in the Neſt and ſit upon their young, thoſe they ſmother with the ſtinking vapour of Sulphur, Garlick, Reed, or ſuch like; and throwing down their combs kill them with hunger. Now when they would preſerve their Bees from being ſurpriſed by the Waſps, they ſet by the Hives ſide a pot with ſome little pieces of fleſh in it: into which when the Waſps in hope of prey are entred, they ſuddenwhelm the lid of the pot upon them and kill them; or elſe putting hot water in at a hole ſcald them to death. Others hang a net before their Neſts over a ſmall Menow. Now the Waſps being drawn by a natural and ſtrange ſympathy to the Menow (for no food more takes them than that) they are preſently involved in the net, and ſo caught, and with caſting on hot water are killed. *Ælian.* As alſo they lightly ſpurt our of their mouthes oyl upon the grapes, fruits, ſugar, honey, &c. which cauſeth them either to fly away, or taſting the oyl, to die; ſometimes they mingle corroſives with honey (as Mercury ſublimed, Vitriol, Orpiment, &c.) which when they take, eats out their bowels, and ſo they pay well for their gluttony and intemperance.

Preſervatives againſt the ſtinging of Waſps.

Now if at any time by reaſon of the ſtinging of Waſps, there ariſe pain, perturbation, ſwelling, redneſs, heat, nauſeouſneſs, and thirſt; and not long after ſwouning (which happens when they have poyſoned their ſtings with feeding on venomous herbs, and Serpents fleſh) Phyſicians have found out a preſervative and remedy whereby to repell their ſtings and eaſily cure them. The virtue of Mallowes, and Marſh-mallowes is excellent againſt the ſtinging of Waſps. Thus the moſt ſoft and ſupple herb becomes a remedy againſt the moſt warlike and injurious creature, with whoſe juice and a little oyl mingled with it, and the part anointed, doth either mitigate the rage of the Waſp, or doth not ſuffer the ſting to enter, *Plin. l.* 22. *c.* 179. So *Avicen*, the Waſp, ſaith he, will not come near any man that is anointed with oyl and the juice of Mallowes; for as a ſoft anſwer appeaſeth wrath, and (as the Greeks uſe to ſay) ἡδὺς μίλιχσὸν ἐςιν ὀργῆς φάρμακον λόγος, *i. e. A milde reply is the beſt allay to anger*: ſo alſo in phyſicks we ſee thoſe things that are moſt ſtiffe and unyeelding, to be reſiſted and beaten off with the moſt ſoft things, as the Iron with feathers, the Adamant with bloud, the ſting of Waſps, Hornets, Bees, with oyl and the juice of Mallowes. What is more ſoft than the *Silk-worm*? which yet *Aetius* affirmeth being beaten together with oyl and the party anointed with it, is a preſervative againſt the ſtinging of Waſps; the ſame doth the Locuſt and the herb Balm beaten together with oyl, if the Greeks may be credited. The ſtone *Garatides*, if it be the true, although dawbed over with honey, and born about, doth fray away all Flyes and Waſps whatſoever, as *Sylvaticus* out of *Albertus* doth conjecture. The like virtue doth *Matthiolus* aſcribe ſuperſtitiouſly, and too confidently, to the Iron that hath the figure of the ſhell-fiſh *Strombus* graven in it.

Tetrab. 4. *ſerm.* 1. *c.* 11.

The ſymptomes that follow upon the ſtinging of Waſps, are ſaid to be theſe; they ſuffer all alike as thoſe that are ſtung with Bees, to wit, ſmart, redneſs, ſwelling, but the pain is more grievous and of longer continuance, eſpecially if they chance to be ſtung by the citron coloured greater Waſps, in a ſinewy and tender place, for then followes the cramp, weakneſs of knees, ſwouning, and ſometimes death.

Remedies againſt the ſtings of Waſps.

Phyſicians have found out many remedies againſt the ſtingings of Waſps; we ſhall firſt ſpeak of thoſe we have tryed and which may challenge your acceptance, being confirmed by long experience. We finde that Waſps applyed to the wound they made do exceedingly help it, being perſwaded to uſe them by *Gilbert* an Engliſh man. It may be that not the Scorpion only hath this vertue, but the greateſt part of Inſects have it alſo, if we ſhould make trial diligently. But if any man be ſtung by venomed Waſps, (which is eaſily known by the wound of the part, by raving and ſwouning, and coldneſs of the extreme parts) then give antidotes againſt venome, and open the place with a knife, or rather lay on a cauſtick; when it is laid open and dilated, ſuck it forcibly, and taking ſome of the earth of the Waſps neſt, make a plaiſter with vinegar, and lay it on the ſore. Alſo a Cataplaſm made of Mallowes, Willows and Waſps combs helps wonderfully, as we proved by the counſel of *Halyabbas*. The North Engliſh men make a good plaiſter againſt the ſtinging of Waſps, of the earth of furnaces, vinegar and flyes heads; it is worth its weight in gold. Rub the place with juice of Citrals, and let the patient drink Marjoram-ſeed 2 drams: or take juice of Marjoram 2 ounces, bole Armoniack 2 drams, with juice of ſowre Grapes what may ſuffice; make a plaiſter. Another; anoint the place with the juice of Purſlain or Beets, or with ſweet Wine and oyl of Roſes, or Cowes bloud, alſo with ſeeds of wilde Cucumers bruiſed with Wine. *Galen*. Barley meal with Vinegar is good; milk of the Fig-tree dropt into the wound, Brine or ſea-water to foment the wound; give in drink 2 drams of the tender leaves of the Bay-tree in ſharp Wine, which alſo will do much good in a fomentation. Alſo drink the decoction of Marſh-mallowes with *Poſca*: apply Salt and Calves fat. Mallowes with *Poſca* is a principal remedy. *Dioſcorid. l.* 2. *c.* 42. *Aetius* joyns an earth named *Cimolia* to theſe, and Clay, and Oxe-dung, and *Seſamum*, and many other things with *Poſca*. Oyl of Bayes drawes out the poyſon of the ſting of a Waſp. Leaves of Marſh-mallowes bruiſed and rubbed on, cure the venome of Waſps. Drink a little meaſure of the juice of Rue or of Balm, with Wine: and the leaves eaten, and applyed with Salt and Honey, or boyled with Vinegar and Pitch, are very good. Water-mints, Roſemary, with Barley-meal and *Poſca*, juice of Ivy-leaves, Golden flower, and Owles bloud, are excellent againſt the ſtingings of Waſps. *Pliny l.* 32. *c.* 9. *Galen* praiſeth Water-mints and the ſeed of it drank, and Centaury, if at the ſame time you lay on Oxe dung for a plaiſter. *Lib. de ſimplicib. ad Paternianum. & lib. de Centaur. ad Papiam. A branch of the wilde Palm-tree, Endive root, and all wilde Betony*, laid on for a plaiſter, profit very much. Alſo drink wilde Betony 2 drams with Oxymel. Firſt, ſuck out the poyſon, then hold the part hurt in hot water for an hour, then ſteep it ſuddenly in Vinegar and fiſh Pickle, ſo the pain is preſently gone, and the ſwelling ſinks away, and the venome is pacified. One half dram of Marjoram ſeed applied ſtils the pain, or 3 pugils of dry Coriander ſeed, or cool juice drank.. *Avicenna*. Leaves of Nightſhade or Houſeleek laid on are good. Alſo bole Armoniack with Camphire and Vinegar. Nuts bruiſed with a little Vinegar and Caſtoreum: apply a honey comb, and preſently hold the part affected to the fire, or put hot aſhes under it, and the pain will ceaſe forthwith. It is good to lay on green Coriander, or oyl and aſhes mingled. *Rhaſis*. Savorey or Water-mints applied, and the ſeed of them drank, or the juice of the leſſer-Centory drank in Wine is excellent. So are the leaves of river *Baſil, Mercury*,

Mar-

Mandragoro with Vinegar. *Serapio.* A ſnow ball put to the fundament takes oft all pain, chiefly if it proceed from a Waſps ſtinging: foment the part with Camphire & Vinegar, or oftentimes with ſnow-water. Take Opium, Henbane-ſeed, Camphire, of each alike, mix them with Roſewater or juice of Willowes, and apply it, lay over it a cloth wet in Wine. *Ardoynus.* Take juice of wilde Mints *Aurei* 2. with juice of ſowre Lemmons, make a julep. Alſo the juice of the *Arabian* Thorn, and of Marjoram help much. *Meſue.* Water-lintels with Vinegar anointed. *Aaron.* Rub the part well with the fineſt leaves of *Xyloaraſter*, that is, ſweet Cods of *Pliny*, and the pain preſently ceaſeth. The juice of Lettice doth the ſame, or the juice of *Dandelion* drank. The Mud in the bottom of a veſſel where water hath ſtood long, applyed with Vinegar, cures the Waſps ſtinging. *Simeon.* Foment the part with Snow-water till it be ſtupefied. *Joannitius.* Any new earth, eſpecially *Cimolia* is good: *Poly* ſmeered on, as alſo Goats milk, cures Waſps wounds. *Arnoldus.* *Alcanna* with Barley meal, and Vinegar, bound to the part, Nuts, the leaves of Walnuts, Blites, are very good; alſo lay on hot to the wound a Spiders web beaten with a white Onion and Vinegar, it cures. *Conſtantinus.* Rub the place with Sage and Vinegar, and after with *Poſca*. *Guil. Placentinus.* Lay iron on the part, or Lead ſteeped in Vinegar. *Gordonius.* Apply Chalk in powder, and drink Mallowes ſeed in Wine and a little Vinegar boyled together. *Varignana.* His Bezoar is Coriander taken with Sugar. *Chriſtophorus Probus*, commonly called *Honeſte Nonius*, commends Balm leaves bruiſed with *Poſca* or with Oyl and applied. *Nonius.* *Sparagus* bruiſed with Honey and ſmeered on, Flyes beaten and laid on, Savory, wilde Mints, oyl of *Momordica* anointed, cure. *Matthiolus* commends Oxe dung laid on. *Marcellus.* Any man may finde theſe and a great many ſuch like receipts, the ſtorehouſe of Nature and of Phyſicians affords infinite remedies and antidotes innumerable to your hand every where. The Remedies for Bees and Waſps ſtings are the ſame, only that one requires them ſomewhat ſtronger than the other. In the year 190. before the Birth of Chriſt, as *Julius* witneſſeth, an infinite multitude of Waſps flew into the Market at *Capua*, and ſate in the Temple of *Mars*, they were with great diligence taken and burnt ſolemnly, yet they did foreſhew the comming of the enemy and the burning of the City.

CHAP. IX.

Of Hornets and the Tenthredo.

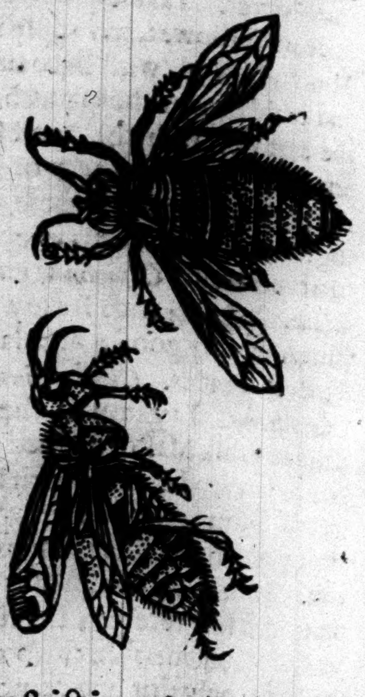
THey are called in the Hebrew, *Tſirdah*; in Arabick, *Zabor, Zambor*; in the German tongue, *ein Hornauſs horlits !froiſen pferzwuble*; in Brabant, *Horſele*; in French, *Freſlons, froiſons, ſoulons*; in Italian, *Colauroni, Crabrone, Scaraffon, Galauron*; in Spaniſh, *Tabarros o moſcordos*; in the Slavonian tongue, *Sierlern*; in Illyrian, *Irſſen*; in Engliſh, *Hornets, Great Waſps*; Hungarian, *Lo Daras*.

The Greeks call them ἀνθρήνας ϗ ἀνθρήνους; becauſe with their ſting they raiſe a Carbuncle. They are called in Latine *Crabrones*, perchance from the Village *Crabra* in the Countrey of *Tuſculum*, (where there are great ſtore of them) or from the word *Caballus*, *i. e.* a Horſe, who is ſaid to be their father. According to that of *Ovid. Met.* 15.

The warlike Horſe if buried under ground,
Shortly a brood of Hornets will be found.

Albertus calls it a yellow Bee. *Cardanus* will needs have them to ariſe from the dead Mule. *Plutarch* in the life of *Cleomedes*, ſaith they come out of Horſe fleſh, as the Bees do out of the Oxe his paunch. Now whereas they are more melancholy and ſullen then the Waſp, why ſhould I not with *Virgil* ſay that they are produced of the Aſſe? whom we have ſeen not only to fight with the Horſe, (when as the female or ſhe Aſſe would be backt) but alſo to chaſe and overcome him oftentimes. I conceive that thoſe are produced of the harder fleſh of the Horſe, and the Waſps of the more tender fleſh.

Their Deſcription. The Hornet is twice as big as the Waſp, and very like it in ſhape; they have four wings, whereof the two undermoſt are twice as little as the upper or outermoſt, the which are faſtened to the ſhoulders, being of a dark brown and Cheſnut colour, and with which they fly very ſwiftly. Six feet they have of the ſame colour with their breaſt and ſhoulders, their head long, of a yellow hew: their eyes hanging out in faſhion like a half Moon, between which grow two horns like a ſickle or reaping-hook of the ſame colour with the feet. The belly is made faſt to the ſhoulders with a ſmall thread; of which the one half is of a duskie colour, and begirt with a girdle of Saffron colour: the other half ſeems to be all Saffron colour, ſet with five dark colour ſpecks, together with a ſmall triangle, having moreover on both ſides of them certain joynts, by which they can contract or extend themſelves at pleaſure. On both ſides of the belly they have four black ſpots, and their tayle is armed with a long, ſtiffe and exceeding venomous ſting. As they fly they make a murmuring and humming noiſe, far more hoarſe than the Waſp. Who notwithſtanding they are gregal or hearding creatures, are fierce and cholerick, and alwaies of a wilde nature; nor (like wilde plants) do they admit of any taming: of ſuch malignity are they that with twenty ſeven ſtrokes they will kill a Man, or a Horſe, eſpecially in the Dog-daies, at which time their nature is more hot; and men are more weak by reaſon of the abundant exhalation of the ſpirits. No wonder then that in ſacred Writ they are compared to moſt cruel enemies, *Exod.* 23. 28. So *Ovid. Metamorph.* 11. *Spicula Crabronum ardentia*, the fiery darts of the Waſp. And *Virgil* in the 4 of his *Georgicks* calls them *aſperrima*, very ſharp. *Terence* in his *Phormio*: *Plautus* in his *Amphitryo* uſe that Proverb, *Irritavi Crabrones*, I have ſtirred up a Hornet, to ſhew the nature of women when they are angry, the more you ſtrive with them, the more you provoke them, and at length go by the worſt. Now as amongſt Bees both the Drones and the Kings or Maſter-bees have no ſting, and alſo ſome Waſps, (as we have ſaid before) ſo amongſt the Hornets there is not one but hath, both thoſe that are in trees *Ariſt. hiſt. l. 9. c. 2.* and thoſe that are in the ground, not ſo much as the Captain or Maſter Hornet but hath one. For the Hornets as well as the Bees *Ariſt. hiſt. l. 9. c. 42.* and Waſps have their Commanders or Maſter Hornets, what ever *Pliny l. 21. c. 11.* dreamt to the contrary; only they are bigger than the reſt according to the proportion of Hornets to Hornets, then Waſps are to Waſps, or Bees to Bees. **Their place and dwelling.** They do alſo remain within doors as the Maſter Waſps do, but they never breed but one Maſter Hornet of them in a Neſt, for fear of tumults and taking of parties; but as they are very troubleſome, and fatall to thoſe that from without annoy them and ſeek to ſpoyl them, ſo they are very ſtrict in preſerving domeſtick peace and quiet, and in keeping of mutual ſociety one with another, and in providing for their young they do even outſtrip the Bees themſelves; for they never quarrel about priority of place, nor diſtract them with diverſity of imployments, nor make a ſtir or tumult about the election of their Chieftain or Maſter Hornet, but all have one and the ſame employment, and they all diet together, whatſoever prey they take, or ſmall creature they kill abroad, they carry part of it home to their fellowes, and young ones.



Neither do they every year ſend out and expoſe to the wide world their young ones as the Bees do (and for which they are cenſured as in that reſpect unnatural) to finde out an harbour where they can for themſelves to dwell in: but all their new brood they nouriſh and bring up in their own boſome, and as need ſhall require build more and bigger neſts to keep them in. As for their King or Maſter Hornet (whom alſo they dearly love and reſpect) ſuch a one they have that doth appear not to want power to command, but occaſion to exerciſe it. Only he excels the reſt in courage of minde and bigneſſe of body (as it is uſual for Princes to do) for he is more fierce than any of the reſt when he is to encounter with forein enemies, as he is on the other hand moſt milde and gentle to his ſubjects at home.

Habitation. The Hornets make their neſts under ground: caſting up the mould as the Piſmires do. For neither they nor the Waſps ſend out young ſwarms as the Bees do (as is before ſaid) but as the young are bred there they remain, and ſo they dig their neſts bigger and bigger, as the family growes greater and greater. They make their neſts exceeding large; we took 3 or 4 baskets full of combs of the luſtier brood: they have very little or no honey in their cells; a drop or ſo where their young are.

If any of them chance to wander from their neſt, they gather themſelves together into ſome tree, and there make their combs in the top, which oftentimes are eaſie to be ſeen, in which they procreate one King or Maſter Hornet, who when he is grown up, leads away the whole troop and provides them a neſt with himſelf.

L. 11. c. 21. The wood or wilde Hornet (ſaith *Pliny*) live in hollow trees all the winter, like other Inſects they lie hid, they live not above two years. Their ſting is ſeldome without a feaver, cauſeth a carbuncle tumor, and exceeding great pain. They build their Neſts far more artificially than either the Bee or Waſp, ſometimes in the hollow trunks of trees, or elſe under their roots in the ground, which they make bigger and bigger according as their family increaſeth, and curiouſly plaiſter over with a kinde of ſlimy ſpittle gathered from gummy leaves. The mouthes or paſſages of their cells are never upward, but altogether downward; and they very providently place the bottom of their cels upwards, that the rain may not pierce through them, or leſt otherwiſe they ſhould be expoſed to the extremity of wind and weather were the head above. All their neſts in a manner are exactly 6 ſquare, the front or outſide whereof is beſet with white and ruſty iron coloured ſegments; the matter of them is membranous, much like pieces of Beech-bark, when it is roll'd together and ſhrievel'd up with heat. Whileſt *Pennius* was at *Peterborough* in *England*, he ſaw in the wide and open ſtreet a Hornet purſuing a Sparrow, whom when he wounded with his ſting he fell down dead to the ground, and with the admiration of all that beheld them, he ſuck't out and fill'd himſelf with the bloud of the ſlain prey.

Concerning the Copulation of Hornets *Ariſt.* knew nothing of certainty, as neither from whence nor how they are bred. But for as much as they do for certain lay their young at the very ſides of their cells, as Bees and Waſps do, it ſhould ſeem after the ſame manner they bring them forth. But if they do couple, they do it in the night, as Cats do, or in ſome ſecret places, out of all poſſibility of being ſeen; where *Argus* himſelf ſhould not eſpie them.

The Hornet doth not feed on flowers, but lives for the moſt part on fleſh: and rather then fail, oftentimes they will ſtoop to dung and excrements. They hunt after great flies alſo and the ſmaller birds, which when they take, they firſt wound the head as the Hawk doth, and then pluck it off and fly away with the reſt of the body. In the winter they die many of them: becauſe they do not as the Bee, lay up proviſion beforehand, but only live from hand to mouth, regarding nothing but their preſent neceſſity. *Ariſt. l. 5. Hiſt.* Moreover, as *Landius* obſerves, they watch about the Bee Hives, and getting on their backs uſe them in ſtead of a Coach or Chariot to carry them; for when the poor wretches ſtrive to fly away, they carry a moſt cruel rider on their backs, who when he hath ſuckt out all the juice that is in the Bees body, is the moſt ungrateful of all winged creatures, he kils and eats up him which ſupplied his hunger. Alſo all ſweet things whatſoever the Hornet will feed on: inſomuch that I have ſeen him with mine own eyes to eat of graſſe worms. But the *Indian* Hornets have ſuch a vaſt appetite (as *Oviedus* witneſſeth) that they will light upon Oyl, Butter, Cakes, Sawce, and all liquid things whatſoever; not ſparing napkins or table-clothes, which they will conſpurcate and defile with their filthy excrement, and laying of their ſlimy eggs. Now as they feed upon what they got from others, ſo they do not want one to prey upon them likewiſe. Above the reſt the Brock, who about the full of the Moon enters their dens or neſts and deſtroys both houſe and family. Nor are they food for this uſeful fat creature only, but they ſerve the countreymen by way of prognoſtick, to foreſhew the alteration of weather; for if toward the evening they are ſeen to fly about in greater ſtore then ordinarily they are wont to do, it is a ſign that the next day will be fair and hot: but if about twilight they often enter into their neſts as it were to hide and ſhelter themſelves, then expect rain, winds, and ſtormy weather to enſue. Upon which *Avienus* thus:

Their Uſe.

So when you ſee troops of hoarſe Hornets fly,
Late at the end of Autumn, they foreſhew,
When firſt Virgilius *ſtirs the evening skie,*
That ſtorms at ſea ſhall preſently enſue.

Morever whereas the ſame Medicines that cure the ſtinging of Waſps, will prevail alſo againſt the ſtinging of Hornets: yet as *Aggregator* hath taught us, a Hornet is the Bezoar ſtone for its own wound laid on with *Poſca*, Oyl, or Oxe dung; Alſo Bole, and all fat earths are commended, ſuch as *Bacchus* applied to bald *Silenus*, who was ſtung with Hornets, whileſt he rifled their neſt for honey ſuppoſing they were Bees: *Ovid.* deſcribes it neatly in 3 *Faſtor*:

Remedies againſt the ſtinging of Hornets.

Thouſands of Hornets his bald pate torment,
And with their ſtings they wound his ugly face,
He fals, and cries for help, a foul diſgrace;
What remedy, it was too late for to repent.

When that the Satyrs came, & found poor Silenus,
His face all ſwoln, and halting on his knee,
They could not chooſe but laugh, Bacchus *ſaid thus,*
Noint it with Mud, it prov'd a remedy.

He that deſires more remedies againſt the ſting of the Hornet, may finde of them plenty in the ſtory of the Waſp. For Authors do ſeem to make them all one, only with this difference, that in this caſe they ought to be given in greater quantity, and the uſe and application of them longer continued.

Now let us proceed to the Inſect called Tenthredo.

Whether it ought to be called τενθρήδων, πενθρήδων, & τενθρήνη according to *Ariſtotle*, or πεμφρήδων according to *Nicander*, let Philoſophers judge; they ſeem to me to differ only in name and bigneſſe. For whereas the Scholiaſt of *Nicander* cals it *inſectum* σφηκώδης, an Inſect like a Waſp, I do not weigh that, when as ever and anon, by Poetical licence, he cals the Waſp, *apem Croceam*, a yellow Bee. What name it hath in other nations I know not, and (to ſay the truth) nor know I the little Beaſt it ſelf. Only this I finde, that Authors deſcribe it to be in colour like a Waſp, like a Bee in bulk or bigneſs, and in communication of labour like all other ſocial winged Inſects. He is very ſawcy, loves the kitchin well and fiſh, inſomuch that ſome think it ſhould be written τενθήδων in ſtead of τενθρήδων ἀπὸ τῆς τενθείας, becauſe it is given ſo much to Licoriſhneſſe. *Heſychius* cals it ἀγρίαν μέλισσαν, a wood or wilde Bee. *Hermolaus* thinks they ſhould rather be called ἀφρηδόνας or ἀνθρηδόνας, rather than τενθρηδόνας, as he ſaith it is corruptly read in *Ariſtotle*: He makes his neſt in the ground as the Waſp doth, with many rooms very large and handſome. *Pennius* will not by any means yeeld that the *Pemphredo* ſhould be the ſame with *Tenthredo.* For the *Pemphredo* (as the Scholiaſt of *Nicander* deſcribeth it) ζῶόν ἐστι παραπλήσιον μελίσσῃ, ἀλλὰ ἡ τενθρήδων σφηκί, *i. e.* the *Pemphredo* is very like the Bee, but the *Tenthredo* like the Waſp. But yet notwithſtanding the Scholiaſt forgets himſelf; who writes alſo of the *Pemphredo* after this manner: *Pemphredo* is an Inſect like a Waſp, it hath a ſting, is greater than a Piſmire, but leſſe than a Bee; it hath wings, and a various colour tending to black; in fair weather it gathers ſuſtenance from the ſhrubs in the valleys, then it flies and laies it up in the hollow oaks.

In Alexiph.

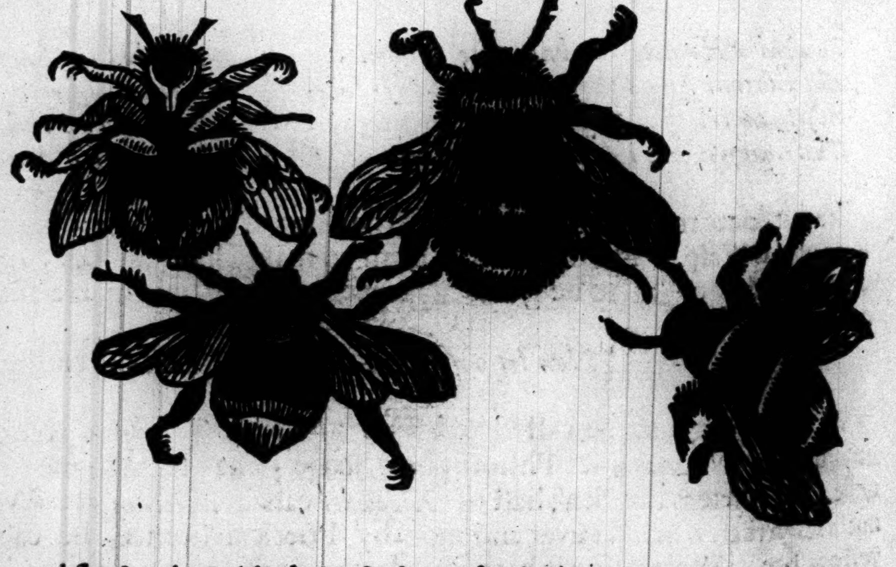
This Inſect haunteth woods and mountains, gathers honey juice from flowers, and layeth it up in a hollow oak as being his Repoſitory for the ſuſtentation of his life; but honey he makes none, wherefore they differ in no other thing but in bigneſſe; rightly termed of the Poet, *Parvula Pemphredo, i.e.* a ſmall *Pemphredo*: as degenerating only and eſpecially by that mark from the *Tenthredo.* Of winged Piſmires, we ſhall ſpeak in the Chapter of Ants. And this ſhall be ſufficient hitherto to be ſpoken of winged Inſects, ſuch as are ſocial and live together. Now we ſhall bend our diſcourſe to ſpeak of winged ſolitary Inſects, or ſuch as live ſeverally by themſelves.

Amongſt theſe ſolitary ones, ſome there are that have neſts, as the young Drone called *Siren*, the Drone called *Bombylius*, and the *Bombyx*; others that have no neſts, as the Fly, the Gnat, the Butterfly, the Moth, the flying Glow-worm. Thoſe that build neſts, are the *Sirenes* of both kindes, ſo called by *Euſtathius*, ὅτι συμφωνίαν τινὰ φωνὴν ἔχειν, *i.e.* becauſe they ſeem to have a kinde of articulate or ſignificant voice, or perhaps as that ſea Monſter, ἀπὸ τῆς σειρᾶς, becauſe with his pleaſant noiſe and buzzing he doth as it were tickle and charme the ear; and not unfitly ἀπὸ τοῦ σείειν, becauſe they beat and flutter in the air with their wings.

Of the *Sirens* there are two ſorts, the one leſſe all of a duskie colour; the other bigger black mixt with other colours. This ſort *Pennius* referreth to the ſpecies of the Waſp, and ſo he deſcribeth it in his drafts. All the body black, except the back, which is reddiſh from the middle almoſt to the tail, the extremity of which being black, hath ſilver coloured wings affixed, the former twice as big as the other: they harbour in wals, and in the brinks of ditches, and ruinous buildings; whether they have any ſting, or no I know not.

The *Bombyx* is ſo called ἀπὸ τοῦ βέμβειν, becauſe they never flye but they whirle and turn round in their flight: whence the Greeks call *Topps* or *Wheels*, βέμβικας. It is a creature reſembling the Waſp, of a black hue, having a ſting like as the Waſp hath, but ſtinging ſo deadly, and with ſuch force, that it leaves the weapon in the wound. As a remedy to this *Nicander* commends the Pine tree Gum, and the unctuous honey of the Tenthredo. *Parmeni* in his *Iambicks* makes mention of this creature, which in the time of vintage uſeth to eat the ripe Grapes. Another of this ſort is found in *Aſſyria*, but of greater bulk. Some of them build their neſts ſpire wiſe out of clay like to glaſſe or ſalt, faſtening them to a ſtone or ſuch like thing, but ſo hard and thick that you can ſcarſe pierce them with a dart. For theſe they lay and bring forth little white worms, covered over with a black membrane; in another membrane they make wax in clay, much paler in colour and in greater plenty than the Bees. So *Ariſtotle* and *Pliny*. Who indeed were very ſparing in their relations concerning the *Tenthredo*, *Bombyx*, and Humble Bee; either becauſe their nature was not ſo well known to the generality of the Grecians, or rather becauſe they themſelves were not ſo well vers'd in their Hiſtory.

The *Bombylus*, greateſt of the neſting Inſects, is bigger than either of the *Sirens* (ſpoken of before) he hath his name from the humming noyſe he makes: for the word βομβυλιάζειν ſignifieth as much, to make a humming or buzzing noiſe: for which cauſe he is called by the Germans *Hummel* or *Humlen*, in Engliſh a *Humble Bee*, as you would ſay a ſounding Bee, the name being taken from the noyſe they make: from whence (as the learned *Turnebus* notes) the long pipes are called *Bombyces* from the humming ſound they give. *Pollux* cals theſe πορδειακὰς αὐλοὺς, and *Theophraſtus* cals a reed fit for theſe kindes of pipes βομβυκίαν.



They are of little or no uſe. Inſomuch that the Greeks uſe to call an idle unprofitable man, βομβύλιον ἄνθρωπον, *i.e.* a man no better than a Humble Bee; for ſuch is this kinde of Bee, even of no uſe at all. Nevertheleſſe one *Antiſocraticus*, to ſhew his wit, hath taken a great deal of pains to ſet forth the commendations of it. A cup with a wide mouth making a great noiſe as they drank, was in great requeſt with the Ancients; that ſo, not only the brain might be intoxicated with the liquor, but the ears alſo with the greatneſſe of the noiſe. They breed under ſtones hard to the ground, they build their neſts ſometimes with two doors, ſometimes with three; in which there is found a beginning of a certain courſe Honey, and that (as *Albertus* relates, and *Pennius* ſaw) not of any great quantity; who once found ſo much as he could ſcarſe hold in three handfuls. The Engliſh Humble Bees have not all ſtings, only ſome few of them, but thoſe that have do ſting grievouſly; the honey they make is not very ſweet, and withall ſome what wateriſh. They faſten their wax as the Bees do to their hinder legs: they couple tail to tail, in the mean while holding faſt by ſome plant or tree, they continue long in the act of venery, and all the time clapping with their wings they make a harſh noiſe, as if they were ſinging a Bridal ſong.

Ἐν τῇ πόσει βομβεῖν.

CHAP.

Chap. X.

Of Flyes.

IN Hebrew, *Zebub*; in Arabick, *Dubene, Aldubel*; in Illyrian, *Muſcha*; in Spaniſh and Italian, *Moſca*; in French, *Mouſche*; in High Dutch, *Flieg m' uck*; in Low Dutch, *Uliegh mugge*; in Engliſh, a *Fly*, from flying or ſcaping away, for it ſignifies both; in Scottiſh, *Flee*; in Greek, μῦια ἀπὸ τῦ μύζειν, that is, *to ſuck deeply*, or *to mutter*, the Fly doth both. Latine, *Muſca*.

Not as proceeding from *Muſcus Moſs*, as ſome do fondly dream, but from *Muſculus* a muſcle; for taking off his wings you ſhall ſee that his head is full of ſinewes, his body ſoft, his tail tendinous. Hence the diminutive *muſcula* in *Boethins*, who thus elegantly cries out, *Quid homine imbecillius quem morſus muſcularum necat?* VVhat ſo frail as man whom the ſmalleſt Fly is able to bite to death?

The Deſcription.

Now the frame both of its body and minde we deſcribe thus out of *Lucian* and others. The great Fly is the leaſt of winged Inſects, inſomuch that it may be compared to the leaſt Fly or Flee: only he is ſo much bigger than they, as the Bee is bigger than he.

It hath wings, not ſuch as other things that flie have, but made of little skins as the Locuſts, Graſhoppers and Bees are, but a very great deal ſofter, as an *Indian* Garment is ſofter than thoſe of *Greece*. If any man obſerve the Fly when he opens his wings in the Sun, he may perceive them painted with variety of colours, as the Peacocks are. He doth not flie ſtraight forward, as the Bats do; nor skipping as the Locuſts, nor making a noyſe as the VVaſp; but winding in and out to what part of the air ſoever he pleaſeth to move himſelf. Neither doth he flie quietly and in ſilence but with ſinging and melody; not ſo hard hearted and cruel as the gnat or little Flyes, not as Bees and Waſps with a grave harſhneſſe, making a horrible and terrible murmuring: yea ſo far doth the Fly exceed all theſe in ſweetneſs of ſound as he flieth, as the ſmall Pipe doth the Trumpet and Cymbal, or as ſtill muſick is ſweeter then the loud.

The commendation of the Fly.

He hath a very little head bound to his neck, turning every way, not compacted and faſtened to his ſhoulders as the Locuſts is. His eyes ſtand out very much, ſhining as if ſet in horn. His breaſt is very firm and well compacted. He hath ſix feet growing out of his body, not as the Waſps faſt bound or tyed to it; he goeth only with four of them, the other two ſo emoſt ſerve in ſtead of hands; as you ſee him commonly go upon four feet, in the other two holding up ſomething or other that he hath gotten to feed on to his mouth as men do, and as we do. His belly is ſlender anſwerable to his breaſt, having broad girdles and ſcales. He doth not ſting with a ſting as the Bee and the Waſp do, but with his mouth and ſnout like the Elephant, and he eats and takes up things with it, and ſticking in a concave veſſel he holds it in the top of his ſnout: out of this comes forth a tooth, with which he pricks or bites: he drinks nothing but milk and bloud; the which he draws forth of thoſe he ſtings with very little or no pain at all, but only with a kinde of titillation or tickling. The light, like Truth, he doth exceedingly rejoyce in, and doth behave himſelf honeſtly therein and civilly. Yea the Fly doth ſo covet the light, that many times with the Spider or Spinner he loſeth his life for his pains; at night he goes to reſt (as honeſt folk uſe to do) and makes no noiſe. He does nothing in the dark, counting it unbeſeeming for him to do any thing privately, or to be guilty of that fact which if done in the light would be a diſgrace and diſparagement to him. I can aſſure you it is no little underſtanding that he hath alſo; whereby he doth eſcape the wiles of his treacherous enemy, the Spider: for he marks him as he lies in wait for him and looks upon him, and ſo declines his force leſt he ſhould be taken in his net, and be deſtroyed. I muſt not ſpeak of his proweſſe and valour, for in that he may ſeem to ſurpaſſe man himſelf. *Homer* the Prince of Poets, when he did endevour to ſet forth and commend the gallantry of the braveſt noble man, doth not compare his ſtrength to that of the Lion, Leopard, wilde Boar or the like, but to the undaunted courage and confidence of the Fly. Who although he be never ſo often repulſt and beaten off, comes on again, and bites as cloſe as he did before: yea ſuch a ſtrength he hath with him, that he will not wound the skin of a man only, but of an Oxe or Horſe: yea the Elephant alſo when he gets between the wrinkles of his skins, he will ſhrewdly vex him, and according to the bigneſſe of his ſnout gaſh and wound him: when he bites, 'tis not out of ruſticity or clowniſhneſs to get bloud only; but by way of love & humanity, & for that reaſon eſpecially he ſeiſeth upon the faireſt: yea what a pretty thing it is to ſee a company of Flyes flying to and again playing and ſporting one with another, and hanging upon a thred as it were dancers on the ropes? Moreover as the cleanly horſe doth, ſhe laies her ordure all in one place, ſo that upper wainſcot and ſeiling of the rooms where they uſe are all full of great ſpots which they make on that occaſion, which is an argument that they are not altogether void of ſome kinde of memory alſo. *Tzetzes* ſaith moreover, that ſuch is their love to thoſe of their own kinde, that they bury their dead corpſes. *Ælian* doth as much diſcommend them as *Lucian* commends them: and he inveighs againſt their procacity and ſaucineſs; which is ſuch, that being driven away never ſo often, they notwithſtanding return with freſh aſſaults. He blames them likewiſe for their impudence, in that they couple in publick, and know no end of their Venery almoſt; neither do they as the Cock, when he once hath trodden preſently fals off, but is born upon the back of the female a long while, and ſhe carries him; they fly away together into the air, yet are they not ſundred with flight. Learned *Pennius* caught two Flyes in the Act, and ſhut them up in a box, and the next day found them together ſtill in the ſame poſture; which doth much confirm what *Ariſt. Ælian* and *Niphus* ſay, to wit, that Flyes do continue very long in the act of generation. *Plutarch* ſaith that the Mouſe and the Fly are indocile and unteachable creatures, who although they uſe the company of men daily; are by no means tamed, neither do they ſhew the leaſt courteſie, or the leaſt ſhew of a grateful minde for what they receive of any man: both of them are by nature very ſuſpicious, alwaies fearful of treachery, afraid to be caught. She is altogether idle and careleſſe, feeding upon the labours of others, and where ever ſhe comes ſhe hath a full table. For her the Goats are milked, and the Bee beſtowes her pains as much for her as for any other; the Cooks provide Meſſes for her, the Confectioners Sweet-meats, the Apothecary Syrups, and theſe ſhe taſtes before Kings, and walking all over the table ſhe feaſts her ſelf with them in their company, as alſo with all other whatſoever. *Plautus* took her to be of no uſe in his *Curculio*, where he thus ſpeaks: *In my conceit you are a kinde of Lions amongſt men, as Flyes, Gnats, Sowlice, Fleas, that do much hurt and do no good.*

Well therefore did Nature take care, that ſhe ſhould have no certain place to dwell in, as honeſt folks have, but ſhould wander up and down, where ſhe could get her a lodging and travelling harbour. But in impudence ſhe goes beyond any begger whatſoever; becauſe they having had once a denial are therewith ſatisfied, but this begger will take no anſwer, but will fill his unprofitable gut with the beſt cheer in the houſe whether the maſter will or no. *Ariſtaphon* in his *Pythagoriſta* recited by *Athenaus*, brings in an impudent Paraſite ſpeaking on this manner:

Cœnis etiam non vocatus, ut muſca, advolo.

I haſten to ſupper as the Fly, without any invitation.

Some ſuch like matter *Socrates* upbraids *Theodate* withall in *Xenophon*: wherefore the *Egyptians* being to ſet forth diſhoneſty and impudence together, they made the picture of a Fly, as *Orus* ſaith. Whence it is, that *Cicero* (if I be not deceived) ſaith it was ſaid ſometimes by way of jeſt concerning a troubleſome impudent youth, *Abige Muſcas puer*: Boy beat the Flyes away. To this ſo peſtilent a little beaſt Nature (as meet it ſhould be) hath denied long life therefore. For as ſoon as winter begins to come on, the greateſt part of them expire; and thoſe that eſcape ſtarving, in clifts, wals, hollow places, ovens and ſuch like, they lie all the while weak and languiſhing, and not able to hold out another winter. All of them are begotten of filth and naſtineſſe, to which they moſt willingly cleave, and reſort eſpecially to ſuch places which are ſo unclean and filthy; unquiet are they, importunate, hateful, troubleſome, tumultuous, bold, ſawcy. *Homer* amongſt the battels of the gods and heroes elegantly deſcants upon the baſeneſſe of the Fly, who like the Mouſe, alwaies hath his hand upon another mans trencher.

The Fly, though often forced from your ſkin,
Yet ſhe returns again, ſhee'l never lin.

Yea *Solomon* himſelf thought their nature to be ſo bad, that he ſaith in his Proverbs, that one of them is able to ſpoil a whole box of ointment. To conclude, the *Hebrewes* to ſet out the Prince of Devils, called him *Bahalzebub*, *i.e.* a Fly: which uſeth the ſame diligence, and never leaves off doing of hurt. Which is the reaſon that Witches and Wizards will have their Familiar to be alwaies in likeneſſe of a Fly, uſing the body of a bad creature to far worſe purpoſes. I could alledge much more a great deal than this againſt the Fly, if I deſired the name of *Antilucian* with whom it is a diſparagement for a Chriſtian to contend, yea or to meddle withall, more than with the moſt loathſome carkaſſe. Neither will it be more diſgrace to me to make nothing of a Fly, than for *Lucian* to make him an Elephant: both indeed being but loſſe of time, and vain oſtentation of wit. But yet nevertheleſs that leſt like the Eagle I may ſeem to contemn flies, or to neglect the leaſt of Gods works; I ſhall with all diligence ſet down the Generation, Difference, and Uſe of Flies.

Flies are generated two waies, by coupling with their own ſpecies (which is done in the ſummer ſeaſon, and in the winter if the weather be fair) or by the putrefaction of other things. The Flies uſe copulation, ſome of them diſpatch the work ſooner, others after ſome ſpace of time: the manner whereof (as *Ariſt.* affirms) is divers from moſt of the other Inſects; for when the male aſcends the female, he takes the member of the female (that is ſtretched forth to ſeek for ſeed) into his body, the which being accordingly received, he furniſheth with matter and ſtrength to bring forth. Reverend *Pennius* ſaw two Flyes at *Hedelberg* flying in the act of copulation, who (as it had been the ſon of *Mercury* or *Venus*) ſeemed to be of a mixed nature, and they did get up by turns. Somewhat a while after copulation they exclude or ſhoot forth little worms, as the Hen doth eggs; which afterwards by a ſtrange *Metamorphoſis* are again changed into Flyes. Although *Pliny* contrary to experience doth without ground affirm that nothing elſe doth ariſe out them. Very rightly *Scaliger* ſaith, that the Flyes at firſt do generate Inſects unlike themſelves, but yet in a capacity of becoming the ſame, (that is to ſay) white little worms, which afterwards being made like to Flies, have eyes hanging down by their ſides; in reference to whoſe likeneſs there is a kinde of diſeaſe in the eye, called *μυιοκέφαλα, i. e.* headed like a Fly. Now a great number of Flyes, if not the more part of them, ariſe from dung, whence I have ſeen them to come perfect where before they were begun. But in this kinde of generation we muſt note, that Flyes are not immediately procreated of dung, but of the little worms proceeding of digeſted dung, as the Philoſopher writes in theſe words. Αἱ δὲ μυῖαι ἐκ τῶν σκωλήκων τῶν ἐν τῷ χωριζομένῳ κατὰ μέρος, *&c.* Which *Gaza* tranſlateth thus: *Muſca ex vermiculis fimi digeſti in partes gignuntur*, &c. In Engliſh thus: *Flyes are begotten of dung digeſted into parts, therefore they that deſire to meddle in this buſineſſe, ſtrive to diſtinguiſh the dung that is not digeſted, from that is mingled with that which is digeſted. Now theſe worms at the firſt are exceeding ſmall, afterwards begin to be red, then as yet without motion as it were, cleaving by fibres they begin to move; then they become unmovable worms, afterwards they move again, then become they again to be without motion, and in concluſion by the aſſiſtance of air and ſun there is begotten a living Fly. Ariſt.* here, as it ſeems, ſpake rather from others obſervation than his own skill. For neither thoſe worms that are generated by copulation; nor thoſe which are bred of putrefaction are ſubject to ſo many metamorphoſes or tranſmutations, before they are transformed into Flyes. For they only grow to ſuch a bigneſſe, afterwards are turned into a *Nymph* or young Fly, and ſo lie ſtill, then at a certain time appointed by Nature the *Nymph* groweth to be a Fly.

Neither are Flies begotten of dung only, but of any other filthy matter putrefied by heat, in the ſummer time, and after the ſame way ſpoken of before, as *Grapaldus* and *Lonicerus* have very well noted.

But yet the queſtion would be, whether Flyes are not immediately generated of putrefaction, and not of thoſe worms. For experience witneſſeth that there are a certain kinde of Flies which are begotten in the back of the Elm, Turpentine-tree, Wormwood, and ſo perchance in other herbs and plants, without any preceding vermiculation, or being turned into little worms firſt. So that *Scaliger* that angelical man, and the moſt learned of this Age, writeth thus of their original: *Peradventure* (ſaith he) *they may ſeem not to ariſe from putrefaction, but from ſome certain principles changed as from ſome kind of liquid gum, or from ſome other matter concocted by Nature for this end.* Now whether concoction can be without putrefaction there is the ſcruple. Each part of mans body hath its conveyance for the expurgation of its excrements, called in Latine *Emunctoria.* But whether a living creature may be the excrement of a creature that never had life, let others determine; here my ſight fails me, or rather I am altogether blind. A third way how Flyes are begotten, Sir *Tho. Knivett* an Engliſh man, and of ſingular learning, did firſt of all inform *Pennius* of, and it was thus: The corrupted body of a Caterpillar or a little bruiſed, is converted into an imperfect *Aurelia*, then from that not a Butterfly, but three black eggs are caſt out that are ſomewhat long faſhioned, from whence proceed ordinary Flyes, or others like to them; and ſome times the *Aurelia* being putrefied, neither Butterfly nor eggs come forth of it, but white worms, (ſometimes one, ſometimes many) come forth, whence are generated very ſmall Flyes.

The which famous obſervations of natural Hiſtory truth it ſelf doth enjoyn us to acknowledge received from the foreſaid Knight; for no man before him did ever obſerve the like. *Peter Martyr* in his 3 *Decad.* and 6 *Book*, reports that he ſaw drops of ſweat falling from the fingers of labourers, turned into Flyes, and ſo they write that in the marſhy Countrey of *Paria*, by reaſon of the contagiouſneſſe and venemous quality of the air, the drops that fall from the hands of the labourers do bring forth Toads. But whether it be done immediately or mediately by ſome worm out of which the Fly ſhould break forth, he doth not ſhew.

In the year 766. before the Nativity of *Chriſt, Rivallus* then being *K. of Britains*, there were ſhowres of bloud three daies together very great, very many, from whence came abundance of Flyes, and ſo poyſonous, that with their ſtings they killed a great number of people: ſo ſaith the Engliſh Hiſtory.

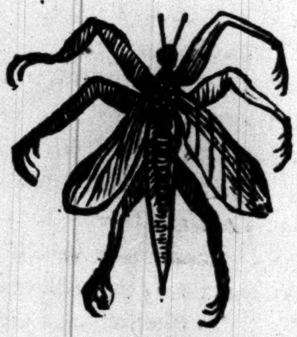
Now the Fly for the moſt part is not at the firſt a Fly, but a worm, proceeding either from the dead corpſes of men, or the carkaſſes of other creatures, then it gets feet and wings, and ſo becomes of a creeping creature, a flying; and begets a little worm, which afterwards becomes a Fly. Take off the head of a Fly, yet the reſt of his body will have life in it, yea it will run, leap, and ſeem as it were to breath. Yea when it is dead and drowned, with the warmth of the ſun and a few aſhes caſt upon it, it will live again, being as it were anew made, and a freſh life put into it, inſomuch that *Lucians* diſciples were perſwaded and did verily beleeve that the ſoul of them was indeed immortal. Foraſmuch as it goes and comes, it owns its own body and raiſeth it up, ſo that it drinketh, eateth, wipes its head and eyes, makes clean its ſnout, rubs its ſhanks and legs, claps its wings and flies: verifying the opinion of *Plato* concerning the immortality of the ſoul, and the fable concerning *Hermotimus Clazomenius*, whoſe ſoul would often go out of his body, wander up and down a great way by it ſelf, and afterwards would return into the body, repleniſh and raiſe it up again. Some will put drowned Flyes into warm Aſhes, or warm Bran, and in a quarter of an hour foſtering them in their hands and breathing on them, they will bring them to life again.

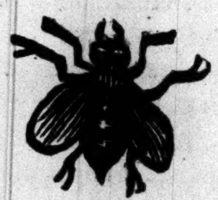
Chap. XI.

Of the divers kindes of Flies.

There is a great deal of difference amongſt Flies, whether you reſpect the matter or form of them. Some of them come from themſelves by way of copulation as hath been ſaid, others from ſome aſcititious or external matter: ſuch are they that are bred in Dung, Apples, Oaks, Beans, *&c.* In regard of their form or ſhape, ſome have two wings, others four, with horns or without; ſome ſhort, ſome long, ſome have round tails, others ſharp or piked, hairy and without hairs: in a word, they vary in colour, ſhape, bigneſs according to the nature of the Countrey they live in, or the putrefied matter whereof they are made. I wiſh I had ſeen them all, and I know *Apelles* himſelf would hardly have been able to paint their faſhions.

Now for brevities ſake we will make two ſorts of Flies. For either they are ἀλληλοφάγοι, or ἑτεροφάγοι. Thoſe that feed upon their own ſpecies, or thoſe that feed upon other things. The firſt of theſe called in Latine, *Lupus*, in Engliſh, the *Wolf fly*, is deſcribed to be big, black, with long ſhanks; he feeds eſpecially upon flies, if he cannot come by theſe he preys upon other Inſects. Thoſe that feed upon things of another ſpecies: either they are ſuch as feed upon living creatures, or upon things inanimate or without life. Of the firſt kinde is the Fleſh-fly, Horſe-fly, Oxe-fly, the Suck-egge-fly, the Fly that eats Serpents, the Dung-fly, the Fly that preys upon the Humble Bee.

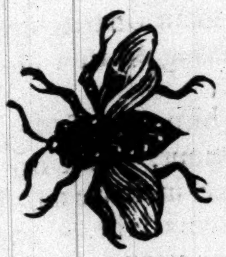


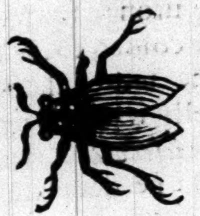


The Fleſh-fly. The Fleſh-fly, in regard of his bigneſſe and bulk of his body, is the biggeſt of all other, he hath a reddiſh head, his body full of gray ſpots, his belly thick, blew, tranſparent, having two wings, hairy, very greedy of fleſh. He flies for the moſt part alone, unleſſe it be perhaps in the fleſh-market or Shambles; where the Butchers turn fencers, continually killing and beating them away with their Fly-flaps, leſt with their fly-blowes (which *Hippocrates* cals εὐλὰς in Greek) their fleſh ſhould be tainted. There is a ſtory (as *Cælius Rhodiginus* relates it) that at *Toletum* in the open Butcher-row, one Fly amongſt the reſt uſed to come by the ſpace of an year, as white as ſnow, which I dare ſay was of this ſort in regard it was ſeen to be ſo long together in that place.

The Dog-fly. Κυνόμυια, *Muſca canum*, in Engliſh a *Dog-fly*; in the German tongue *Hunds Fliege*, *Hunds Mucken*; in the Polonian, *Pſia Mucha*; *Iſidore*, and *Euthymius*, and *Philo*, ſuppoſe it to be a Wood-fly: very irkſome to the ears of Dogs, the which notwithſtanding they ſhake it oft never ſo often, yet returns with as much violence as before; where if he tarry any while, with the galling of the fleſh he raiſeth a bliſter: of whom *Homer* in his *Iliad.* 15. Τίπτ᾽ αὖ κυνόμυια θεοὺς ἔριδι ξυνελαύνεις, *i. e. Why like a Dog-fly doſt thou contend with the gods?* *Athenæus* alſo in his 4 Book, reports that the like name of Dog-fly was given to a certain famous Curtizan for her unparallel'd impudence, mordacity and troubleſomeneſſe. Now the Dog-fly (to borrow the words of *Philo*) is an Inſect that bites hard, is importunate and treacherous: ἔνλοιμον λίαν δηκτικὸν, ἀναιδὲς ϗ ἐπίβουλον. This ſeemeth to me in holy Writ, as in *Exod.* 8. *Pſal.* 77. & 104. to be the common name of all hurtful Inſects, as appeareth by the *Chaldee Paraphraſe.* As for their more ſpecial ſignification, they can be compared to no kinde of Fly better than thoſe black great broad flat ordinary Flies which do ſo boldly fly upon cattel, and not only ſuck from the outermoſt skin of them watry bloud as other Flies, but with great pain fetch out and ſuck bloud very deep. They want a ſnout, but in ſtead thereof they have two teeth as the Waſps have, which they faſten deeply into the skin, but more eſpecially they infeſt and annoy the ears of Hounds in *Germany*, inſomuch that (as *Camerarius* witneſſeth) they even pluck off the skin. Theſe an Engliſh Gent. ſaid he ſaw in *Italy* in ſhape altogether like the Dog-fly, only without wings: whoſe wings alſo are repreſented ſo cloſe to his body that the learned Dr. *Barbar* takes them for the ſame. *Niphus* doth aſcribe unto it wonderful ſwiftneſſe of flight and roundneſſe of body. The neareſt in likeneſſe to it is the Tick or Sheep-fly, making a kinde of a horrid noiſe as he flies, and is in his flight more ſlow and heavy then a Gad-fly. There are two kindes of them, differing only in bigneſſe, the greater which is the Forreſt-fly, the other the leſſe living in hedges and quickſets.

The Horſ-fly. The Horſe-fly called in Greek ἱπποβόσκοι, in the German Tongue *Roſs Mucken*, is of the bigneſſe of the ordinary Fly, with a flat, hard, ſmooth body, and of ſo compact a ſubſtance, that you can ſcarſe break it betwixt your fingers; they are ſomewhat blacker than the common ſort of Flies are, they never fly right forward but ſidelong, as it were hopping and ſkipping as they go, they fly neither long nor faſt. In *England* eſpecially they are very troubleſome to Horſes, ſtinging them continually about the ears, noſtrils, ſtones,





the tails, with the ſweat whereof flowing down to the root of the hair they live and are ſuſtained. The Engliſh call it a ſide-fly or a Horſe-fly, as the Greeks ϖλευ εμπολῖτας, of the like ſignification. Some of the Greeks call them κυνοῤῥαῖς, and they ſay that in hot Countreys the Dogs are very much vext with them. They ſay that it is of that kinde *Croto* makes mention, having wings and able to fly; but yet I think this to be another ſpecies; and only proper to Horſes, and offenſive to them.

Brees or Beaſt-fly.

This Beaſt-fly is in Latine called *Aſilum*; in Greek οἶςρον, from ſtriking or ſtinging: whence not only this Inſect but another that uſeth to ſcare Bees (of which hereafter) and a third very formidable to ſome kinde of Fiſh, are called by the ſame name of *Oeſtrum*. Of this kinde of Fly the Poet *Virgil* in the 3 of his *Georgicks* chanteth after his manner:

> *A Fly there's in* Silarus *woods, that much*
> *Vſeth neer to green holm, the Greeks call ſuch*
> Oiſtron, Aſilus *is the Latine name,*
> *It makes a ſharp harſh noiſe, and with the ſame*
> *Heards of cattel frighted fly and quiver,*
> *Woods, and barks ſound of* Tanagius *River.*

Difference of *Aſilus* and *Tabanus*.

Calepine and other Lexicographers of his gang, beſides ſome Phyſicians, and even *Pliny* himſelf makes this Fly one and the ſame with the Oxe-fly, ſo that it is very probable that they did not ſo heedfully read *Ariſtotle* as they might, or did not indeed underſtand his meaning. It is confeſt on all hands, that *Aſilus* and *Tabanus* are a ſpecies of Flies, and that both of them have a ſting in their mouth, with which they pierce the ſides of the beaſts, and ſuck out their bloud. For ſo ſaith the Philoſopher, οἱ μύωπες ϗ οἱ οἶςροι τὰ δέρματα διατρυπῶσι τῶν τετραπόδων: Oxe-flies and Brees make holes in the skins of four footed Beaſts, and they have a ſtrong tongue which ſerve them for a ſting, they are creatures that eat bloud, *&c.* But yet that they differ much, *Ariſtotle* and *Ælian* plainly ſhew. Firſt the *Tabani* are more frequent eſpecially in woods and highwaies that are beſet with trees and hedges, as they who uſe to travel on horſeback know to their great trouble and vexation. For in the heat of the day they ſting deeply: And being then greater in number do draw out ſuch a quantity of bloud, that many times the horſes ſtrength fails them, inſomuch that the Countrey people are forced to beat them off from their horſes with fly-flaps and boughs which they carry in their hands. But the *Aſili* are more rare, and never fly but near the water ſide. Moreover the *Aſili* (as witneſſeth *Ariſtot.*) do take their beginning of certain kinde of broad and flat little creatures which haunt about rivers ſides: but the *Tabani* come of certain worms breeding in wood or timber; that which *Soſtrates* wrote, and *Pierius* diligently hath obſerved. Beſides the *Aſili* do trouble Oxen and all living creatures, according to that of *Heſychius*, μύωψ μυῖα τις ἐρεθίζουσα τὰς βοῦς ϗ πᾶν ζῶον ἐλαύνουσα, οἶςρος δὲ μόνον βοῦν, but the *Tabani* trouble Oxen only. To which agreeth that of *Orpheus*, verſ. 47.

> Νῦν δ' ἐπεὶ ἀεροφοῖτος ἀπέπλετο δῖος οἶςρος,
> Ἡμέτερον δέμας ἐκπρολιπὼν εἰς οὐρανὸν εὐρὺν, &c.
>
> *The horrid Brees mans body doth not ſpare,*
> *He flies from us into the open air.*

And *Homer* in his *Odyſſes*.

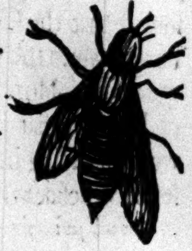
> Οἱ δ' ἐφοβοντο κτ' μέγαρον, βόες ὡς ἀγελαῖαι
> Τὰς μέν τ' αἰολος ἐφορμηθεὶς ἐδόνησε
> Ὥρῃ ἐν εἰαρινῇ, ὅτε τ' ἤματα μακρὰ πέλονται.
>
> *But they fled home as herds of Oxen doe,*
> *When that the Brees doth force them for to goe,*
> *In the ſpring time when daies do longer grow.*

Where the *Scholiaſt* thus defines this kinde of Fly, Οἶςρός ἐςι ζῶον ὑπόχαλκον τὴν μορφὴν, *&c.* The Fly called *Oeſtrum* is of a yellowiſh colour, who when it enters the ears of the Oxe, cauſeth him to run mad: upon which *Callimachus* in imitation of the Countrey people cals him βοοσόον, *an Oxe-driver.* But the *Myopes* or *Tabani* do ſet upon Men, Horſes, yea and Serpents (as *Nicander* affirms). Their ſhape and form is alſo different, as the *Philoſopher* ſheweth *De part. Anim. l.* 2. in theſe words: The tongues of the *Aſili* and *Tabani* are alike, of a purple colour; yet theſe dare ſeize upon men, the other upon Oxen only. Now the *Aſilus* hath a green head, and the reſt of his body all over yellowiſh, having a greater ſnout than the *Tabanus*, but making not ſo great a noiſe, or buzzing; he carries before him a very hard, ſtiffe, and well compacted ſting, with which he ſtrikes through the Oxe his hide; he is in faſhion like a great Fly, and forces the beaſts for fear of him only to ſtand up to the belly in water, or elſe to betake themſelves to wood ſides, cool ſhades, and places that the wind blowes through. For whileſt they ſtand in the cold water they flap their wet tails all about their bodies, and ſo cauſe him to be gone. The *Scholiaſt* of *Nicander* ſaith that they are bred of Horſeleeches. As if he would have us to underſtand Horſeleeches by thoſe flat creatures (of which *Ariſt.* makes mention before) and yet it is againſt nature or experience that bloud-ſucking mothers, ſhould bring forth a bloud-ſucking brood. He flies exceeding ſwiftly; drawes bloud with much pain.

Pennius hath ſet down 2 very rare kindes of *Aſili*, one of which was ſent him out of *Virginia* by *White*, the other out of *Ruſſia* by *Elmer* a Chirurgeon for a great preſent. That out of *Virginia* was full as big as the biggeſt Flies, having a reddiſh head, and very like in ſhape too, but only that the head was black, and had from the ſhoulders a white ſtreak drawn to the mouth, having alſo bigger and blacker eyes. He had in his mouth a long ſting and very ſtrong, his ſhoulder of a blackiſh brown colour, from whence came forth two wings of a ſilver colour, to the tail downward, it had ſix or ſeven joynts or fiſſures, of a whitiſh colour, all the reſt of the body blackiſh. In ſwiftneſſe of flight inferiour to none, ſurpaſſing the moſt; his belly was between an aſh and yellow colour, or a pale green. That of *Elmer* which came from *Moſcovia*, had ſilver wings longer than the whole body, great eyes, very long, taking up almoſt all the head, a black bill or beak, hardiſh, tripartite, with which out of hand ſhe penetrates hoſe lined with a three double cloth, skin, fleſh and all, ſucking it with great pain. As for the Generation of the *Aſili*, or the Fly with great eyes: I wonder at the inconſtancy of the *Philoſophers* opinion thereupon. For firſt he makes them to come of a little flat creature ſwimming in the water (which the *Scholiaſt* of *Nicander* not unfitly cals βδέλλαι, *i. e. Hirudines*, in Engliſh *Horſeleeches*) and in the 8. of his Hiſtory, he will have them the off-ſpring of the Gnats, in theſe words: ἔνια δὲ τῶν ζώων πρῶτον ζῇ ἐν τῷ ὑγρῷ, ἔπειτα δὲ μεταβάλλει εἰς τὴν ἄλλην μορφὴν ἔξω ζῶον ἐπὶ τῶν ἐν τοῖς ποταμοῖς ἐμπίδων, γίνεται δ᾽ ἐξ αὐτῶν ὁ οἶστρος: Some living creatures live firſt in moyſture, and after that they change their ſhape and live out of it, as it fals out with Gnats about rivers, from which proceeds the Brees. But how that can be I know not: For of creatures that have wings, it is impoſſible that other winged creatures of a diverſe form ſhould be generated, as the diligent obſerver of Nature may eaſily gather. And ſo much of the Oxe-fly which the *Goths* call *Heſtabryviſs*: but the *Engliſh* have no name for it. [Wherein the Author ſeems to me to be miſtaken, becauſe it hath afforded it a very proper name as is aboveſaid].

The Bee Fly.

The other *Tabanus* or *Aſilus* is begotten in the utmoſt part of the combs, and exceeds in bigneſſe any Bee whatſoever; which, becauſe he is ſo troubleſome, not ſuffering the Bees to be at quiet (as the former would not ſuffer the cattel) the Greeks have comprehended under the ſame name of *Oeſtrus*. The head of this Fly is of a bright bay colour, with a white ſtreak running from his forehead to the nape of his neck, his ſhoulders and back of a duskiſh colour, in all parts elſe no way differing from the common ſort of Flies.

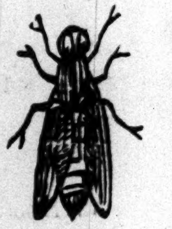


He feeds not only on the juice of flowers and honey, but on the bloud of beaſts, which with great tediouſneſſe and pain he ſucks out.

The ſecond kinde of *Tabanus*.

Gnat like.

There is another Fly much of the ſame ſort, with a head and body more inclining to green. His ſhoulders ſhine with greenneſſe, wings he hath two, whitiſh in the middle and outward parts, but are otherwiſe blackiſh or dunniſh. This only once *Pennius* ſaw it it *Hanworth* in the year 86. in the moneth of *Auguſt*. In the year 82. he found in *England* two other ſorts of Flies like Gnats; one of which had a pretty big body, of yellow and red colour; it had two wings, the head very long, the tail reddiſh. The other alſo had a long head, long and ſlender ſhanks of a very ſad black colour: the latter were longer than the former which he ſtretched at length when he flew and let hang down.



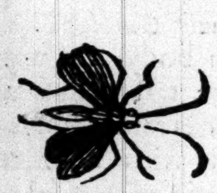
A Countrey-man there was that affirmed for certain, that out of their eggs (for he had obſerved them coupling together) came thoſe worms that uſually eat the leaves of trees.

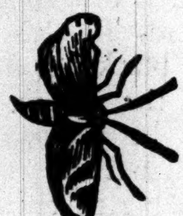
Tabanus.

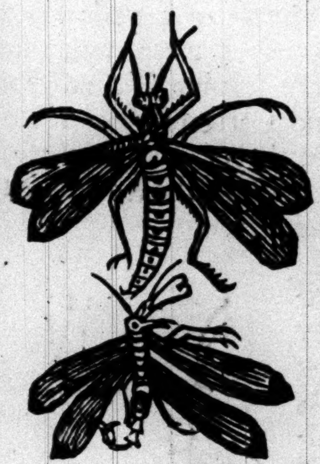
The Fly called in Latine *Tabanus*, is of the Greeks called μύωψ, by reaſon perchance of its ſtinging or pricking, for μύωψ ſignifies alſo a ſpur wherewith horſes are pricked or ſpurred. The French call it *Tahon*; the Italians, *Tabano*; the Spaniard, *Tavano*; the Germans, *Braem*, *Knſlyege*, *roſs muck*; the Brabanters, *Rochleghebrem*; the Polonian, *Kirowia muka*; the Engliſh, a *Burrel-fly*, *Stowt*, and *Breeſe*: and alſo of ſticking and clinging, *Cleg* and *Clinger*. This *Calepine* more boldly then truly ſaith hath four wings. But with more judgement *Ælian* and others, ſay it hath but two ſilver white. The whole bulk or body is very long, divided into three principal parts, the head, ſhoulders, and the ventricle or belly, diſtinguiſhed with five or ſix clefts or inciſures, the whole body of a blackiſh white, in the mouth of it it carries a ſtrong, long, and browny *Proboſcis*; it hath ſix black feet, in all parts elſe repreſenting much the Dog-fly. In the moneths of *July* and *Auguſt*, by reaſon of the extremity of heat they are moſt fierce, and do miſerably handle Oxen and Horſes and young cattel, unleſſe protected with fly-flaps, boughs of trees, or plants: which they follow by ſent of their ſweat, becauſe they cannot reach them with their ſight, being very weak ſighted, from whence the infirmity of the eyes called purblindneſſe is in Greek termed μυωπίαν. They are generated ſaith *Pliny* of the worms that come out of the wood putrefied. Which ſome cunning men before they have wings did uſe to binde about the wriſt of the left arm as a remedy againſt Quartain Agues. They ſuck out bloud with ſuch force and in ſo great abundance, that a friend of mine whom I dare believe told me, that his horſe being tyed to a tree, was by reaſon of the multitude of them, killed in leſſe then ſix hours, they had drawn out ſo much bloud that the ſpirits failing he fell down dead. By theſe things it is manifeſt, that the *Tabani* are of a different nature from the *Aſili*, notwithſtanding that moſt of the Greek and Latine Authors do ſeem to confound them and make them all one. Yea even *Geſner* himſelf in this very matter could not tell what to ſay in his book *de Quadrup.* and indeed unleſſe it were only *Pierius* and my friend *Pennius* now deceaſed, no man as yet found the difference between them. *Ardoinus* is here deſired to be cenſured in the firſt place, becauſe he ſaith that both the *Tabanus* and *Aſilus* have ſtings in their tails as the Waſps have: and ſecondly, becauſe he makes them to have eight feet, whereas none of them in the world was ever known to have above ſix. Laſtly, he reckons them in the claſſis or rank of Gnats, whereas the Gnat never bites in the heat of the day (as the *Aſilus* and *Tabanus* do) but altogether in the night at what time they are very irkſome indeed.

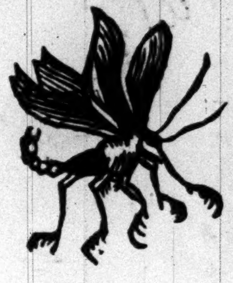
Next to theſe is another Fly ſhrewdly annoying cattel in the heat of the day, which *Pennius* cals *Curvicaudam*, very well in Engliſh a *Wringle-tail*, in regard that alwaies ſitting upon the buttocks or belly of the beaſt, he bends his tail towards him with his ſting ſtarted, that he may be ready to ſtrike at pleaſure, whenſoever opportunity may offer it ſelf. This Fly the Engliſh in their proper tongue call a *Whame* and a *Burrell-fly*, and it is ſcarce found any where elſe but in *England*. This kinde of Fly is almoſt like the Bee in ſhape and colour, only it is bigger in body. It doth not cleave to the fleſh, nor ſuck bloud as others do, but only ſtings with its tail, flying a long way after horſes, and ſtinging them in their travel. Horſes are naturally afraid of this Fly, whom upon the leaſt touch they endevour by what means poſſible with their tails, feet and mouths to drive away. Some are of a minde that theſe flies do not indeed uſe a ſting, or prick, but with their tails they faſten their dung to the horſes hair, from whence a while after come a number of very irkſome Nits. But experience muſt prove that, for reaſon in a matter ſo improbable is ſilent. True it is they are very violent upon their prey, as being blinde both the *Tabanus* and the *Wringle-tail*, which may be the reaſon why they are ſo bold and fearleſſe, as being ſecure of any danger. But eſpecially the *Oeſtrus*, from whence thoſe famous Poets of old were ſaid to be *Oeſtro perciti*, ſtung with this furious Fly called *Oeſtrum*. *Plutarch* cals them οἰστρηλατουμένους, *Gad-ſtricken.*

Thoſe kinde of Flies that follow are more rare.

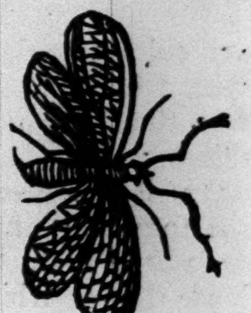






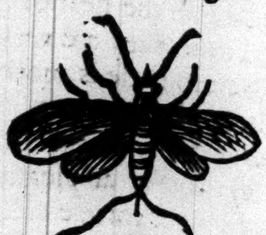


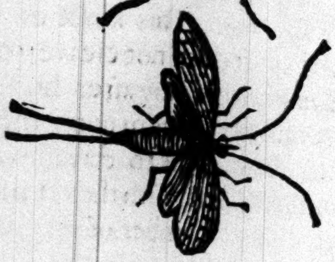
The firſt of which is very like the leſſer Butterfly, with four ſilver wings full of blackiſh ſpots, all the body over adorned with ſilver ſtreaks running athwart of it, the tail reddiſh or browniſh, the head black, the ſhoulders of the ſame colour with the tail, the fore-yards are thin, black and ſhort, the feet ſmall and black; they are moſt commonly ſeen in hedges, eſpecially in the morning. The ſecond very little differing from the former, but that the body, ſail-yards, legs and feet are of a browniſh or duskiſh colour. The third ſpecies hath four wings: this hath longer wings than the two former, ſpotted with black ſpots, the head ſomewhat bigger, black, here and there marked with yellow ſpots; the two ſail-yards thin and black, ſix whitiſh feet faſtned to the more bulky breſt, the ſhoulders are embroidered with yellowiſh white ſpots, overthwart the back are five ſtreaks of a yellow colour, with a little ſpot or ſpeck between each almoſt of the ſame colour; in the tail there are five red ſpondils, the end of which is forked. The fourth is not much unlike, but it hath ſilver wings, without ſpots, the ſail-yards black and ſomewhat longer, the body is adorned with ſeven white lines athwart. I have ſeen alſo two Flies with tails like Scorpions. The firſt of them, as the former ſpoken of, hath ſilver wings, but ſomewhat leſſe, with three croſſe black lines towards the end, the head black, the breaſt, the feet and ſhoulders whitiſh: the reſt of the body black, the tail hath five joynts as it were or partitions, three of which are of a pale red, the reſt black, the end of the tail forked, the forks are black, and like the Scorpion turned up. The other almoſt like to it, but the very end of the tail is more thick, the fork that is in it more blunt, the head dunniſh, the mouth ſomewhat long, each wing bedeckt with ſix black ſpots. There is alſo another ſort of Fly that hath four wings, the body greeniſh, the four wings longer than the body, made as it were of melted ſilver, the nerves whereof are greeniſh, the ſail-yards thin and black, eyes as yellow as gold, from whence it hath the name, and that not undeſervedly of *Chryſopis a golden eye*, ſlow in flight, of a very

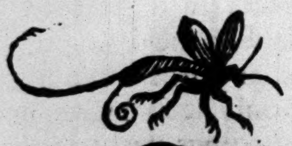


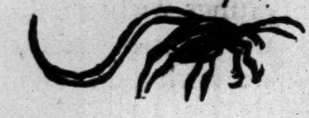
ſtrong ſent, which like the Moth it loſeth with the life. A great frequenter of gardens and ſitting on Elder: whether he come of a Caterpillar, as the Butterfly doth, or out of the worms of trees, I cannot tell. That moſt learned and courteous Gentleman *Joach. Camerarius* firſt ſhewed it to *Pennius*.

There are ſundry ſorts of Flies, of the Greeks called τρίχουροι, in Latine, *Pilicauda, Seticauda*; in Engliſh *Hair-tails*, or *Briſtle-tails*. For ſome of them have one, others two, otherſome yet three or four briſtles in their tail: of which in order.

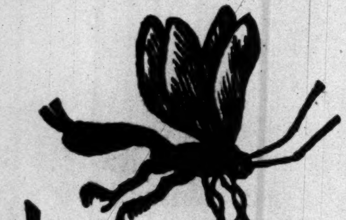


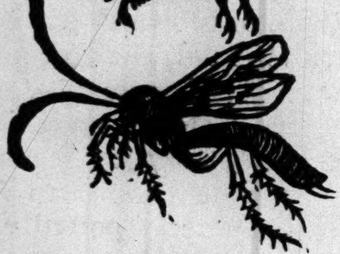


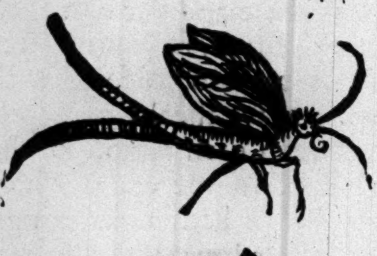


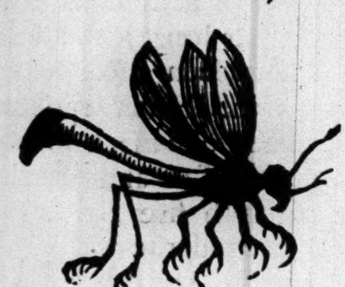


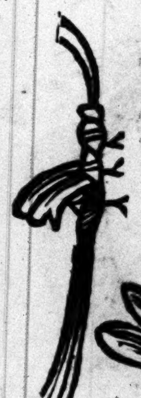
The firſt of theſe called *Henothrix* or *Uniſeta*, is a fly that hath a tail, the whole body is black except the middle or the back and belly that are red; it hath two ſilver wings, the ſhoulders thick, with two little black ſail-yards, and a long briſtle ſhot forth of the tail of it. The figure of this Fly did the aboveſaid *Joachim* ſend to *Pennius*, withall atteſting that it never offered to light upon any other herb but the chiefeſt *Ameos*. Διπλότριχες, are two Flies that have two hairs in the tails of them; whereof ſome have bodies ſharp or piked at the end, others more blunt. Of the former ſort, two I have ſeen with four ſilver wings without ſpots, head and ſhoulders blackiſh, the reſt of the body dunniſh, bedecked with divers croſſe lines of black. Both theſe had long and ſlender ſail-yards, and the like in the tail, only ſomewhat longer, the body big and bulky. Thoſe of two hairs or briſtles are of five ſorts: the firſt, in all things like thoſe with a hair, but that theſe are almoſt all over yellowiſh, it hath two very long briſtles in the tail, one of which being ſtretch't out at length is like the tail of a Greyhound running after a Hare; the other rivelled inward is like a ſpiral line. The ſecond ſort, is a kinde of long Fly, having four ſilver wings, yellowiſh feet, the body black, ſhoulders thick, two ſail-yards long and ſlender, the belly toward the tail, bigger then the reſt, out of which two ſhort briſtles do iſſue, turning upwards; it lives in hedges. The third of theſe *Carolus Cluſius* ſent from *Vienna*, with a duskiſh dark coloured body, the wings large in a mixture of blew and ſilver colour, the tail acuminated or piked, out of which grow two briſtles or plumes rather (as *Pennius* obſerves) of a Partridge colour ſpeckled, with black and dunniſh ſpots intermingled. The fourth kinde is of a round orbicular body, about an inch in length; the head, ſhoulders and breaſt very black, the horns ſhort, it hath ſix black feet faſtned to the thick breaſt, the foremoſt ſhorter than the reſt, the hindermoſt the longeſt: when ſhe flies ſhe puts her feet together and lets them hang down, it hath four darkiſh wings of a ſilver colour, her eyes black and ſhining, the utmoſt tip of her tail black, out of which peep two very ſhort briſtles from the ſhoulders downwards to the middle of the tail; ſhe is almoſt of a yellowiſh colour; the tail is joyned to the ſhoulder as it were with a long threed: it runs very nimbly and as it were leaping; her neſt is under ground, ſhe feeds upon ſmall Flies and Catterpillars. The fifth and laſt ſort of theſe, is by much the leaſt, yet of the ſame form and figure, only it hath very bright ſilver wings; the whole body to the tail is of a tawny or darkiſh red colour.

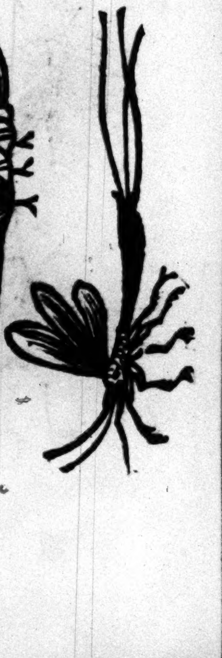




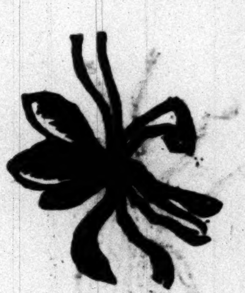




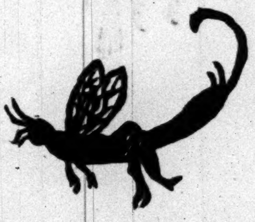




Of thoſe that have three hairs or briſtles there have but 5 ſorts come to my notice. The firſt hath a body very long and black, the middle very red from black, with two black horns in the head, ſilver coloured wings, the very edge or extremity whereof is ſpotted with a blackiſh ſpot, the thighs or ſhanks reddiſh, in the tail it hath three long hairs or briſtles, and flies very ſwiftly. The next is like to this, but leſſe, all over black, longer than the former, thinner and ſlenderer, it hath ſilver wings alſo, the cornicles or horns all one with the former, it alſo thruſteth forth three long briſtles at the tail, not ſo ſwift in flight by much as the former. There is another of this kinde all over whitiſh, but only the wings, which are ſpotted with four black ſpots; the utmoſt of which are larger, the others ſhorter, which ſo

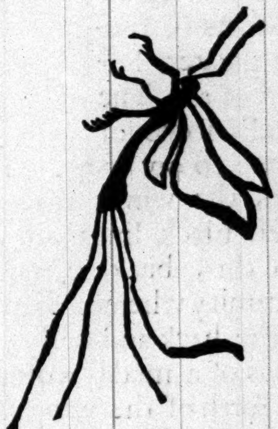


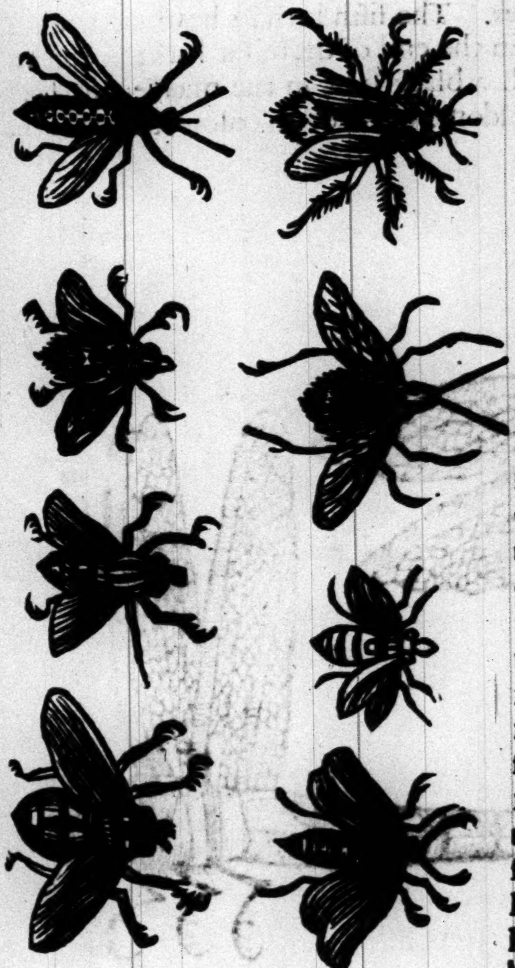
ſo long as ſhe flies not, ſtand bolt upright: ſhe hath ſix feet, the four leſſer of them faſtened to her body, the two foremoſt are greater and black, coming as it were out of the neck, between the two black round eyes which ſtandeth forth of the head come forth two black ſhort horns; the body thin, round, long, about a fingers breadth; in the tail are to be ſeen three briſtles as long as the body, the which when ſhe flies ſhe puts into the form of an exact triangle. In the moneths of *May* and *June* before and after rain ſhe is to be ſeen; ſhe flies ordinarily about rivers with ſome company with her, with whom ſhe ſeems to ſport her ſelf by the way; ſhe uſeth her forefeet ſometimes to feel whether any thing lie in her way, extending or ſtretching them forth in manner of little horns. Such a one as this *Pennius* took notice of in the year 73. The fourth of theſe is of an admirable ſtructure, it hath two ſilver wings, the body black, the mouth forked and Eagle-bill'd, in the forehead ſprout out two little ſhort horns, it hath only four feet, two under the breaſt ſmall and ſhort, the other two a little below firm and ſtrong; out of its tail which is very long iſſue two very ſhort briſtles, and between theſe, one of a great length and blunt at the end. This kinde of Fly *Pennius* remembers that he ſaw only once about *Hinningham*, ſometime a fort belonging to the Earls of *Oxford*. The laſt of all both body and tail is all black, it hath a very long body, two wings ſomewhat ſhorter then the body, the feet of a reddiſh yellow, the tail altogether as long as the body, ſeen only once of *Pennius* about *Greenhive* in *Kent*.

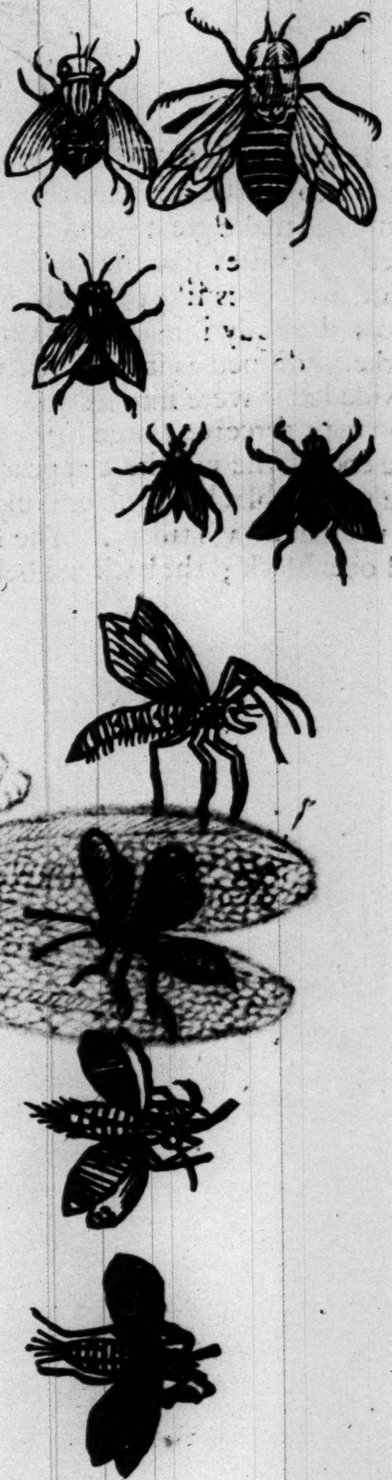


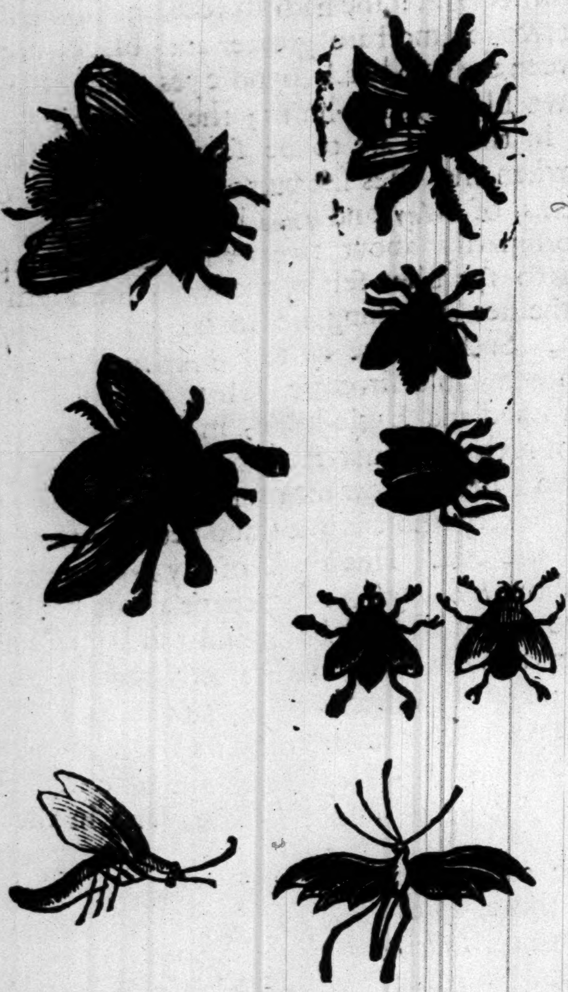
The Fly with four hairs repreſents the firſt of thoſe with three hairs, only its tail is ſomewhat bigger at the latter end of it, the feet as alſo the horns black, the wings long, the outermoſt three times exceeding the innermoſt in bigneſſe, having a black ſpot in the middle, and in the tail four hairs or briſtles.

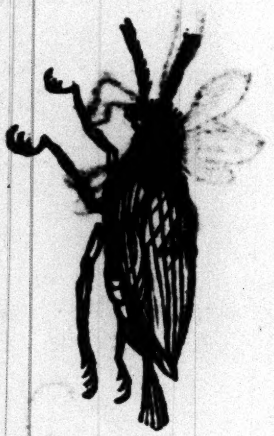
To theſe are to be reckoned thoſe Flies called in Latine, *Mullei*, *Pavones* and *Libellæ*; which the Greeks from the likeneſſe of a fiſh of that name called ζύγαιναι. In Engliſh they are called *Adders*, *Boults*, *Dragon-flies*, and *Water-butterflies*; becauſe they are ſeldome ſeen on land, but alwaies about waters, as rivers, or fens. The Italians call them *Cevettoni*; the Hollanders, *Romdoubt*: for the form or ſhape of their bodies they differ little or not at all, but only in colour; ſome of them have bodies two inches long, long and ſlender withal, in form of a pipe or cornet: and theſe conſiſt of three parts; the head, breaſt, and the reſt of the body which is in ſtead of a tail. The head with two great goggle eyes, of the ſame colour with the reſt of the body, is made faſt to a very ſhort neck, to which the fore-feet are joyned, all the reſt being annexed to the breaſt. The hinder feet likewiſe are the longeſt, the better to lift up and ſtay their bodies. All of them

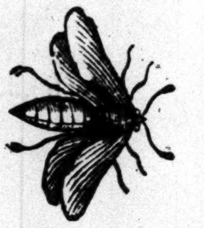








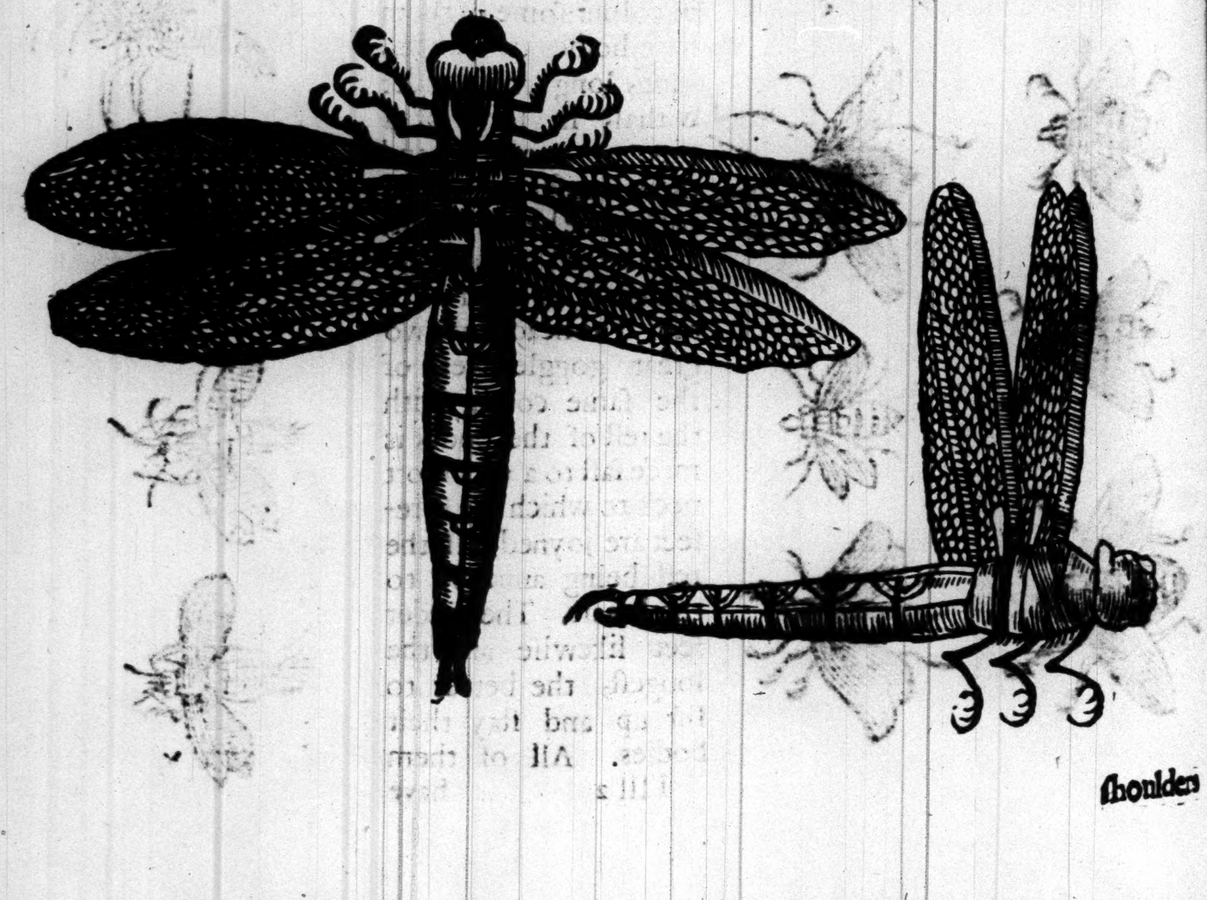


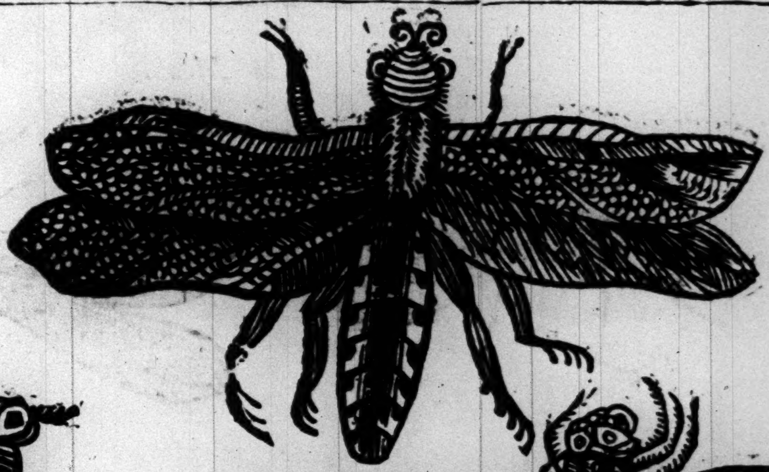


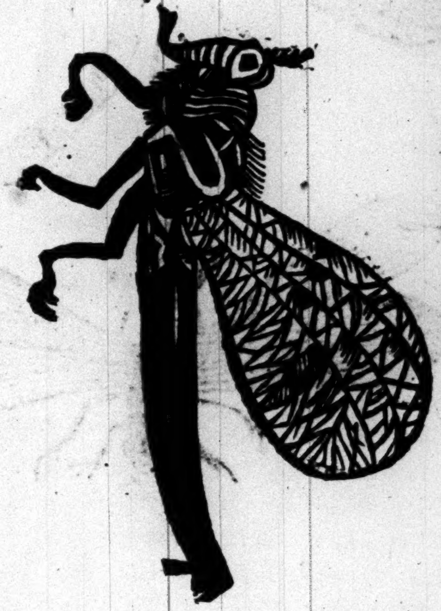
have forked tails, and with theſe they couple, remaining long in the act of generation. Countreymen for the moſt part of them, are of opinion that theſe Flies are ingendred out of the worms that grow from the water-bulruſh putrefied; which if I ſhould yeeld to be true, yet doth it not take away copulation, and putting forth of worms from their own bodies, whereby they might from time to time increaſe, and perpetuate their propagation.

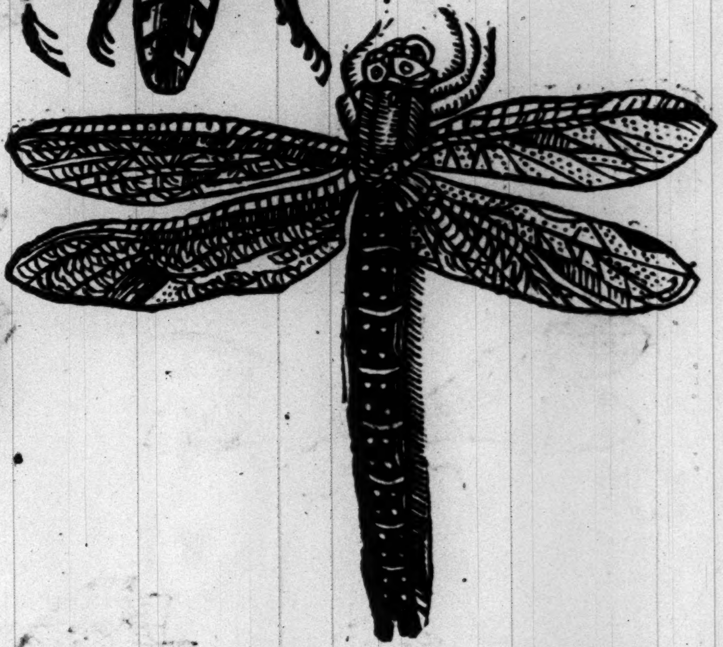
The leſſer of them are very ſlow of flight, the greater very ſwift, and are only to be ſeen in heat of Summer. Of theſe we have obſerved three ſorts or ſpecies: The greater, leſſer, and leaſt of all. The biggeſt of all, ſome of the Engliſh call *Briſes*. Of which ſort eight only have come to our view. The firſt greeniſh, the ſpots alſo in the neck and tops of the ſides of a dark green, the wings ſilver coloured, they are ſwift and make great ſpeed in their motion. He hath ſeven black lines athwart the back, and feeds upon flies like the Swallow. The ſecond is like to this, but of a more dark hew. The third hath eyes like to pearls, ſilver wings, the hem or extremity whereof is ſtained with a dusky ſpot, the body is black, but very ſeldome yellowiſh on the back and belly; the tail black and forked, adorned as it were with two plumes. The fourth is of a muddy colour, having the ſides divided as it were into ſix parts; neat about the coming forth of the wing which are like ſilver, you may perceive a large black ſpot, diſtinguiſhed in the middle with lines of mud colour, toward the end of the tail there appear four or five hairs or briſtles. The fifth hath its head and tail gray, the mouth black, the ſilver wings marked with one ſpot, in the end of the tail it hath three briſtles in manner of a Trident. The ſixth is ſilver winged, with a black ſpot in the middle, the body all over black; the back and belly ſometimes, but that ſeldome of muddiſh colour, the breaſt and

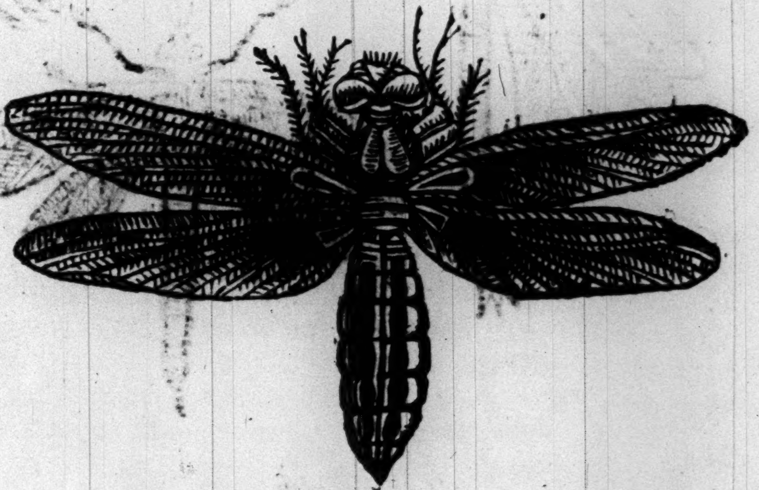
The greateſt Libella.

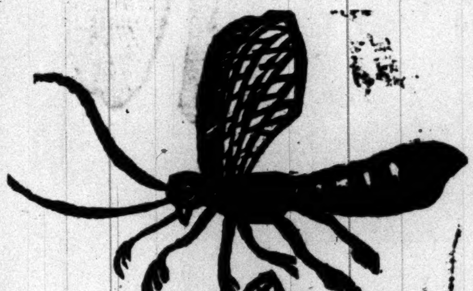


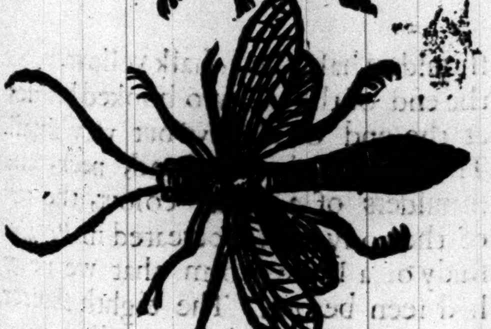


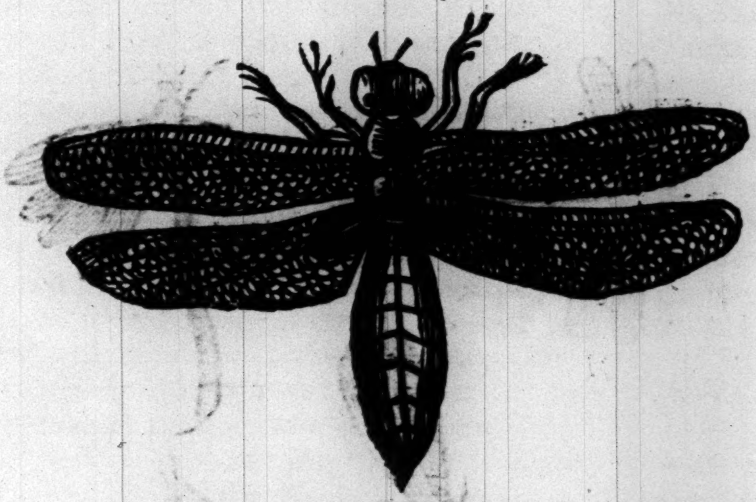




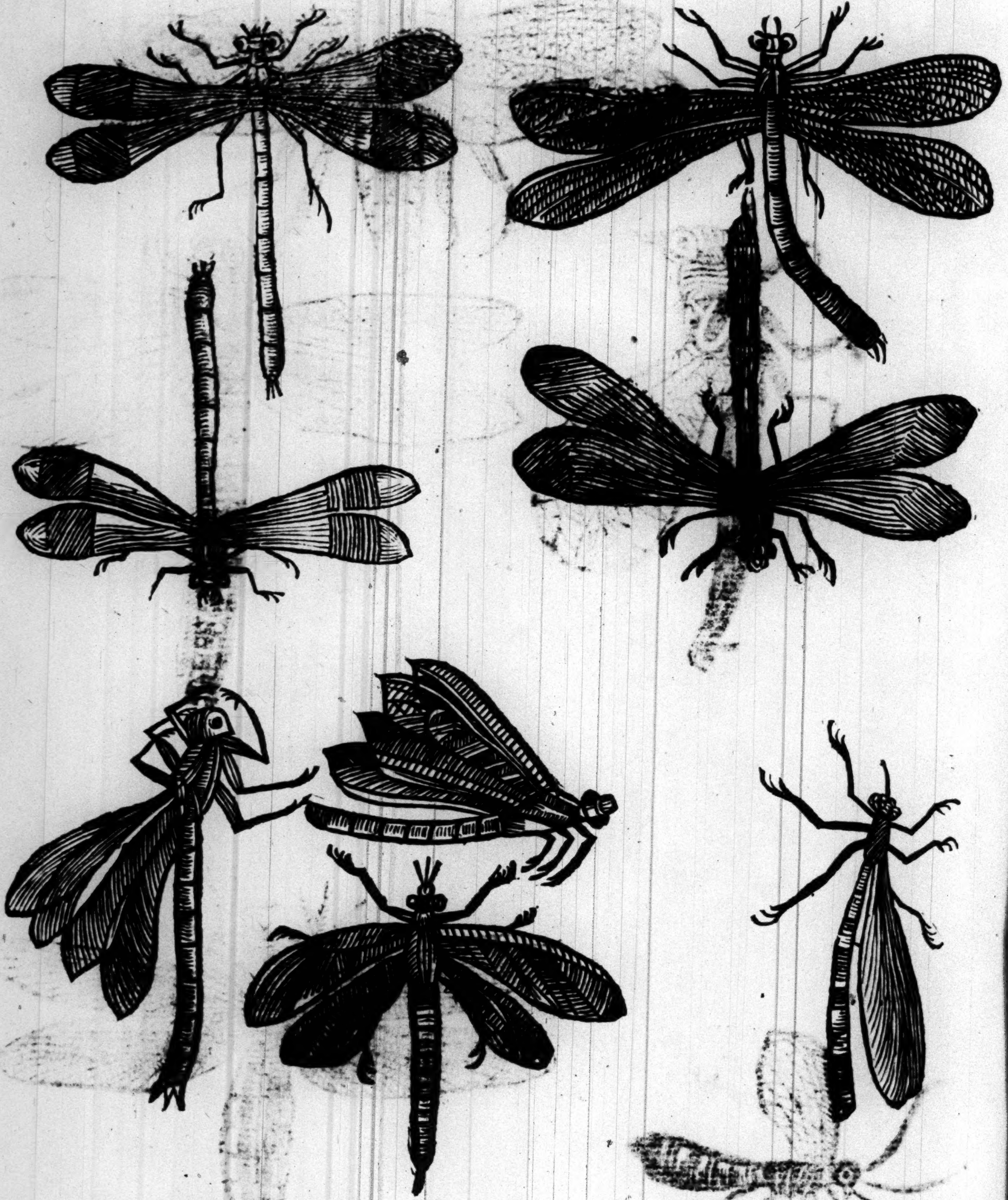




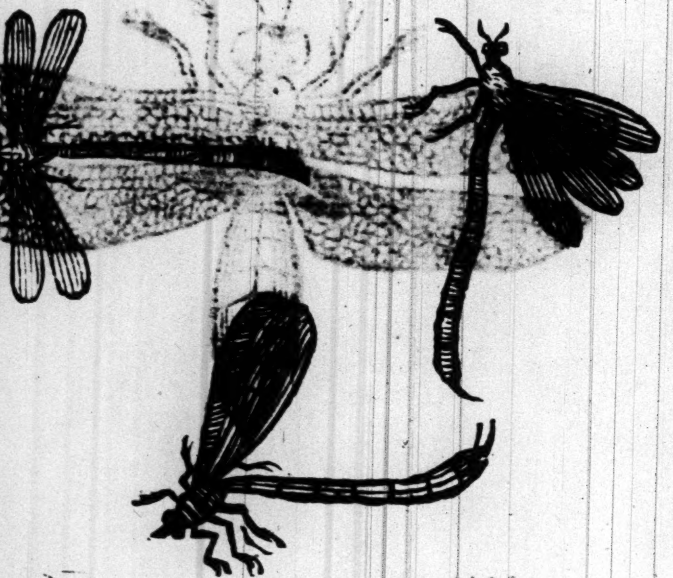




The Mean.



The Smalleſt.



ſhoulders half black, half yellow, under the end of the tail two hooked briſtles, at the end of all five but very ſmall. The [illegible] hath head, neck, and ſhoulders of a [illegible] colour, the reſt of the body [illegible], was created in *Pennius* ſtudy of a little worm that we never had ſeen before. The eighth ſhorter then the reſt, with eyes like pearls, the body all over of a yellow colour, except where it is thwarted with croſs ſtreaks or lines, the tail ſeems as if the end were cut off, the but end thereof more broad, the extremities of its ſilver wings are darkned with a black ſpot, they are to be found moſt commonly amongſt the corn.

The middle ſort of the *Libella* do

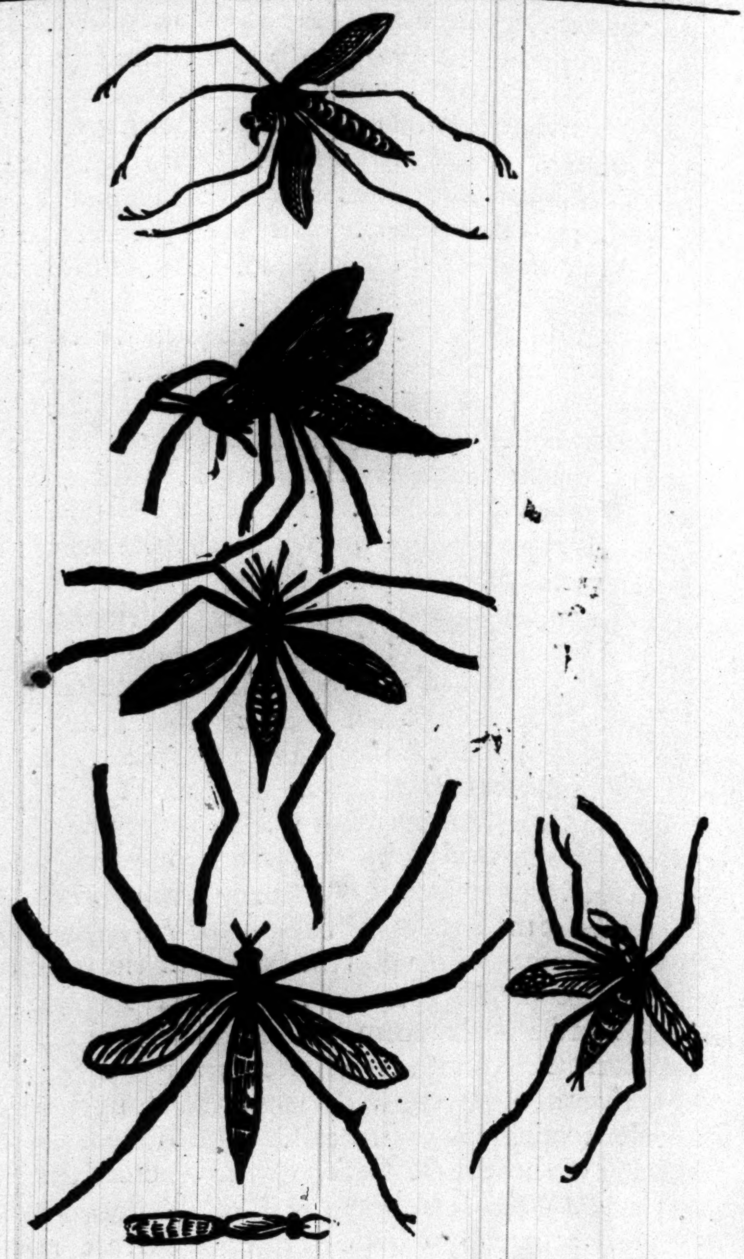
ſet forth Natures elegancy beyond the expreſſion of Art. The firſt is of a moſt curious colour. The body blue or sky colour, the wings of bright violet colour, the ſpace between the ſhoulders is adorned with four golden gems, ſet as it were in a blackiſh collet. The ſecond hath the head and body gray, the wings whitiſh, which are beautified with gray lines drawn quite through them, in the middle they are of a purple colour. The third hath its head and body of a greeniſh colour, the lines of the wings are marked as it were with bloud colour ſtreaks, towards the edges or outmoſt parts like to a dark purple. The fourth ſeems to be all over of the ſame colour, to wit, of a duskiſh colour mixt with a pale green. The eyes of the fifth are blue, the head green, the whole body mixt of green and blue, except the wings, which are moſt accurately wrought with ſilver colour and black, in the middle ſhadowed with a dark purple. The ſixth is all over green; yea and the wings themſelves are of light green.

I have ſeen four of the leaſt ſort of the *Libellæ*. The firſt the body all over of a bright blue colour. The ſecond red, the wings alike to both of them a ſilver colour. The third yellowiſh, but the tail more thick; the edges of the wings (as alſo all the lines that run along them are red and marked with a bloud colour ſpot. The fourth which is the leaſt of all, hath a long ſpiny tail, a great head, blue eyes ſtanding out with two little horns to guard them; the body ſomewhat long, ſlender, underneath greeniſh, above blackiſh, on the back it hath two greeniſh lines or ſtreaks drawn along from the head to the riſing of the wings, the tail bound together with five joynts or knots, in the end whereof is a ring of bluiſh colour.

One there is of this number which killeth ſome of the other bigger very ſpeedily: of a thin gray coloured body, and the wings alike coloured, and when he creeps into an apple, no hole can be ſeen where he went in: he feeds alſo upon ſeeds. This Fly *William Brewer* a learned man and an excellent naturaliſt ſent to *Pennius*. There are found in the leaves of young Fennel Flies of an exceeding ſmalneſſe, inaſmuch as ſometimes they are ſo little, that they are not able to be ſeen; they run and fly very ſwiftly, inſomuch that you would wonder how it were poſſible for nature to faſten feet and wings to ſuch very exceeding ſmall bodies.

Water Flies, of the Greeks called ἰλίοι, or *Lacuſtres*, as abiding in fenny places, are thoſe that feed upon things that ſwim upon the ſurface of the water, and that live eſpecially upon the water, as theſe and the like, *Phryganides*, *Macedonica*, *Tigurina*, *Æſchna*, *Lutea*, *Fuſca*, *&c.* *Phryganides* comes from the little worm *Phryganium* (which in Engliſh is called *Cados worm*) living in the waters, and in the midſt of *Auguſt* aſcending to the top or ſuperficies of the waters; it hath four wings of a brown colour, the body ſomewhat long, having two ſhort horns, the tail forked, or rather briſtles coming out of the tail. The form or figure of this Fly is various, in regard of the great variety of thoſe little Cados worms whereof they come.

Among the *Macedonians* about the River *Auſtraum* which runs in the midſt between *Beroza* and *Theſſalonica*, there fly a kinde of Flies, which are not every where to be found, neither are they any way like other Flies, they are neither like the Bees, Waſps or Hornets, yet reſemble all in ſomething, in bigneſſe the Hornet, in colour the Waſp, in humming the Bee; in audacity and boldneſſe all the reſt of the Flies; the country people call them ἱππούρους, the Latines *Equiſeles*; theſe flying upon the ſurface of the waters become a prey to the fiſh that are in the river. The greater ſummer Water-fly is ſeen in *Helvetia* in the moneth of *May* (commonly cald *Tes glaſſt*) as we have heard reported by a Gentleman, but which we leave to thoſe of that Countrey to deſcribe. The *Æſchna* ſo called, are a kinde of Water-fly of an aſh colour, with four wings, ſix feet, near the tail having as it were many downy hairs. The Water-fly called *Lutea* is of a yellowiſh dun colour, it hath long wings, alwaies ſtanding bolt upright upon the ſhoulders ſo long as it flies, the eyes big and ſtanding out of the head, the tail long and knotty, having two long hairs or briſtles at the end of it; ſhe is converſant alwaies about rivers, ſeldome elſewhere, eſpecially after rain. There is another of a dun colour with four long wings, and long ſhanks, the body full of joynts, two long horns it carries in the forehead, the head little, the eyes blackiſh and ſtanding out of the head, the wings dun, but a little more bright then the reſt of the body. For the moſt part found in woods adjoyning to fens and ſtanding waters. To conclude, I ſhall relate amongſt the rarer ſort of Flies, that of *Cardane*, as he himſelf deſcribes it. Thus: I have ſaith he a little creature like to a Beetle, of no unſavoury ſmell, ſoft, and the ſwifteſt of all that ere I knew of Inſects, it is of a dark yellow, not black, with ſix feet, and two very ſhort thin wings not covering the tail; the tail is of the ſame figure and form with the head, inſomuch that you would think it had two heads; for as it hath a mouth in the upper part of the head, and two ſmall cornicles there under the chin, ſo it hath two others alſo in the lower part longer then the creature it ſelf, as many likewiſe in the tail, but theſe ſhorter then the two longeſt in the head; only the uppermoſt of thoſe are longer and thicker then the lowermoſt. Which rare creature I wiſh I had ſeen with *Cardanus*, that I might have here added to this deſcription the figure of it. There is alſo beſides theſe a Water-fly, which men call from the length of the feet or ſhanks of it, *Tipulam*, *Macropedium*, *Pedonem*, *Gruinum*; called therefore in Engliſh a *Crane Fly*. Of theſe Flies, are found four ſorts. The firſt ſpecies hath long ſhanks like a wood Spider, the body almoſt ovall of a whitiſh aſh colour, ſilver wings, black eyes ſticking out, with two very ſhort horns, the tail pointed or piked. It flies (much like the Oſtrich) hopping with the feet, ſometimes it flies in the air but not far nor long. So greedy after the light, that it oftentimes is burnt in the candle. In Autumn it is frequently ſeen in paſtures and meadowes. This of the male kinde. The female is almoſt alike, but ſomewhat more black, the end of the tail as it were bitten off; theſe are called in Engliſh *Shepherds*, in Latine *Opiliones*, becauſe they are moſt often ſeen where ſheep uſe to feed. The ſecond ſort of *Tipula* hath a great head, eyes ſtanding out, four ſmall horns, the body pleaſantly various with the colours yellow and black interchangeably mixt. The third is almoſt like unto this, ſaving that the body being all yellow, is better ſet out with ſix or ſeven black ſpots; both the male and female have a three forked tail. The fourth ſpecies is very rare and curious, the head and eſpecially the mouth forked, the ſhoulders ſwelling, the feet ſhorter, the body twice as thick as the reſt; the back black, the belly and ſides yellow, the tail black and picked. It lives in hedges in the Summer, and is ſeldome found in open fields. Thoſe *Tipula* or *Crane-flies* aforeſaid do couple with their tails turned together, and ſo they fly; yet ſometimes they turn again as it were to embrace one another.



CHAP. XII.

Of the uſe of Flyes.

THeſe little creatures ſo hateful to all men, are not yet to be contemned as being created of Almighty God for diverſe and ſundry uſes. Firſt of all, by theſe we are forewarned of the near approaches of foul weather and ſtorms; ſecondly, they yeeld medicines for us when we are ſick, and are food for divers other creatures, as well Birds as Fiſhes. They ſhew and ſet forth the Omnipotency of God, and execute his juſtice; they improve the diligence, and providential wiſdome of men. All which ſhall appear in their places.

Preſaging of weather.

As for their preſaging of weather: when the Flies bite harder then ordinary, making at the face and eyes of men, they foretell rain or wet weather: from whence *Politian* hath it.

——————*Sitienſq; cruoris*
Muſca redit, ſummoſq; proboſcide mordicat artus.

English:

Thirſty for bloud the Fly returns,
And with his ſting the skin he burns.

Perhaps before rain they are moſt hungry, and therefore to aſſwage their hunger, do more diligently ſeek after their food. This alſo is to be obſerved, that a little before a ſhowre or a ſtorm comes, the Flies deſcend from the upper region of the air, to the loweſt, and do fly as it were on the very ſurface of the earth. Moreover if you ſee them very buſie about ſweet meats, or unguents, you may know that it will preſently be a ſhowre. But if they be in all places many and numerous, and ſhall ſo continue long (if *Alexander Benedict.* and *Johannes Damaſcenus* ſay true) they foretel a plague or peſtilence; becauſe ſo many of them could not be bred of a little putrefaction of the air.

Many waies doth nature alſo by Flies play with the fancies of men in dreams, if we may credit *Apomaſaris* in his *Apoteleſms*. For the *Indians*, *Perſians*, and *Ægyptians* do teach, that if Flies appear to us in our ſleep, it doth ſignifie an Herauld at Arms, or an approaching diſeaſe. If a General of an Army or a chief Commander dream that at ſuch or ſuch a place he ſhould ſee a great company of Flies; in that very place, where ever it ſhall be, there he ſhall be in anguiſh and grief for his Souldiers that are ſlain, his Army routed, and the victory loſt. If a mean or ordinary man dream the like, he ſhall fall into a violent Feaver, likely may coſt him his life. If a man dream in his ſleep that Flies went into his mouth or noſtrils, he is to expect with great ſorrow and grief imminent deſtruction from his enemies.

Their uſe in Medicine.

Nor do they only foretell ſtorms, that ſhall fall out ſuch daies, or ſuch times of the year; but they do afford much matter for Medicine, and cure for diſeaſes. For *Galen* out of *Saranus*, *Aſclepiades*, *Cleopatra*, and others, hath taken many Medicines againſt the diſeaſe called *Alopecia* or the Foxes evill; and he uſeth them either by themſelves or mingled with other things. For ſo it is written in *Cleopatra*'s Book *de Ornatu*. Take five grains of the heads of Flies, beat and rub them on the head affected with this diſeaſe, and it will certainly cure it. *Aſclepiades* uſed to take a great many Flies heads freſh pluckt from the body, and rub the part that was bare or bald with this diſeaſe, eſpecially if they were exulcerated. For the bloud of Flies (ſaith he) doth much help the parts that are exulcerated with Nitrous medicines, or are otherwiſe galled or fretted. *Soranus* uſed to mix a pot full of whole Flies dried to powder, with *Alcyonium*, quick Brimſtone, Gunpowder, ſowes Gall, and other like things againſt the Fox-evil. Some adde to theſe Bears hair, roots of Reed, and Fern, and bark of Cheſnut; and with which medicine they cure perfectly not only the Fox-evill, but whatever defluxion of hair, and the thinneſſe thereof however contracted; the place affected being only firſt rubbed till it be red again, with fig-leaves. Others uſe the bloud that runs out of the heads of Flies: otherſome apply the aſhes of them ten daies together with the aſhes of paper or nuts, ſo that the third part be the aſhes of Flies. Some others do temper aſhes of Flies with womens milk, or coleworts; ſome only with honey. *Pliny*.

After the ſame manner, *Haly* and *Marcellus* burn the heads of Flies and mingle them with honey in ſtead of an oyntment. *Braſſavolus lib. de morbo Gallico*, maketh uſe of both the bloud and the aſhes of Flies againſt the Foxes Evill. The like Medicine *Pliny* uſeth to procure hair on the eye-lids: Take of aſhes of Flies and Mouſe-dung of each alike mingled half a penny weight, add to it two ſixth parts of *Stibium*, and with theſe and *Oeſipus* or ſheeps fat anoint the part. Some preſcribe Flies with the roots of Docks for the Leproſie to be annointed withall. *Pliny* ſaith that there were ſome, that for the ſame cauſe did give 21 red Flies dead, in drink, but thoſe that were very weak a fewer number. That Flies are very good for ſundry diſeaſes of the eyes, not only *Haly*, *Galen*, *Pliny*, and *Archigenes* have affirmed, but alſo *Neotericks* or later writers, eſpecially for the Pin and web, Bleer-eye, ſquint-eye, and warts on the eye-lids. If the eyes be waſhed in the evening with water of ordinary Flies diſtilled in way of bath, for a moneths ſpace, it will cure them of all ſpots or films. If the hair be often wet with it, it will grow exceedingly. But the Veſſel muſt be buried in Autumn, and the Material diſtilled about Winter. With two drops of this water put into the ears, *Geſner* writes, the deafneſſe of them will be cured; and this Medicine he ſaith he learned of a Jew. *Mutianus* which was thrice Conſul, from obſervation, did hang a live Fly in a little linnen bag about his neck, wherewith the rhume or bloudſhot of them was cured, as *Pliny* affirmeth.

Flies in an odde number being rubbed together are reported to be very good to cure a fellon on the ring finger. Bean Flies drank with vinegar do drive forth a horſleech ſticking in the throat. *Haly Abbas*. The Fly *Napellaris*, of the herb *Napellus* or Wolfebane ſo called, doth not only cure the poyſon of that herb, but all other poyſon whatſoever, as *Avicen* witneſſeth, and *Julius Scaliger* confeſſeth: from whence this Antidote is made. Take round Birth-wort, Mithridate of each two ounces, *terra ſigillata* half an ounce, Flies of *Napellus* in number 18, juice of Citrons what may ſuffice, mingle them, make an Opiate. For (ſaith *Scaliger*) againſt the biting of the *Tarantula*, or any other venomous beaſt, or the poyſon of Wolfebane there is no Antidote comparable to this. The ſame do *Gainerius*, and *Petrus Apponenſis* teach us. Yea, moreover when as there is no Fly almoſt but will cauſe vomiting (as I ſhall make good out of *Arnoldus*) why may not all of them be thought preſervatives againſt poyſon? *Cardanus* in like manner commends the wormed Fly. *But it is beſt learning of medicines by hands and eyes*: καλλίστη δὲ ταῖς χερσὶ ϗ ὄμμασι διδασκαλία. *i. e.* by known experience, leſt while we affect unknown medicines we loſe the uſe of thoſe we know. He tels us that an oyl made of wood Flies was in great eſtimation; yet he telleth not us how to make or to uſe it. A Fly chewed and ſwallowed doth vehemently provoke vomiting. *Arnoldus*. I have heard of a certain man (ſaith *Geſner*) that was wont to take three or four Flies into his body, which gave him a very good ſtool. Take five grains of Broom-flowers, let them be put into an earthen pot, with butter here and there laid between them bed upon bed, with which the veſſel may be filled, and being very well cloſed, let it be buried in horſe dung, where the Sun uſeth to come, for the ſpace of one year; at the years end you ſhall finde the Flies turned into an Unguent; the which afterwards are exceeding good for any grief whatſoever in any part of the body, as I have learned of a friend of very good credit. *Nonus* adviſeth to take the bodies of great Flies when the heads are off, and rub'd between the fingers, and to anoint a ſmall impoſtumate ſwelling therewith, for a ſpecial remedy. *Fortius* the Poet affirms, that there was a *German* maid which lived three years with eating of Flies. If cattel cannot urine, or the urine ſcald their genitals, put but a live Fly into them, and it will give them eaſe. *Columella.*

Neither do they ſerve for the health of men and cattel; but withall do ſeem to be created for food and ſuſtenance of ſundry ſorts of creatures. For there are ſome kindes of Spiders which hunt after Flies and prey upon them. Swallows feed on Flies, and almoſt on them alone, as if they were to be ſuppoſed to be made only for them, inaſmuch as without them the Swallow could not live: and that the reaſon why in fair weather they hunt after them aloft in the air, in rainy below near to the earth. *Pliny* affirms that the Bird called *Himantopus*, makes them his chiefeſt food. There is a kinde of Duck called of the *Tigurini*, *Muggent* (as if you would ſay, the Duck that catcheth Flies) like to the tame Duck in bigneſſe, which greedily ſnatches up the Flies ſwimming on the water and eats them.

The *Chamaleon* which ſome have reported, but falſly, to feed only on the air, feeds on Flies, which with his tongue ſix inches long, putting it forth ſuddenly and waving it to and fro, he hits unawares, drawes to him and devours them, as I have ſeen with mine own eyes in the year 1571. All thoſe Birds called *Wagtails* (if I am not deceived) live upon Flies, but eſpecially thoſe that are whitiſh about the tails: in the German Tongue *todten 'uogel*, but others call it more properly *Muggen ſticher*; in Greek, μυιόφαγον; in Latine, *Muſcivorum*; in Engliſh, the *Fly-eater*, as being fed with nothing elſe, as *Bellonius* writeth. The bigger ſort of *Zigaina*, ſo called, feed on Flies which they catch as they fly, as Swallows do, and never miſſe one, as I have taken a great deal of ſport to behold. The worms of Fleſh-flies, which we Engliſh call *Maggots* and *Gentles*, Fiſhes are very much taken with; Anglers uſe to faſten theſe to their hooks to catch *Roch*, *Perche*, *Carp*, and other fiſh withall, very good they are for that purpoſe eſpecially if preſerved in honey. *Trouts* are taken with the *ground* or *Gaipath Fly*, but chiefly with the *dung Fly*; ſo that the Anglers uſe to faſten one or two of them to their hook, and with a ſporting, or rather cunning ſnatching back of their Line, do invite the *Trouts* more greedily to bite, and the bait being ſwallowed down to hang the ſurer. Others put as many of thoſe flies upon their hooks as they will hold, and plunge them quite down to the bottome, eſpecially where they know the greater *Trouts* uſe to haunt, who are very deſirous of the bait ſo laid before them, and by the their greedineſſe become a prey, and loſe their lives; as *William Bruer* informs me. The Fly called *Phryganium* (in Engliſh, the *Cados Fly*) ſerves for the like uſe, as alſo the Fly which uſually ſits upon mans ordure. But every moneth muſt have his ſeveral fly, for that which is for one moneth is not for another; the which the Fiſhers very well know, who in defect of the natural Fly do ſubſtitute artificial Flies made of wool, feathers, or divers kinde of ſilken colours, with which they couſen and deceive the Fiſh. Only you muſt take heed that aſſoon as ever they bite, you pull your line to you, leſt the Fiſh refuſing the unſavoury bait get away. In the River *Aſtraum* there ſwim fiſh of divers colours feeding upon the native Fly that flies on the top of the water, which when the fiſhermen perceived, they began to catch of thoſe kinde of Flies, and faſten them on their hooks. Now theſe Flies it ſeemeth as ſoon as ever they are touched loſe their native colour, and ſo become altogether unuſeful to fiſh withal. Wherefore they are fain to uſe aritificial ones made according to their ſhape and colour (as *Ælian* reports). They add alſo to the purple wool, and divers coloured, made into the ſhape of that Fly, two cocks feathers of wax colour, and ſo exactly reſemble the natural Fly. From whence we conclude this art of making Flies to be very ancient, and derived to us by long tract of time; however we have ſome bold bragging hookmen at this day that aſcribe it to their own invention. Nor may we wonder that fiſhes and fiſhermen do ſo lie in wait to catch Flies; when as *Domitian* the Emperor thought it a work not unbeſeeming *Caſar* himſelf; who as *Suetonius* ſaith of him, with an iron pointed inſtrument ſtab'd all the Flies in his Chamber to the wals, as they ſtuck upon them, and would not leave ſo much as one; inſomuch that when it was asked by any who was within with *Caſar*, the ſervants anſwered, *Ne muſca quidem*, no not ſo much as a Fly.

But how ſtrongly do thoſe infirm creatures demonſtrate the great power of God? For conſider but the leaſt Fly that is, and obſerve how in ſo little a body the moſt high God hath curiouſly fitted feet, wings, eyes, ſnout, and other parts, which yet are leſſe then the leaſt threed. How doth he out-fly a Fly of his own name ten times bigger then himſelf? doth he not excell all other Flies in running? doth he not pierce deeper with his ſnout, and draws out whole veſſels of wine? The *Elephant*, that great monſter of creatures, is often vexed and moleſted with Flies; and that they are able to tame the Lions, *Æſop* ſhewes in his elegant Fable. The Horſe, and Bear are not able to endure their biting, much leſſe then can the Sheep, and Aſſes, unleſſe humane prudence came in for their aid, and did prevail againſt them. Hence came the invention of that which ſome make of Leather, ruſhes, or briſtles which we call a *Fly-flap*: and that orbicular fan faſtened to a Longſtick made of the moſt choice Peacocks feathers, of which *Propertius* of old, makes mention in this Diſtich:

Lambere quæ turpes prohibet tua prandia Muſcas,
Alitis eximiæ cauda ſuperba fuit.

That is to ſay,
That which forbids the naſty Fly thy diſh to lick,
Is Peacocks feathers faſten'd to a ſtick.

The *Indians* and *Germans* make theſe, the one of Oxes, the other of Foxes tails. Some make them of ſmall willow twigs, others after another manner; the faſhion whereof, *Ælian, Vegetius, Ovid, Grapaldus* do exactly deſcribe. Moreover, whereas the rugged skin of the Elephant is in ſtead of tail, mane, hair, (to ſpeak in *Plinies* language) neither hath he any briſtles to cover him, or tail to guard him, therefore men cover him all over with linnen or ſilk, the better to free him from the irkſomneſſe of the Flies, and to keep him ſafe that they may not come at his skin.

That Oxen and cattel be not annoyed with Flies, anoint them with oyl fryed in a frying-pan, or with Lions greaſe, and Flies will not ſettle on them. The ſame will Origanum or wilde Marjoram effect, if rubbed till it be limber and ſpread upon them. If you anoint the hairs with the juice of the leaves of a gourd, you would not a little wonder how it will free them from Flies; this I have oftentimes made uſe of with profit. *Selardanus.* Bay-berries being made into a very ſmall powder and boyled with oyl, have the ſame virtue, if they be anointed with them; as alſo the drivel or foam of Oxen and Horſes. *Affricanus.*

Oftentimes Flies get into the wounds and ulcers of cattel, ſo that by reaſon of the worms which they breed, there is added much malignity. Firſt of all therefore, thoſe ulcers being made clean, *Columella* applies an ointment made of Pitch, old Oyl, and Bacon greaſe, both within and without; afterwards he applies Whey wingled with Aſhes. Almoſt all the Summer long the ears of dogs are ſo exulcerated with Flies, that they often loſe them quite. The which that it might be helped, they ſhould be anointed with oyl.

The Fly *Ophioborus* (from eating or devouring of Serpents) gets cloſe, ſaith *Aetius*, between the ſcales of the Serpent *Dryinam* eſpecially, inſomuch that at length it kils him outright; this Fly from the colour of its wings is called of *Heſychius* χαλκημύια, or the *Brazen fly*, becauſe it reſembles the colour of braſſe, it feeds on black Beetles; and by biting begets in the Serpent extremity of heat, after that unquenchable thirſt, and death followes: having fed upon the carkaſſes of theſe Serpents, if afterwards they happen to bite a man, the wound is incurable and deadly.

The Flies called *Merdivora* or *Dung-flies* are of divers ſorts: one is like the Fleſh-fly but bigger, his eyes of a darkiſh red, ſhoulders black, in which there is a circle ſomewhat long and whitiſh; the back black drawn over with croſſe lines or ſtreaks. The wings ſilver colour, longer then the body; moſt commonly they are ſeen about mens excrements, ſeldome otherwhere. There is alſo a Fly green all over, ſo reſplendent and glittering as if it were tranſparent, the head dunniſh, ſilver wings, frequently in the woods, and moſt commonly about dung; in bigneſſe equal to the common or ordinary ſort of Flies. Whether it be that which *Silvaticus* cals *Giacucul*, I know not. I have light upon another Fly called κοπροφάγον, *Dung-eater*, leſſe then the green Fly, the body dun, the head of a full red, with a line along the middle of it. I have another the body rough, yellowiſh, the eyes black ſtanding out; the ſhoulders and back black, curiouſly ſpotted, the tail aſh-colour. Another fly there is whoſe ſhoulders are of a pale red, ſomewhat towards a Saffron colour; it hath two horns longer then the reſt, ſilver wings covering all the body; the head black, fourſquare, and ſmall, very frequently ſeen about horſe-dung. To conclude about dunghils (from whence alſo it is probable they are generated) there are certain yellowiſh Flies, the body ſomewhat longer than the reſt, and bunching up; of whoſe generation we have before made mention. Alſo I ſaw another rare Fly, not every where to be met withal, that feeds on a mudwall made with mud and putrefied materials, it was black all over, only it had ſilver wings, and in the ſhoulders it hath four white ſpots, in the reſt of the body eight, *i. e.* on each ſide four; the eyes white, the frontlet marked as it were with a white aſterisk or little ſtar; out of which ſhoot out two black horns and long, it hath alſo upon the top of the thigh or ſhank a little white ſpot ſprinkled up and down. This Fly I keep, though dead, in a box for the rarity of it. *Bombilophagus*, is a Fly, montanous, big, very black, the body rough, the eyes ſomewhat long, great, the head of a bright red; for his prey he fals fiercely on the Humble-bee, and getting the better of him by flight, nimbly gets upon his back, and ſticking cloſe to him, doth ſo extremely bite, that he throwes him headlong to the ground, ſucks out what honey he findes, and goeth away conqueror. In the top of *Cartmel* hills *Pennius* affirms in his papers, that he ſaw it as long as the fight laſted; but the fortune of the battel falling to the Flies, the Humble-bees were put to the worſt and ſlain. And thus much of the *Zoophagi* or the Flies that live upon living Creatures.

The *Azoophagi* ſo called, are thoſe that make their living out of creatures without life, and thoſe are either on the land, or in the water: of the land Flies, ſome feed only on the earth and the dew of it; others of plants, herbs, and flowers growing thereon. The one I call (in a term of my own) Ground-ſuckers, *Humiſuga*; the other, Hearb-eaters, *Herbivoræ.* The *Humiſuga*, or Ground-ſucker, hath a dun coloured body, in the head toward the mouth, a whitiſh ſhining ſpot, the belly and feet black, at the comming forth of the wings on both ſides a white ſpot, the back grey, in the ſhoulders according to the length of them four ſullied white lines, the wings ſilver, and (if they be put into the water) ſhining like the glo-worm: it is found in foot-paths, and

Mole-heaps newly turned up; for it loves the ground that is made plain and ſmooth with treading on, and therefore called in Engliſh the *Graypath Fly*: it ſeldome comes upon flowers, eſpecially at what time the Mole caſts up freſh earth, of the juice whereof it is ſuſtained.

Of the *Herbivora* or thoſe that feed on herbs or flowers there are divers ſorts or ſpecies; whereof three are like the Bee termed of *Lucian* στρατιώτιδες, military or war flies. In regard they are bigger, luſtier, and ſtronger, very ſpecious to look on, very gallantly ſet out with two ſilver wings. The firſt and chief of theſe hath a blackiſh head, the middle of the back being cut croſſewiſe with two overthwart lines, the end of the tail black: the body otherwiſe mud colour. The ſecond not much unlike, the head blackiſh, the ſhoulders according to the length of them drawn with three yellow and black lines, the reſt of the body marked alike and with the ſame colours. The third and leaſt of theſe, the ſhoulders are rough and yellow, the head red, the reſt of the body is divided with four yellow and four black lines going acroſſe it. The bodies of all of them do glitter, and as if they had nothing in them are tranſparent. They are converſant in gardens, ſucking the juice of the flowers. *Lucian* deſcribes theſe military flies thus: There are a kinde of Fly which ſome call Military, others Dog-flies, that make a very harſh and ſhrill noiſe, and fly exceeding ſwiftly. Theſe are very long lived, and continue all the winter without meat, eſpecially when drawn together, and faſtened to ridges and tops of houſes.

In whom this is moſt worthy of admiration, that both of them do the naturall office both of male and female, like the Son of *Mercury* and *Venus*, who was of a mixt nature or *Hermophrodite*.

Much like to theſe is there another Fly called *Apiaria*, of a ſhining black, having two wings, gathering wax, and faſtening the juice that he hath gathered from the flowers to his hinder legs, as the Bee doth: He comes abroad in Autumn, and is ſeldome ſeen at any other time. Whether this be that which *Ariſt.* cals *Sirenis*; it differs certainly in the number of wings only, for that he makes to have four wings, whereas Nature hath afforded this but two.

There are other ſorts of Flies, that devour herbs and flowers, that are not like Bees, to wit, the *Struthiopteri*, *Eninopteri*, and *Chelidonii*, becauſe it is like to the Swallow. Of the *Struthiopteri*, I have ſeen three ſorts. The firſt whereof is tender and ſoft, ſix footed, with two wings, the belly longer then ordinary, ſending forth from the head a little above the eyes two feathers like Oſtriches feathers, as it were horns of a downy ſoftneſſe, as ſoft as any feathers whatſoever; crump ſhouldered, all the reſt of the body white, longer then the wings which are black. The ſecond is of the ſame colour, whitiſh, the head of a dusky colour; otherwiſe it differeth little or nothing at all from the former. The third is all alike, only the horns are not ſo ſoft and downy; the tail is white, the body long, with five white lines going athwart it, the feet long, marked with black and white colours: as it goeth it lifteth up the tail a little, and ſoftly claps his two tranſparent wings together. Theſe three ſpecies do appear in the Spring time with the firſt, in gardens, hedges and ſhady places very frequently before and after rain.

The *Erinopteros* is a fly all over white or rather ſilver colour, ſmall and every where downy; inaſmuch as when it ſits upon a flower, if you look not hard upon it, you would think it were a feather; the wings of it are divided, the feathers being ſevered one from the other almoſt like Birds wings. *Pennius* received one of theſe painted, from *Edmund Knivet*: afterwards he often ſaw them in hedges, and places ſet with privet.

The Fly called *Chelidonius*, is ſwifter of wing then all the reſt, ſides, tail, head, brown and hairy, the eyes black and hanging out, the bill or rather the noſe picked, out of the top of which ſtart out two horns; the top of the ſhoulders as alſo the back black, two ſilver wings, the forepart whereof do anſwer to the blackneſſe of the feet: ſometimes it ſits in one place for a great while together, as if it were unmovable, but as ſoon as you come near it, its out of your ſight before you can ſay, What's this? and will not yeeld a jot to the Swallow (from whom it hath its name) for ſwiftneſſe of flight. *Pennius* received another flower-Fly of the learned *Carolus Cluſius*, black, having two ſilver wings, two dainty white eyes in the back, having ſeven yellow ſpots, in the midſt whereof is to be diſcerned a ſpeck of black. There are Flies that are found in beans, of ſundry colours, but eſpecially of a pale purple, which I conceive do come of the ſmal worms called *Midæ*. For when they are gone (which is in the midſt of Summer) ſuddenly there comes forth a great number of thoſe Flies ſwarming amongſt the Beans. The Fly of *Napellus* I have not ſeen, but thoſe that come out of thoſe black grains that ſtick to the ſtalk of the wormwood, much leſs than Millet ſeed, more black than any Moor, only famous for their wonderful ſmalneſſe.

There is a certain Fly called ἐφήμερος, very rare and wonderful, whether you reſpect the form or the ſhortneſſe of its life. It hath many names: *Ælian* calleth it ἐφήμερος; *Heſychius*, μονήμερος; of others it is called ἡμερόβιος; in Latine, *Diaria*: it moves with four wings and as many feet; for that it hath not peculiar to it in regard of the ſhortneſſe of its life only (ſaith the Philoſopher) but alſo as it is a four footed creature, and a flying creature. It comes forth with the Sun, groweth, flouriſheth, languiſheth, and dieth the ſame day with the Sun ſetting. In the time of the Summer Solſtice, theſe diary creatures break forth out of certain husks of putrefied grapes, which husks (or ſuch as ſeem to be ſo) whether they are a kinde of *Aurelia* proceeding from ſome kinde of canker-worms living in the water, it is not eaſie to ſhew; for in that particular the Philoſopher is ſilent, from whom moſt of this ſtory is gathered. *Pliny* cals them thin membranes; *Ariſt.* ſmall bottles, and ſaith they are common to be ſeen in the River *Hippane*, by the *Cimmerian Boſphorus* of *Pontus*. They live a life both ſhort and ſweet, for they live not beyond the ſpace of a natural day, and in the evening they put an end as to their lives, ſo to their miſeries. In the mean while they are ſuſtained and kept alive with their own radical moiſture, neither are beholding either to air or earth; hence we may gather the length of their life, yea rather admire and wiſh for it. Theſe Inſects *Cicero* ſpeaks of in the firſt of his *Tuſcul. Queſtions*: theſe alſo *Matthias Michoides* in his 2. *Book de Sarmatia Europea* deſcribes in theſe words, You may take notice (ſaith he) that in the Rivers of *Ruſſia* and *Lituania*, eſpecially in *Boriſthenes* and *Botus*, in the Summer there are a great company of the Flies called *Ephemeri*, or Day Flies: they are Worms and Flies both, ſome have four, others ſix wings; in the morning they run upon their feet over the water, about noon they fly about the banks, the ſun ſetting, as many as were bred that day dye in the ſelf-ſame day. Which deſcription doth much differ from *Ariſtotles* Hiſtory of them, firſt becauſe in the morning it is a creeping worm, then about noon a fly altogether, beſides that he giveth to ſome ſix wings contrary to the minde of *Ariſt.* *Jul. Scaliger* in his learned *Exoterick Exercitations* againſt *Cardanus*, deſcribes this Fly after this manner; I have obſerved a kinde of Fly frequenting *Sarca*, and the Lake of *Bennacum*, called *Ephemerus*, in the evening, but never any in the morning; being taken it lived only a night: it hath four very long wings, how many feet I know not; but if it have ſix (for I do not remember how many it hath) it ſufficeth: it hath a head like a Fly, great eyes, the ſnout or beak rolled up together, the belly large, the tail exceeding long, and full of joynts, in the end forked, in ſome three forked, of colour a darkiſh yellow in the bigger ſort, in the leſſer of a brown or dunniſh, very ſpecious. The *Taurini* call this inſect *Monietta*, as they would ſay *Monachella*. The *Adriatick* about *Meranum* and *Tergeſte*, call it *Cuzotulum*; of my Countreymen it is called *Sitivola*, *i. e. Sagitella.* *Ælian lib.* 2. *de Animal. c.* 4. ſets forth another kinde of theſe Inſects, ſuch as are bred of ſowre wine Lees, which when the veſſell is opened come forth, and the ſame day, for nature hath given them a beginning of life, but in regard of the many miſeries to which it is incident, quickly freeth them of it, before they can be ſenſible of their own, or any others unhappineſs. But yet what theſe Flies of which *Ælian* ſpeaketh be, unleſſe they be thoſe that we call *Bibiones*, I know not: for that our Vintners know of no other bred in their cask.

But *Scaligers Ephemerus*, I ſhould rather have reckoned amongſt the Flies called *μακροημέριοι*, had not he himſelf referred it to this Claſſis. I ſhall not think it much alſo to ſpeak of *Pennius* his *Triemerus*, or a Fly living three daies, for the likeneſſe of the one with the other, that ſo the mindes of the ſtudious may be filled with variety and rarity. It is of body very long, and ſomewhat like a Butterfly, the head little and yellowiſh, the eyes great, black, ſtanding out of the head, the *promuſcis* or beak winding in; of the colour of yellow mulleins, with which it ſucketh dew from the flowers; two black cornicles faſtened a little above the eyes, the back and belly blewiſh, the end of the tail dunniſh; it hath only four legs, the hindermoſt whereof are yellowiſh, the edges of the foremoſt black, it hath as many wings as feet, the outermoſt whereof are pale, wan, the utmoſt borders of them being of a dark yellow, the innermoſt of a brightiſh yellow. The outer wings when they are cloſed together for to cover the body, they are ſo contiguous, that you can hardly, yea very hardly perceive where they touch; it flies heavily, and continues but a while in flight, within three daies it expires, it lives amongſt Mallowes and Nettles, this was found at *Peterborough* in *England* in the year 82. witneſſed by very honeſt men and without exception. Thus *Pennius*.

In flowers, or rather the buds of the flower called white Bets, there is a kinde of Fly that eats the flowers, very ſmall, I know not whether bred there, or coming thither from ſome other place. It ſeems they abide there for warmth ſake and feeding. *Pennius* ſaith he was informed of this by his moſt learned friend Dr. *Brown.* I thought good to place the Fly *Bibio* in this number, becauſe it is nouriſhed by Wine, *i. e.* the clear juice of the grape (of which alſo it is bred). In the Illyrian Tongue called *Vinis robale*; by the Germans, *Wein Worme*; in the Engliſh, *Wine Fly*. *Cardanus* cals it *Muſcilio*; *Scaliger* not amiſſe, *Voluceſſam*, and *Vinulam*; for it flies into cellars often, cares for nothing but wine. If you take it and look upon it, you would think it had no ſnout or beak at all, and yet it is reported that they will ſtrike through a Cask made of inch board, inſomuch that the wine ſometime runneth all out. It may be *Grapaldus* meaneth theſe, when he writeth thus: The *Muſcillæ*, *Muſcula*, *Muſciones*, Flies bred in Autumn in the mother of Wine, and ſoiling the Wine-cups, do not live ſo long (and that deſervedly) as to come upon the table in the winter. In the Weſt Countrey in a Town called *Tanton*, in the fruit of an Apple tree called *Velin*, in the Summer being rotten to the Core, there is found a gliſtering fly of a green colour; which when the Apple is cut in twain, flies out, and ſeemeth to be bred there of ſome kinde of worm that is in it.

Remedies againſt Fly-bitings.

The wounds made by any of theſe Flies, muſt be anointed with bitter Almonds bruiſed, or Walnuts; when ulcers are made, it is fit to pour on liquid Pitch boyled with Hogs-greaſe. Thoſe things that kill and drive away the Tyke-flies called *Ricini*, for the moſt part kill and drive away the Dog-flies. *Columella.*

The Fly alſo by his boldneſſe and ſaucineſſe, hath taught men how to provide remedies againſt them; for whereas both at home and abroad, every where they were ſo troubleſome, that nothing could be ſo ſafely kept by the Cook, but preſently they would be at it and ſpoil it, yea all kinde of meats whatſoever, they now uſe to ſtrew or ſtick up in their houſes, or boyl and mingle with ſuch kinde of things as Flies love, Nigella ſeed, Elder, Lawrel, Coriander, Hellebore, Bugloſſe, Borage, Sage, Beets, Looſe-ſtrife, Origanum, Baſil royal, Henbane, Licebane, Balm, a ſhrub having a flower like a Roſe, Pepper, Ferula, Cockle, Libbards-bane; ſome give them Orpiment powdered with Milk or ſweet Wine, and ſprinkle it about. *Rhaſis* writeth that Crocodile Broth chaſeth away Flies; who alſo commends the perfume of yellow Arſenick, with Olibanum, perfume of Vitriol; writing Ink tempered with water wherein Wormwood hath been waſhed keeps the flies from the letters. *Plin.* The ſeed of Henbane, black Ellebore, and the Froth o Quickſilver with Barly flower beaten and kneaded, and made into little morſels with Butter or Greaſe, and ſmeared with a little honey, and ſo caſt to the flies kils them. *Aetius.* The gall of a Hare mingled with milk, or boyled in water, and ſprinkled about the houſe will chaſe away all the flies. *Anonymus.* Flies are deſtroyed with the ſmell of Wine diſtilled with the herb Balm. *Lullus.* If you would gather flies together into one place, caſt Rhododaphne well bruiſed into a ditch; the juice of the herb Ferula ſprinkled worketh the ſame effect. *Aetius.* Bury the tail of a Wolf in the houſe, and the flies will not come into it. *Rhaſis, Avicen, Albertus.* Boars greaſe and Roſin melted, entangles them, Oyl choaks them, Verdigreaſe kils them outright. If you anoint any thing with Caſia beaten in oyl, it will be ſafe from flies. There is found in my Countrey (ſaith *Petrus Creſſentius*) a kinde of Toadſtool or Muſhrome, broad and thick, reddiſh about the top, which ſendeth forth certain knobs or little bunches, ſome broken, ſome whole; it is called the *Flies Muſhrome*, becauſe when it is made into a pulteſs with milk, it deſtroyeth the flies. If a man hold in his hand the ſtone *Heraclites*, or the touchſtone, although he were dawbed all over with honey, yet will not the flies come at him, & by this means you may know whether the touchſtone be true or no. *Aetius.* They write that the K. of *Cambayes* ſon was brought up by poyſon, who when he came to years, was all over ſo venomous, that flies at once ſucking were ſwoln to death. *Scaliger.* If the fly get into one eye you may ſhut the other hard and it helpeth. *Aphrodiſaus in Problem.* If Camels chance to be ſtung by the *Tabanus* or *Aſilus* (a kinde of Fly ſo called) as it often cometh to paſſe in *Arabia*, anoint them with Whales greaſe and all ſorts of fiſh, and they will preſently be gone. *Plin.* *Solion in Geoponicis*, biddeth to ſprinkle cattel with the decoction of Bay-berries; and both theſe flies through a kinde of natural antipathy depart forthwith. If cattel be already ſtung with the *Aſilus Fly*, anoint them with Ceruſe and water. The *Tabani* will die (ſaith *Ponzettus*) when you ſet before them Oyl of the decoction of land Crocodiles called *Scinci*, bruiſed, with Hogs ſeam & the flour of ſoot. Moreover let cattel be led to paſture in the evening, the ſtars guiding them, in the day time let them be kept in folds with boughs laid under them, that they may lye the more eaſily and quietly. *Virgil.* Or elſe let them be brought to the ſides of thick woods where theſe flies by reaſon of the dulneſſe of their ſight cannot fly ſo freely. Sundry kindes of remedies againſt flies *Ruellius* upon *Hippocrates*, as alſo *Apollonius* and *Brixtus* have preſcribed more remedies againſt flies.

Now after what manner Flies do execute the Juſtice of God, let us briefly ſet down. No Age but will ſpeak of that famous Army of Flies, with which that great Lord of Hoſts of heaven and earth did of old correct the fury of *Pharaoh*, and of the *Ægyptians*, being joyned with hardneſſe of hart; and yet the wicked Hypocrite did not come to himſelf, but wallowing ſtill in the mire of ſin without any ſenſe, did afterwards invite greater and more grievous judgements to fall upon him. And that proud young gallant, who would needs ride to heaven upon his winged ſtead, was diſmounted and caſt down by the Fly called *Oeſtrum*. *Hercules* alſo, although exceeding in ſtrength, the Poets inform, that he was almoſt vanquiſhed by flies. In the time of K. *Rivallus*, when as corruption of manners, and guilt had infected *Britany*, there came down from heaven ſhowres of bloud, and thoſe being dried away, did produce ſwarms of poyſoned Flies, who if they did but once bite any man he preſently died, as our Annals report. *Nicolaus Albanepolitanus* an Engliſh man, being elected Pope in the year 1154. called by the name of *Hadrian* the fourth, was choaked with a Fly flying into his mouth. *Urſpergenſis.* Others ſay that he was killed with drinking a draught of water in which a fly was drowned: and that by the juſt judgement of God, who excommunicated *Frederick Ceſar*, (whoſe ſurname was *Barbaroſſa*, or *Ænobarba*) and did incenſe all the Princes of *Italy* againſt him. *Nauclerus* out of *Johannes Cremonenſis.* An ancient writer reports alſo, that the Army of *Julian* the *Apoſtate* was grievouſly infeſted with mighty ſwarms of flies; and *Grillus* ſaith that the *Megarenſes* were by them driven from their habitation. In the year 1348. great numbers of flies dropping out of the air, did cauſe in the Eaſtern Countreys incredible noiſomneſſe and putrefaction; upon which followed ſuch a Plague among the people, that ſcarce the tenth man among them was left alive. In the year 1091. wonderful ſtore of ſtrange flies did fly up and down many Countreys, who did ſundry waies hurt the graſſe, trees, cattel, and men alſo. *Cranzius.* In the year 1143. a ſort of fly about the bigneſſe of the common ſort of flies, only of ſomewhat a longer body, did ſo fill the air, that for many miles together the Sun could not be ſeen, which were alſo very troubleſome. *Urſpergenſis.* In the year 1285. *Charles* King of *France* leading an Army into *Spain*, and making war with *Peter* King of *Aragon*, an Army of huge flies of divers colours ſet upon the *French*, and ſlew them with their beaks, as it had been with ſwords. *Marineus Siculus l. 11. de Hiſp. Reg.* In the year 1578. about the middle of *Auguſt*, upon the top of the Temple of *Brumbium*, there ſate every year a ſwarm of flies which made ſuch a noiſe with their wings as if they would throw down the roof: *Timothy Bright* told this to *Pennius*, a Phyſician, a man both learned and vertuous, and of no ſmall note with us. Hither may be referred that which *Strabo* reports, *lib. Georg.* 3. That amongſt the *Romans* a Plague did often happen by reaſon of them, inſomuch that they were fain to hire men of purpoſe to catch them, who were payed according to the quantity more or leſſe that they caught. But how greatly they annoy the inhabitants of *Africk*, *Apulia*, *Spain*, *Italy*, and the *Weſt-Indies*, how grievouſly they ſting and wound the *Carthaginians*, and the inhabitants of *Hiſpaniola*, beſides *Oviedus*, let thoſe Engliſhmen ſpeak who accompanied that flower of Knighthood, and Maul of the *Spaniſh* pride, *Francis Drake*. As for thoſe things which *Apollonius*, *Fulgeſus* and *Pliny*, fabulouſly and ſuperſtitiouſly relate concerning Flies, I thought them unworthy of this place; and therefore thoſe flies called *Piſatides*, *Cypriæ*, *Eliades*, *Actea*, and the reſt of meer invention I paſs by. It ſhall not be from the matter to tax in brief the madneſſe of the ancient Gentiles, that we may thereby be taught to lift up our eyes to the true ἀπόμυιον, the God that doth indeed keep flies away from us. It is ſaid of *Hercules* in performing divine Worſhip, whereas he was almoſt killed by the Flies, that he offered ſacrifice to *Jupiter*, called ἀπομύιος, or the Fly-way-driver, by which means they were preſently diſpatcht into the River *Alpheus*, from whence he was afterwards called by the name of *Muſcarius* or Fly-killer.

The *Eleans* did invocate *Myagrus* and *Myades*, that multitude of Flies might not cauſe a plague amongſt them. *Pliny*. He relates alſo how the *Cyrenaicks* were wont to worſhip *Achor* the god of Flies, that by his means they might be ſecured from being troubled with them. *Pliny* more truly might have read this name *Acaron*, or *Ithekron*, in ſtead of *Achor*, if he had heard of the Town *Acaron* where *Bahal-zebub*, *i. e.* the god of Flies, that famous Idol uſed to be worſhipped. *Urſpergenſis* ſaith that the Devil did very frequently appear in form of a Fly; whence it was that ſome of the Heathens called their familiar ſpirit *Muſca* or Fly: perchance alluding to that of *Plautus*:

Hic pol muſca eſt, mi pater,
Sive profanum, ſive publicum, nil clam illum haberi poteſt:
Quin adſit ibi illico & rem omnem tenet.

This man O my Father is a Fly, nothing can be concealed from him, be it ſecret or publick, he is preſently there, and knowes all the matter.

But away with thoſe falſe and filthy gods which, the Greeks therefore called τρυγοδαίμονας, becauſe they did ſerve for bugbears perhaps for children, and ignorant and heatheniſh people, which we that are Chriſtians, and profeſſe the true Creator of all things, ought not at all to regard.

There is alſo ſaid to be another uſe of flies. For *Plutarch* in his *Artaxerxes* relates that it was a law amongſt a certain people, that whoſoever ſhould be ſo bold as to laugh at and deride their Lawes and conſtitutions of ſtate, was bound for twenty daies together in an open cheſt naked, all beſmeered with honey and milk, and ſo became a prey to the Flies and Bees, afterward when the daies were expired he was put into a womans habit, and thrown headlong down a mountain: which place of *Plutarch* (by the Tranſlators leave) I think ſhould be interpreted not *Ciphone vinctus*, but *unctus Ciphi*, anointed with ſweet ſmelling oyntment. Of which kinde of puniſhment alſo *Suidas* makes mention in his *Epicurus*. There was likewiſe for greater offenders, a puniſhment of *Boats*, ſo called. For that he that was convict of high Treaſon, was clapt between two Boats with his head, hands and feet hanging out: for his drink he had milk and honey powred down his throat, with which alſo his head and hands were ſprinkled, then being ſet againſt the Sun, he drew to him abundance of ſtinging flies, and within being full of their worms, he putrefied by little and little, and ſo died. Which kinde of examples of ſeverity as the Ancients ſhewed to the guilty and criminous offenders; ſo on the other ſide the *Spaniards* in the *Indies*, uſe to drive numbers of the Innocents out of their houſes, as the cuſtome is among them, naked, all bedawbed with honey, and expoſe them in open air to the biting of moſt cruel flies. But for theſe things let *Nemeſis* anſwer, who is at the back of cruel miſcreants, yea may be ſaid every moment to be preſent with them.

To conclude; the laſt uſe of Flies (and that not to be contemned neither) appears to be this, that whereas none of them paſſe a Summer, yet ſome of them do not live out a ſhort day, we ſhould by them be put in minde of our own frailty, and of the uncertainty of this vaniſhing life; the which although preſerved with all the dainty food that can be got, with the ſofteſt raiment, and all the beſt waies and means that may be for a ſhort ſpace, yet when it ſeems moſt to flouriſh, it on a ſudden declines and ſcarce with the fly holds out an Autumn, much leſſe a Winter; we are in *Pindars* account but ἐπάμεροι, *Daiesmen*, *i. e.* of a daies continuance, and as the dream of a ſhadow. And with the flies, ſhort liv'd, yea ſhorter liv'd then they, for the moſt ſhort lived of them liveth a day, whereas we have young children that ſurvive not ſometimes the fourth part of an hour. Away then thou Tyrant whoever thou art, make lawes as thou pleaſeſt, perſecute the godly, add impudence to thy ſtrength, trouble and confound all things, give thy ſelf up to all abominable and filthy luſts; yet at length *Jupiter* ſhall ſcare away theſe flies, and after thou art dead, exerciſe thee with variety of torments.

Chap. XIII.

Of Gnats.

THE Gnat is called in Hebrew Arabick, *Heagi*; in Italian, *Zenzala, zinzala, ſanzara, ſanzala*; in Germane, *mock, m' u' ucke ſchnack, ſlinger, braem*; in Flanders, *Meſien*; in Polony, *Komer, Welchicomor*; in Muſcovy, *Coomor*; in Spaniſh, *Moxquite & moſquito*, whence our ſeamen call it a *Muſchite*; in French, if it be leſſer, *Moncheron*, if greater, *Bordella*; in Engliſh, if bigger, a *Gnat*, if leſſer, *Midges*; in Latine, *Culex*, perchance from its ſting as *Iſidor* ſaith, or from the word *culeum*, which ſignifies the ſame with *corium* a skin. But if I might be bold to give the Etymologie, I ſhould rather read the word *cuticem*, not *culicem*, a skin fly, becauſe it moſt affects that: whence by way of Hieroglyphick it ſignifies a *Letcher*; becauſe as the Gnat covets the faireſt skin, and ſtrikes till bloud come forth, ſo doth the Letcher: which *Plautus* ſeems to intimate, when as the Paraſite, if I am not deceived, takes up an old fornicator for kiſſing his miſtreſs too hard after this manner: *Eho tu nihili, cane culex, &c.* What, art thou not aſhamed thou gray-headed Gnat? I can ſcarce forbear to tell thee thine own.

The Greeks have no general word that comprehends all kindes of Gnats; as on the other ſide the Latines want words for particular Gnats, with which the Greeks abound. Of the Greek words, κώνωψ ſeems to be moſt comprehenſive, whence the *Oeteans* worſhipt *Hercules* by the name of *Conopius*, becauſe he was thought to have driven all the Gnats out of their Countrey. The ſame *Alexandrinus* witneſſeth that *Apollo* was called in *Attica Culicaris*. The *Bœotians* worſhipt their god by the name of *Apollo Parnopius*, becauſe he drave away their Gnats called in their language, πάρνοπας, ſo *Pauſanias*. But ſince the Greeks have one herb they call κωνύζαν, *i. e. Culicularia* or Gnatbane, a remedy againſt all ſorts of gnats, κώνωψ doth indeed ſeem to be the moſt general word. That is evident by the network coverlid ſpread on beds, taken from the Greeks which they call κωνωπεῖον, and we alſo at this day name not much unlike, a canopy, a thing to catch all manner of Gnats.

The Gnat ſeems to be a kinde of Fly, yet as flies love ſweet things, Gnats love things ſowre and tart. The Flies do couple, the Gnats do not. They are moſt troubleſome in the day time, theſe in the night, they make a kinde of a dull humming noiſe, theſe ſing ſhrill, loud and pleaſantly.

The Gnat hath two wings, for the bigneſs of his body great, coming forth of his cromp ſhoulders, he hath ſix long crooked ſcambling legs going in and out, growing from his prominent ſquare breaſt, with which as *Ariſt.* ſaith, they with the more eaſe lift up their bodies and go the better; he hath a very long body, as alſo a ſnout or *proboſcis* three times as long as the Flies have, with the ſharp point whereof he breaks through the skin, and with the hollowneſs of his trunk he ſucks bloud, which he makes uſe of in ſtead of a mouth and a tongue. *Pliny.* He makes a terrible ſound and great, for the bulk of his body, ſo that *Homer* in his *Batrochomyomachia*, makes them to give the ſignal for the fight. *Ariſtophanes* in his *Nubibus*, in deriſion of *Socrates*, brings in *Cherepho*, demanding whether the Gnats make that ſound with their mouth or with their tail. Yet in his *Avibus* he terms them ὀξύσομας, which the Scholiaſt expounds ὀξυᾳδούς, *ſhrill ſinging*. Their *Proboſcis* (ſaith *Pennius*) ſeems to be given them by nature to ſuck bloud and to feed themſelves withall; but we may not aſſent to him in this particular, even reaſon is againſt it, for that the Gnat when he turns towards one ſings more ſhrill, but in turning away more flat; which could not poſſibly be, if they made their ſound with their tail.

Καὶ τότε κώνωπες μεγάλας σάλπιγγας ἔχοντες. Δεινὸν ἐσάλπιγξαν πολέμου κτύπον, &c. And then the Gnats with their great Trumpets ſound alarm to the battle.

The ſtructure or make of the Gnat there is no man but with *Pliny* may juſtly admire. For in theſe ſo ſmall Inſects and as good as none almoſt, what reaſon is there? what force? what inextricable perfection? where hath nature placed ſo many ſenſes in the Gnat? where his ſight, where his taſte, where his ſmelling? where is begotten that terrible and great ſound which that little body makes? with what curioſity are the wings faſtened, and the ſhanks and legs to the body? an empty hollow place for a belly which cauſeth ſuch a thirſt after bloud, of mens eſpecially? but their dart wherewith they pierce the skin, how ſharp is it? as in the biggeſt it cannot be perceived, ſo it is doubled with reciprocal art, that it might be ſharp to break through the skin, and fiſtulous to ſuck the bloud.

Their manners and conditions are very ill diſpoſed, both in regard that by their good will they will wound none but the faireſt; and alſo thoſe that are aſleep, harmleſſe and thinking no hurt. Whence groweth the proverb of a very ill conditioned man, that he is κώνωπος ἀδικώτερος, *more miſchievous than the Gnat.* The Gnat certainly is a very miſchievous little creature (to uſe *Ælians* language) annoying men both day and night, both with his noiſe and his ſting; eſpecially thoſe that live near the fens or rivers. Of whom *Tertullian* againſt *Marcion*, and his fifth book ſpeaketh thus: *Endure, if thou be able, the trunk and launce of the Gnat; who doth not only offend the ear with the ſhrilneſſe of his ſound, but with his launce ſtrikes through the skin, yea and veins alſo.*

The diſtinction of Gnats is very perplex and obſcure, it hath puzled all the Philoſophers; which with the doubtful ſenſe of words in Authors have almoſt confounded the things themſelves. But to me they ſeem to differ eſpecially in magnitude and malignity. For there are theſe ſeveral ſorts of them, the bigger, leſſer, middlemoſt and leaſt.

The bigger may be called ἑλειοι, becauſe they have their abode in fenny and mariſh places, there they are begotten, and there nouriſhed, they have a very long ſlender body with two wings, which they never lift up above their body as the fly doth, but ſtraight up from their ſhoulders, and thoſe are very neat, polite and compleat as may be.

They abound in woods that grow near the ſea and the fens, not only in *Norway*, *Ruſſia*, and other extreme cold regions (as *Olaus Magnus* hath obſerved) but in the *Weſt-Indies*, in *Hiſpaniola*, *Peru*; and in *Italy*, near *Eridanus*, *Padus*, *Adria*, *Argenta*, where great ſtore and very great ones are to be ſeen, terrible for biting, and venomous, piercing through a three double ſtocking and boots likewiſe, ſometimes leaving behinde them impoyſoned, hard blue tumors, ſometimes painful bladders, ſometime itching pimples, ſuch as *Hippocrates* hath obſerved in his *Epidemicks* in the body of one *Cyrus* a Fuller being frantick. Nay ſometimes the vein being ſtruck, they do ſo ſuck the bloud, that when they are gone with their bellies full, it would flow out in drops of its own accord, even as we ſee in horſes when they are bitten of the fly called *Tabanus*. The *Italians* uſe to clothe themſelves with leather for that purpoſe, but yet ſcarſely and not altogether by any means they can uſe, can they eſcape their ſtings. Whether or no theſe are the *Styges* inevitable of which *Theophraſtus* ſpeaks of in his Book *de cauſ. pl. ſ. cap.* 4. I have not to ſpeak for the preſent (ſaith the learned *Scaliger*) and it appears that they are the ſame, for that they are not bred in a place of free, thin and open air, but are bred and fed about fens and ſtanding waters, as about *Argenta*, and the mouth of *Padus*. But if the be *Styges*, they have found out a very fit name for them from their hatred and malice, which the word ςύγος doth import. But thoſe which are in the hotter Regions, and live by the ſides of rivers and fens, are of a more fierce diſpoſition, and ſting more cruelly, as *Maſſarus* hath informed *Geſner*, and our countreymen the *Engliſh* under Captain *Drake* in their expedition into *Hiſpaniola* felt by experience. There are others ſomewhat leſſe then theſe, nothing differing in colour, form, and frame of body, but yet in diſpoſition more milde, and ſting leſſe. In the Summer time they are in the ſhady places, in the Winter in ſnowy places neer hedges and buſhes, ſporting themſelves in their ſwiftneſs of flight, and as it were trying the maſtery in fleeing from this place to that. They ſeldome bite, and when they do bite they draw no bloud, but only a little ſalt ſweaty matter which they feed upon; which cauſeth only a little hard and itching pimple to ariſe. Theſe two ſpecies are eſpecially termed of the Greeks κώνωπας, others there are notwithſtanding which have other names.

There are in *England*, eſpecially in the north part thereof, two other ſorts of them, of a third and fourth bigneſſe, much leſſe than the former, but amongſt themſelves not much differing in their dimenſions. Theſe like expert and well trained ſouldiers, alwaies march in an exact pyramidal Figure, and although in themſelves infinite, yet not any one of them breaks his rank. Thus they move upwards and downwards, when as in the twinkling of an eye, and while you can ſay, what's this? they bring their Army into a ſquare body, and preſently again into wings; the which if you rout with a fly-flap, or with water ſprinkled amongſt them, or with a ſtrong blaſt of breath, they will inſtantly rally again, and before you can give a fillip bring their whole body into a pyramidal figure. They being in great numbers, do much infeſt the faces and eyes of travellers, and bite them: ſo many and ſo frequent are they, that out of what kinde of worm they ſhould have their original it cannot be imagined. Countrey people ſuppoſe them, and that not improbably, to be procreated of ſome corrupt moiſture of the earth. Theſe ſmall Summer Gnats are moſt frequent in the moneth of *May*, and ſeem to be nouriſhed with a watery vapour, for their inteſtine or ventricle is very ſmall, white and welnigh inviſible, full of a white frothy thin moiſture, and of little or no tenacity; ſometimes they fly farther off from the water, and gather themſelves in great companies about houſes, as men paſſe over bridges they ſwarm about their heads, they love places that are without wind, they ſhun what they can a turbulent air, for by the troubleſomeneſſe of the air they are diſperſed hither and thither. Thoſe kind of Gnats are properly called in Engliſh *Midges*.

Now we are to deſcend to other ſort of Gnats, according as their names are given them in the Greek. The chief of theſe are theſe three, *viz.* Ἐμπὶς, ψὴν, κνὶψ: of which in order. *Empis is a kinde of Gnat living about rivers, eſpecially about rocks, girt about the middle with a ſtreak of white.* It maketh a ſhril-like noiſe as the other kindes of Gnats do, whence *Charephon* in *Ariſtophanus* his *Nubibus* demands of *Socrates*, *whether he thought that the Empides did make that ſound with their mouth or their tail?* *Heſichius* alſo calleth this *Empri*, βύπνον, or *Oxe-eater*, becauſe being deceived by the authority of *Ariſtotle*, he thought the *Oeſtrus* Fly came from them: the which we have declared before at large that they were procreated of Swallowes. καὶ δὲ Ἐμπίδες γίνονται ἐκ τῶν ἀσκαρίδων *&c. Ariſt. Hiſt.* 5. *c.* 19. Which *Theodorus* Latines thus: *Culices Muliones ex Aſcaridibus gignuntur, hoc eſt Tipulis. The Gnats called Muliones are begotten of the Aſarides, i.e.* the *Tipulæ*. Theſe *Tipulæ* for the moſt part come out of wells or ſtanding waters, the earthly matter ſetling to the bottome; for the mud firſt of all putrefying, becomes whitiſh, by and by after blackiſh, laſt of all bloud-red, when it is ſuch, preſently there come forth certain little red creatures called *Algulæ*, which remaining for a time, they move to their original, and afterwards come to perfection; ſo that the *Tipulæ* ſo called, are carried by the water, then a few daies after they heave themſelves above the water, hard and without motion; not long after the ſhell being broken, cometh forth the *Empis*, and ſits there, till either moved by the wind or the Sun he be able to fly. Thus far *Gara.* Nevertheleſſe (not to wrong a famous man) I ſhould think it a very eaſie

Ἐμπὶς εἶδος κώνωπος παραποτάμιον, μεῖζον δὲ πλειοχῆ, κατὰ δὲ τὸ μεῖζον λευκῷ περιεζωσμένον.

matter to ſhew where in many things he is out. Why doth he tranſlate the *Empides Muliones*, who are ſaid not to live above a day, and feed only upon honey? which muſt needs be hard for them to get ſo readily in Fens and Mariſhes. For I may well call (without wrong to the judgement either of *Pliny* or *Penny*) the *Muliones* as they call them, *Melliones*, for they neither care for *Mules* nor feed on them, but only upon Honey, the which they can ſmell at a great diſtance; they have a bill like a *Wood-pecker*, long and ſharp, with which they devour in honey ſo greedily, that at length they burſt their bellies, and ſo preſently expire. In this alſo did *Gaza* trip, to ſay the leaſt that may be, that he tranſlates the word *Aſcarides* by the word *Tipulæ*. For the *Aſcarides* (whether they come forth of the earth, or the water, or otherwiſe) every man knowes do ſignifie little worms. Beſides, the *Tipulæ* alwaies keep the top of the water, ſeldome or never go down to the bottom. Laſt of all, when as the *Tipulæ* themſelves come of the *Aſcarides*, who can rightly ſay that *Aſcarides* are the *Tipulæ*?

Ψὴν, is called **Culex ficarius, i. e. Fig Gnat**, not becauſe it comes indeed from the fig-tree, but becauſe it is fed and ſuſtained by its fruit. For it is ſprung of a certain worm that breeds in the Figs, which when nature cannot make her perfect work upon, nor bring to the ſweetneſs and perfection of other Figs, leſt ſhe ſhould make ſomething in vain, by a certain quickning vertue, out of the grains of them being rotten and putrefied, ſhe produceth theſe Gnats. Yet not ſo, as that the *Gnat* is the πάρεργον, or beſides the intention of Nature (as *Scaliger* hath learnedly obſerved) or if it be, the truth is, the work by the bye is of more dignity than the main. Nature did propoſe to its ſelf the perfection of a wilde Fig, a thing not ſo much to be eſteemed of: this ſhe being not able to bring to paſſe, turns her ſelf from ſo common a work, to an enterpriſe of greater weight, and produceth a *Gnat* which ſhe eſteemeth. Concerning thoſe Gnats *Pliny* hath theſe words: the wilde Fig-tree brings forth Gnats, theſe being defrauded of the nouriſhment they ſhould have received from their mother, being turned to rottenneſs, they go to the neighbouring Fig-tree, and with the often biting of the ſame fig-tree, and greedily feeding upon it, they let in the ſun withall, and ſet open a door for plenty of air to enter in at. Anon after they deſtroy the milky moiſture, and infancy of the fruit; which is done very eaſily and as it were of its own accord: and for that cauſe the wilde fig-tree is alwaies ſet before the fig-trees, that the wind, when the Gnats fly out of them, may carry them amongſt the fig-trees, who aſſoon as they come into them, the figs ſwell and ripening of a ſudden grow very big and full. Whence it is that the Greeks to expreſſe a woman great with childe and near her time (yea or newly conceived with childe) call her ἐψηνιασμένην, *Gnat-bitten*. Thoſe kemb'd and curle lockt *Pathicks* and proſtitutes of unnatural luſt, were called from hence *Capifricati*, as witneſſeth the Greek *Iambick*, οὐδεὶς κομήτης ὅστις οὐ ψηνίζεται, *Nemo comptus niſi Caprificatus*. There is no man that curls and trims his locks that is not *Caprificatus*. To this Caprification *Turnebus* thinks that *Adrian* the Emperor did allude, when he upbraids that effeminate Poet *Florus* with his *Pathick* obſcenity under the term of *round Gnats* in a moſt bitter Sarcaſm:

Τὸ πάρεργον ἐργολαβίας ἀξιόλογον τοῦ ἔργου.

Florus had ſaid, *Ego nolo* Cæſar *eſſe*, *Ambulare per* Britannos, Scythicas *pati pruinas*.	To whom *Cæſar* anſwereth, *Ego nolo* Florus *eſſe* *Ambulare per Tabernas*; *Latitare per popinas*, *Culices pati rotundos*.

In Engliſh thus:

I would not *Cæſar* be To travel *Britany*, To ſuffer *Scythian* cold.	I would not *Florus* bee To walk the Taverns free In Sculking Brothels hide, Or the round Gnats abide.

But what time theſe Gnats paſſe from the wilde fig to the fig-tree, they do it in ſuch haſte, that many of them leave either a foot or a wing behinde them. Now that they generated of the grains of the unripe fig, may be evident in that the wilde fig is left void of grains.

Cnips (ſome call it σκνὶψ) ſo called of the Greeks, ἀπὸ τοῦ κνίζειν, from biting or ſtinging, (for that the twinge the fleſh, and with their biting cauſe an itching in the ſame) is a very ſmall Gnat, not unlike the *Conops*, who although by his ſitting upon the Fig it may ſeem the ſame Gnat ſpoken of before, called ψὴν; γίνονται μάλιστα ἐν τῇ δρυῒ (as *Theophraſtus* ſaith) καὶ δοκεῖ ἐκ τῆς γλυκείας ὑγρότητος τῆς ὑπὸ τὸν φλοιὸν συνισταμένης. Which place *Pliny* interprets thus: *There is a kinde of Gnat very offenſive to certain trees, as to the Oak, of whoſe moiſture that is under the bark they are thought to be bred. Theophraſtus* cals all thoſe κνῖπας, what ever they be that are bred in the Elm, *Naveu*, *Rapes*, *Poley*, the *Maſtick*, *Turpentine*, and *other trees*, either with putrefaction or otherwiſe. Theſe or the like, but a little bigger, *Curſius* in his 13. Book, ſaith are very hurtful to the orchard Walnuts, which are called of thoſe of *Lions*, *Bordella*, *Bordells*. *Galens* opinion is, they are great devourers of Grapes. The moiſture of the Elm included in its firſt growth in the leaves, or rather bladders, if it dry up, is changed into theſe *Cnipa*. In the Autumn it brings forth other kinde of Gnats, many, ſmall, and black, called *Canchryes*. *Symphorianus*. They do eſpecially haunt and ſpoil watered gardens, the crop and ſcrape moſt kindes of herbs. *Velarandus Inſulanus*, an Apothecary at

Lious hath obſerved them very frequently to come forth of the middle or heart of the Oak Apple, having a hole made into it: as alſo out of divers other herbs, not ſo much by reaſon of putrefaction, but rather out of the alteration of certain principles being digeſted into a better nature by ſucceſſive labour.

Origen upon *Exodus*, ſaith that with theſe little creatures God did the third time take down the proud heart of *Pharaoh*: the which are hung in the air by the wings, but yet as it were inviſible, and do ſo ſubtilly and quickly pierce the skin, that the fly which you cannot perceive flying, you may feel ſtinging. So all the ancient interpreters following *Origen*, expound the word [illegible]. Only *Tremelius* (a very faithful interpreter of the Hebrew Text, and of ſacred Writ) is of another minde, who thinks this plague to be a ſwarm of ſuch kinde of creatures, as if the Gnats and all other venemous and ſtinging flies joyning all their forces and coming together in troops and ſwarms, had agreed as being ſent by God to break the pride of the *Ægyptians*.

They fly in the air aloft in manner of an Obeliſk or Pyramide; eſpecially in the evening, they play up and down by hedge ſides, when it is hot and fair weather, they fly in the ſun-ſhine, againſt rain in the ſhade. It may be they are the ſame with thoſe we call *Midges*, and doth not much differ from that which *Albertus* cals *Schaggen*; the Italians, *Zenzalis*; the Heathen, *Cinifes*. There is a kinde of Gnat which the Greeks call [illegible]; the Latines, *Herculei*; in ſloth and malice like to Drones, and never wound or hurt any but thoſe of their own name and alliance; for as ſoon as they perceive other Gnats full of bloud and moiſture, after they have fought with them, they take them for their prey and eat them; whereas they live idly and do nothing elſe but ſeek for their food gotten by the labours of others. Our Anceſtors have obſerved a kinde of Gnat to be bred in the ſowre Lees of Wine. Which becauſe they are not heard to ſing or make any noiſe, I had rather think them to be thoſe which *Scaliger* cals *Vinulæ Muſciliones*, Wine-flies. Nor do I paſſe for the opinion of *Niphus*, in regard they deſire ſowre things, and refuſe ſweet: when as he himſelf ſaith elſewhere, that they are fed chiefly with the juice of Oxe dung, than which nothing can be more ſweet.

The Engliſh *Gnats* are not ſo ſtinging as others, nor do they raiſe ſo great pimples, but the leſſer ſort of them is the more cruel, and yet they leave nothing behinde them but a little itching ſpot, like a flea-biting. The Gnats in *America*, eſpecially thoſe they call *Tetin*, do ſo ſlaſh and cut, that they will pierce through very thick cloathing. So that it is excellent ſport to behold how ridiculouſly the barbarous people when they are bitten will frig and friſk, and ſlap with their hands their thighs, buttocks, ſhoulders, arms, ſides, even as a carter doth his horſes. The Gnats about *Terra incognita*, or *New-found-Land*, and *Port Nicholas*, as alſo in divers other Northern parts, are to be ſeen in great numbers, and of an extraordinary bigneſſe, as the Sea-men and *Olaus magnus* affirm. The cauſe of their multitude *Cardanus* attributes to the unintermitted heat and the length of the day. The cauſe of their bigneſſe to that watery and and unctuous moiſture which was gotten together by reaſon of the long cold. But foraſmuch as in the hotter parts of the *Indies*, as *Oviedus* (and experience) teſtifieth there are altogether as great, and many more ſorts greater and ſtore, *Cardanus* may well ſatisfie himſelf, though he cannot do me.

The Generation of Gnats.

Of the Generation of Gnats Natures ſecretaries do diverſly diſpute: *Albertus* ſaith their material is watery vapours. *Ariſtotle* denies that Gnats ſhould be generated of Gnats unleſs by means of a little worm as Flies are. But ſince that they do not uſe copulation, I do not perceive how that can be. *Pierius* was the firſt that taught how that Gnats do come of certain worms breeding in wood, when as yet every man knowes that Gnats are produced of worms in the *Navew*, *Privet*, *Maſtick*, *Turpentine*, *wilde Fig-tree*, and other like Trees, as if ſeed were ſown, and that not by way of putrefaction, but animation.

I did chance to finde (ſaith *Bruerus*) in a dirty filthy ditch an Inſect with very long feet, which for the likeneſſe of the form, you would ſay was one of the larger ſort of Gnats coming forth of a ſoft leathern purſe. I did imagine that it might be bred of ſome worm like unto the canker ſhut up therein; for the ſhell within was ſuch as thoſe the cankers transform themſelves into; Whether it ſhould be called *Culex*, a greater Gnat, or [illegible], it is doubted by the Author. To theſe (as to all other the like hurtfull Inſects) the merciful Creator hath granted but a very ſhort life, inſomuch that they which are bred in Summer never live till Winter, and they that are bred in Winter never ſee a Summer.

The Uſe.

Yet notwithſtanding God hath created them for divers uſes, whether we reſpect God himſelf, or other creatures, or our ſelves. For not only *Mynutii*, *Mynſii*, *Aſtabarani*, *Arrhetenſes*, *Guavicani*, were by the juſt judgement of God, driven out of their cities into deſerts and ſolitudes, as *Pauſanias*, *Leo Afer*, *Ælian*, and the *Indian* Hiſtories relate: but even the *Ægyptian* Tyrant, of all that ever the earth bred, the moſt cruel, (as the ſacred Scriptures that are more ancient then all the Heatheniſh *Jupiters* or other gods, do teſtifie) was vanquiſhed with an Army of theſe. The leaſt of thoſe the Pope could not rid out of his throat, but was with one of them miſerably choaked. With what a fierceneſſe did they charge the Army of *Julian* the *Apoſtate*? how did they make him turn his back, and fall down dead? Let Apoſtates from the faith conſider, and weigh the matter well; let them think more ſeriouſly of the ſtrength, power, and majeſty of the Creator, when as they ſee ſuch cruel ſtings and more ſharp than any poynard whatſoever, to be in ſuch an abject contemptible creature as this is. Neither doth God make uſe of them to puniſh wicked and ungodly men, but alſo for the preſervation and ſafety of mankinde. For about *Meroe* and

Aſtaboras, as *Strabo* reports, ſo great is the plenty and fierceneſs of the Lions, that unleſs they were chaſed away by a great kinde of Gnat (that troops up and down all that Region) they were not able to live in ſafety, not in the moſt fenced Cities from their invaſion. The ſame is wont to happen in ſome parts of *Meſopotamia*, as *Ammianus Marcellinus* writeth, where the Lions being ſtung with the Gnats, and defrauded of any remedy againſt them throw themſelves headlong into rivers, and are drowned in the deep. To the *Ægyptians* alſo, although ſometime they were deadly enemies, yet are they now auxiliary to them, as *Herodotus* writeth, in that they wound and ſting to death the young *Axillæ*, before they get feathers, being noxious to them. Moreover were it not for them, the whole ſpecies of *Bats*, water *Frogs*, and bank *Swallowes*, which prey upon the Gnats and feed only upon them, would periſh. But whereas *Gaza* ſaith that the Bird called *Cnipologus* (a kinde of Wood-picker with an aſh-coloured back) doth eat, Gnats doth not agree with their nature. For that kinde of Bird feeds on a little worm that breedeth in the rotten wood, called *Coſſus*, the which he picketh out with his bill: He was deceived, it ſeemeth, by the Amphibology of the word, which ſignifieth both thoſe worms, and Gnats alſo, for ſo are they called in Greek κνῖπες. But if there were ſuch a Bird, I ſhould affirm without all doubt that it is the Nycter, which by *Heſychius* and *Varinus* is called *Konopothera*. The Gnats called *Pſenes* do cauſe Figs to ripen, by taking away their milky moiſture, and by bringing in the Sun beams with them: and for that reaſon in thoſe places where Figs do grow, they are bred in the wilde fig-tree, that from thence being blown with the wind, they may light amongſt the fig-trees. By which words of *Pliny* it is manifeſt that Caprification is nothing elſe but a certain skill how to cauſe the Gnats when bred in the green or raw wilde Fig, to fly to the Figs, that they by the waſting of their milky juice and moiſture may bring them the ſooner to maturity: the which is brought to paſſe two manner of waies: for either the wilde fig-trees were ſo diſpoſed round about the Fig-trees, that wind might blow them thence unto them; or elſe wilde figs being gathered elſewhere, and bound together in a bundle, were caſt into the trees; and therefore the little beaſt like to a Beetle, called in Greek κέραμβος, with his noiſe ſcaring away the Gnats, and feeding on them if he catch them, the Fig-keepers are wont to chaſe away and deſtroy.

The Gnats alſo ſeem to be more worthy eſteem than the ordinary ſort of Almanack-makers; for they will tell you the weather at all times for nothing, and that more certainly and truly, than they which boaſt themſelves born by the *Tripos* of *Apollo*, and a long while brought up at *Cuma*. For if the Gnats near Sun-ſet do play up and down in open air, they preſage heat; if in the ſhade, warm and milde ſhowres; but if they altogether ſting thoſe that paſſe by them, then expect cold weather and very much rain. When a Gnat comes forth of the Oak-apple about *Michaelmas*, it foretels war and hoſtility; if a Spider, dearth; if a worm, fertility and fruitfulneſs. *Mizald.* If any one would finde water either in a hill or valley, let him obſerve (ſaith *Panano* in *Geopon.*) the Sun-riſing, and where the Gnats whirle round in form of an Obelisk, underneath there is water to be found. Yea if *Apomaſaris* deceive us not, dreams of Gnats do foretell news of war or a diſeaſe, and that ſo much the more dangerous as it ſhall be apprehended to approach the more principal parts of the body.

Upon a certain time there was ſeen in the air between the Monaſteries of *Sion* and *Shene* in *England*, ſuch a pitch'd battel of Gnats, that you could not ſee the Sun at mid-day. The fight was maintained for four hours, as long as the Armies could ſtand; at length a mighty ſlaughter being made on both ſides, ſo many dead carkaſſes of Gnats were found in the hedges and highwaies, that they were feign to ſweep the corn fields and medows with beeſoms. There followed upon this the baniſhment of the Monks in both the Monaſteries. *Stow.* Whether this be true or no, I leave to thoſe that can reſolve ſuch truths; I proceed to that may be of more certainty to be taken notice of.

Of great uſe are the Gnats unto us, when as the Fiſh called *Thymallus* (as *Ælian* witneſſeth) can be taken with no other bait then with Gnats. But as they are ſometimes uſeful and profitable, ſo are they for the moſt part very irkſome and troubleſome, wherefore nature and experience have taught us remedies againſt them. To which end you may make a Fumigation or Perfume of Pomegranat Pills, Chamæleon, Thiſtle, Lupines, Wormwood, Griſt, Pine, Fleabane, Elecampane, Cedar, Radiſh, Cummin, Rue, Hemp, Dung, Galbanum, Caſtoreum, Feaver-ſtone, Hartshorn, Goats-hoofs, Elephants dung, Brimſtone, Sulphur, and Vitriol, which will drive them away.

There are preſcribed alſo theſe compound receipts: take roots of Elecampane 1 dram, *Ammoniacum, thymiama, ſtorax*, of each 2 drams; burnt ſhels 2 drams, put all theſe into the fire and perfume your cloathes. Another; Make powder of Harts-tongue, and with Vitriol perfume them. Another; Take Wine-lees dryed, and Ceruſe, of each alike, with Copperas and Oxe dung, perfume them. *Aetius.* Another; Take Vitriol, wilde Gith ſeed, Cummin ſeed, of each alike, with Oxe dung, ſmoke them. Alſo the vapour of very ſtrong Vinegar, and of Origanum, doth chaſe them away. Another; a Sponge dipt in Vinegar and burnt in the houſe drives them away. So Wormwood, with Radiſh Oyl, by anointing preſerveth from Gnats. *Novus.* *Palladius* adviſeth to ſprinkle new *Brine* and *Soot* in the chambers of the houſe. Rue dipt in a decoction of Fleabane, and laid in the ſeveral corners of the houſe, kills the Gnats. *Ruellius.* If you make a circle of green wet Hemp about the bed, Gnats will not trouble you. *Geopon.* If you anoint your ſelf with Oyl, or the Manna of Frankincenſe, they will preſently be gone. The trees that grow in watery gardens, and plants infeſted with Gnats, are freed from them by burning of *Galbanum* as *Pliny* ſaith. But a prodigious, that I ſay not ſuperſtitious, remedy ſeemeth that of *Rhaſis* to be, I know from what jugling *Democritus* he had it, hang ſome horſe hair and make it faſt in the middle of the door, and Gnats will not come in at it. But why ſhould Vinegar kill them, a thing which they naturally deſire and thirſt after? unleſſe it be the vapour of that thing that deſtroyeth them by taking away their breath (as it often comes to paſſe) whoſe ſubſtance would nouriſh them. *Apollonius Tyaneus* (as *Tzetzes Chil.* 2. hath left recorded) did ſo order the matter that no live Gnat could come into the Cities of *Antiochia* and *Bizantium*. But ſince we do not ſee how that ſhould be done, the leſs credit may be given to it.

The Grecians have deviſed a kinde of tent or covering in manner of a net, of linnen, woollen, or ſilk; which being hung about their dining rooms and beds, kept the Gnats from entring in. Our Countreymen that live about the Fens have invented a canopy (the firſt that ever I read of) with leſs coſt, but the ſame profit, which they call a *Fen-canopy*, being made of a broad, plain, half dry, ſomewhat hard piece, or many pieces together of Cowes dung, and theſe they hang at their beds feet: with the ſmell and juice whereof the Gnats being very much taken and feeding thereon all the night long, let them ſleep quietly in their beds without any diſturbance or moleſtation at all, being ſufficient reward for their pains ſo taken. In the day time they are kept off with a fly-flap made of Peacocks feathers or other the like things bound together; unleſs they be very numerous, and ſmall Gnats, for then they will fly into the eyes, ears, noſtrils, and mouth alſo, and taking greater courage to them, ſting more ſharply, notwithſtanding theſe Remedies.

CHAP. XIV.

Of Butterflies.

THE Butterfly is called of the Greeks, ψύχη, πῆρος, ψάλυχες, alſo σποδουλίδες, πημφίδες, πομφόλυγες, σκῶπες; but the more general name is ψύχη. The Latines, *Papilio*, *Ardoynus* calleth it *Campilo*; *Iſidore*, *Avicula*; the Italians, *Farfalla*; the French, *Papillon*, *Papilion*; the Spaniards, *Mariposa*; the Polonians, *Motill*; the Hungarian, *Lovoldeck*; the Illyrian, *Pupiela*, *Meteyl*, *Motyl*; the Germans, *Piſnet*, *Mulk*, *Pfyfholter*, *Summervnegel*, *Zweifalter*; the Flandrians, *Vleghebronſus*, *Boterſhyte*; the Brabanters, *Capelleken*, *Vlindere*, *Pellerin*, *Boter Vlieghe*; the Engliſh, *Butterfly*.

Deſcription.

The *Butterfly* is a volatile Inſect, having four wings, not two (as *Conſtantinus Friburgenſis* dreamed) ſix feet, two eyes ſtanding forth of his head, and two lither Cornicles growing forth from before his eyes: the Butterfly hath a two forked beak or bill, and within thoſe forks is couched another little bill or beak, with which they ſuck in, ſome the day dew, others the night. They couple ſometime with their tails averſe, ſometimes reflex; and continue long in the act of Copulation. They lay and faſten their Eggs, not little worms (as *Ariſt.* imagined) on the top and under the leaves, ſome great, ſome ſmall, yellow, blew, blackiſh, white, green, ſome leſſer then Millet ſeed, ſome twice as big, others juſt as big; according to the colour and natural magnitude of each Butterfly. Theſe eggs being laid in a warm place, or being cheriſhed and cauſed to grow in the day time with the heat of the Suns beams, ſhoot forth a Palmer or canker-worm, at the firſt all of one and the ſame colour with them, but afterwards, as they grow bigger they change their colour. Out of ſome eggs the Caterpillars appear at four daies end, others do not hatch before fourteen daies, which by little and little get ſtrength and fly, but weakly; yea ſome of them being kept from the injuries of cold and hard weather, endure all the winter, as experience doth ſufficiently confirm in the Silk-worm. After copulation all the Butterflies do not preſently die but live in a languiſhing condition, till winter, and ſome to the winter ſolſtice; the leſſer and weaker ſort of them are very ſhort lived; the more ſtrong and hardy continue longer; they appear in the Spring time, out of the Canker-worms, *Aureliæ*, growing by the heat of the Sun, and by the temper of the air being in ſtead of a Midwife to them, they are brought forth. The coming of them is for the moſt part a ſign of the Spring coming on, but yet not alwaies, nor in all places. For although they be very weak and not long lived; yet while we were writing, thus (ſaith *Pliny*) it was obſerved that their iſſue was thrice deſtroyed by cold weather coming again: and ſtrange Birds about the 6. of the Kalends of *February* gave notice of the Springs approach; but a while after with a cruel bitter winter weather that ſucceeded, they were all deſtroyed. We ought not to wonder that thoſe fooliſh *Icarian Aſtrologers* having no ground for what they ſay, do tell us that which is falſe; whereas it doth appear by this, that Nature her ſelf is inconſtant; and we being more addicted to ſecond cauſes than we ſhould, and being unmindful of the firſt Mover, are deceived by her. *Pennius* reports of two ſwarms of Butterflies in one Autumn. Now although I do not deny with long and ſharp froſts they may all die, yet they are able to endure moderate cold, and do live in warm places even in very cold ſeaſons. For how commonly are they found in houſes ſleeping all the Winter like Serpents and Bears, in windowes, in chinks and corners? where if the Spider do not chance to light on them, they live till the Spring.

Ariſt. ſaith that they all take their colour from the worm they are bred of: but yet (if this be granted) they have other colours beſides, as will appear in their particular Deſcriptions and Hiſtories.

They moſt abound in the time of Mallowes blowing, out of whoſe flowers when they have thruſt in their ſnout or *proboſcis*, they ſuck a ſweet juice with which they refreſh their bodies. *Columella* in his Book *de Nat. rerum l. 9. c. 11.* ſpeaketh of the Butterflies thus coupling, and beginning on this manner: *The Butterflies couple after* Auguſt; *after they have coupled the male ſtraightway dies: out of their dung come forth worms.* But all theſe things are ſo horribly ſtrange that they have no ſhew of truth. For their chief time of coupling is in *May* and *July*: neither doth any Male of them die immediately after copulation; unleſs it be of that kinde of Butterflies of which thoſe Caterpillars come which are called Silk-worms. To conclude, thoſe things he ſuppoſeth to be dung, are indeed eggs: out of which come not worms, but a great many little Cankers, out of whoſe caſes come Butterflies.

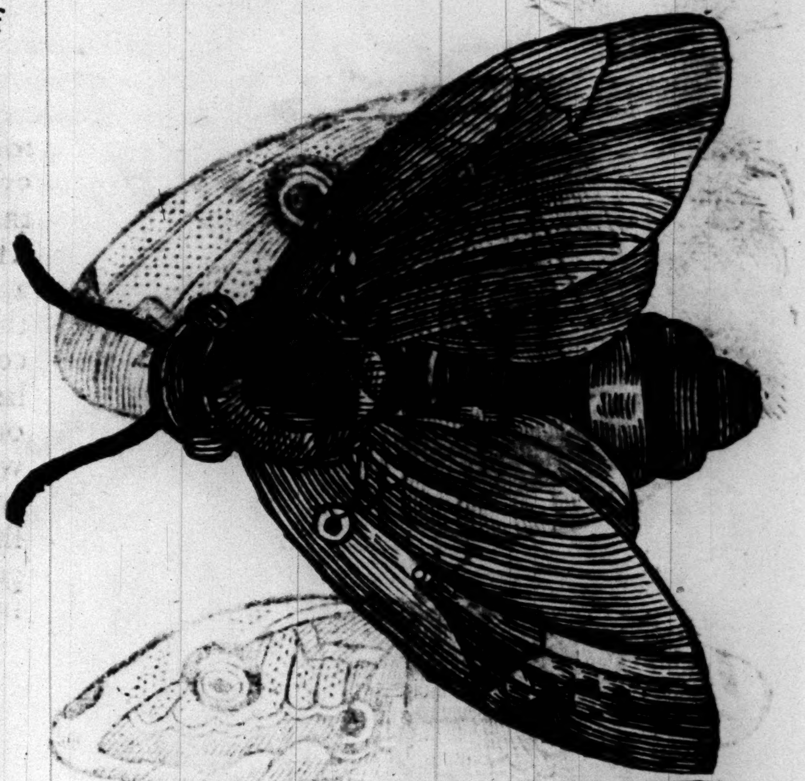
Difference of Butterflies.

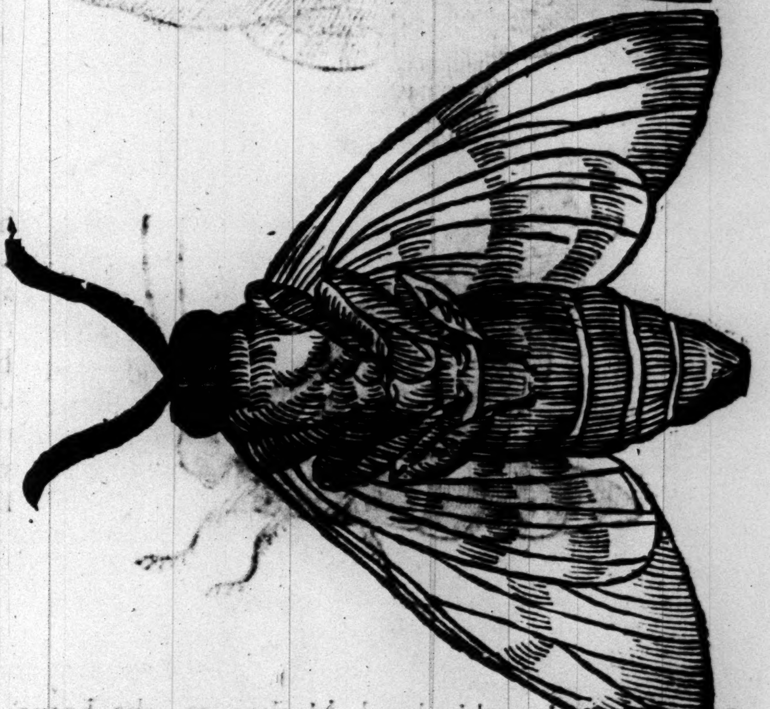
There are ſo many kindes of Butterflies as there are of the Cankerworms: out of whoſe *Aurelia* they proceed. They differ generally in that ſome fly abroad, eſpecially by night, theſe are called *Phalena.* Others only by day, which are called therefore, ἡμερίνοι, or *Day-flies.* The name *Phalaina* is a *Rhodian* and *Cyprian* word; for ſo they (as *Nicander* the *Scholiaſt* witneſſeth) call that creature which flies to the candle, *viz.* (παρὰ τὸ εἰς φῶς ἄλλεσθαι) *Turnebus* out of *Nicolaus* and *Lycophron*, will have φάλλην to be taken for φάλαινα: of whom, becauſe with the motion and force of its wings it oftentimes puts out the candles, is called λυχνοσβέστης, from the roughneſſe, and the bran and meal which ſeems to be ſpread upon it, it is called ψώρα. And becauſe ſome of them are ſo far taken with the love of the light, that they burn themſelves with the flame, they are called *Pyrauſta.* There are thoſe that interpret this *Phalaina* to be the *Cicindela* or Glow-worm, but not rightly; foraſmuch as the Glow-worm never deſires the candle at all, but delights generally and chiefly in a dark night. The Germans call it *ein Leight m'ucken, ein Leight flugen*; the Helvetians, *Flatterſchen*; the Italians, *Farfalla, Paviglione*, and *Poveia*; our North, as alſo the Weſt countreymen, call it *Saule, i. e. Pſychen, Animam*, the *ſoul*; becauſe ſome ſilly people in old time did fancy that the ſouls of the dead did fly about in the night ſeeking light. *Nicander* deſcribes a *Phalaina* thus: which *Hieremias Martius* interprets thus:

Conſider what ſtrange beaſts rude Memphis *breeds*;
One like a flying worm; by candle light;
Wherein he playes as if he took delight:
Driven from meats, whereon at night he feeds.
His wings are narrow, of pale hue, not green,
But more like aſh-coloured to be ſeen.

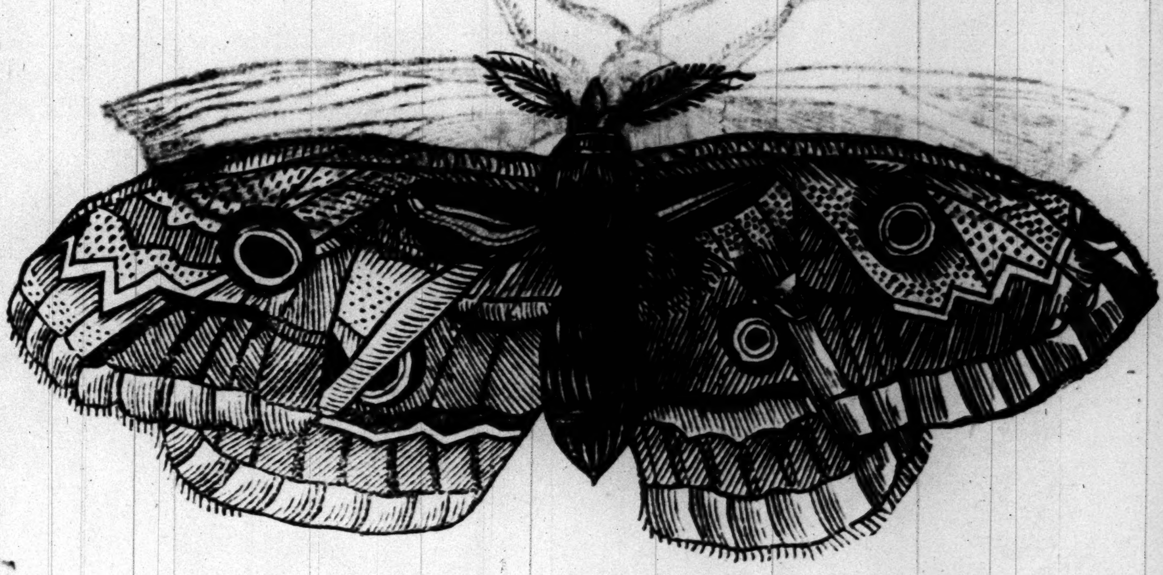
From theſe things therefore we may gather this deſcription of the *Phalena*, that it is a kinde of Butterfly flying in the night, moſt deſirous of enjoying the light; from whence it takes its name, of a body rough, its wings powdered or ſprinkled as it were with a fine kinde of aſhes or duſt; lying hid all the day time under leaves, or in ſome obſcure place of receſſe, in the night flying about the candles, and by its too much deſire of them reducing it ſelf into aſhes: ſeldome or never it flies but with the wings ſtanding upright on the back, as on the contrary the day Flies keep their wings even with their body. Horns they have for the moſt part, either rough and large, or very little and ſhort: but the day Flies more long and tuberous in the extremity of them. The *Phalena* come out of the ſhels of the Canker-worm covered with earth. The day Flies from their *Aurelia*, either hanging upon or ſticking unto the boughs of trees. They are for the moſt part rough, and as it were duſty, flying in the dark, very tender; theſe on the other ſide flying in the day light, are more plain, ſmooth, even, and have no duſt upon them. They fly ſeldome in the day but toward the cloſe of the evening, leſt the duſt that is upon them being dryed by the heat of the Sun and drowth ſhould ſhake off, being never uſed to be wet with rain. But theſe are not able to fly by night, leſt the night dew ſhould wet them quite through, and hinder both their flight and their health: wherefore in rainy weather and all night they ſhrowd themſelves under the leaves, and never fly abroad but in clear and fair weather. The *Phalena* are no leſſe affected with the candle than theſe with the day-light: wherefore theſe rejoyce at the day-ſtar, that is to ſay, the Sun; but thoſe at the night-ſtar, to wit, the Moon, and Stars, and candle-light, reſembling ſomewhat the nature, ſplendor, and glimmering light of the Stars.

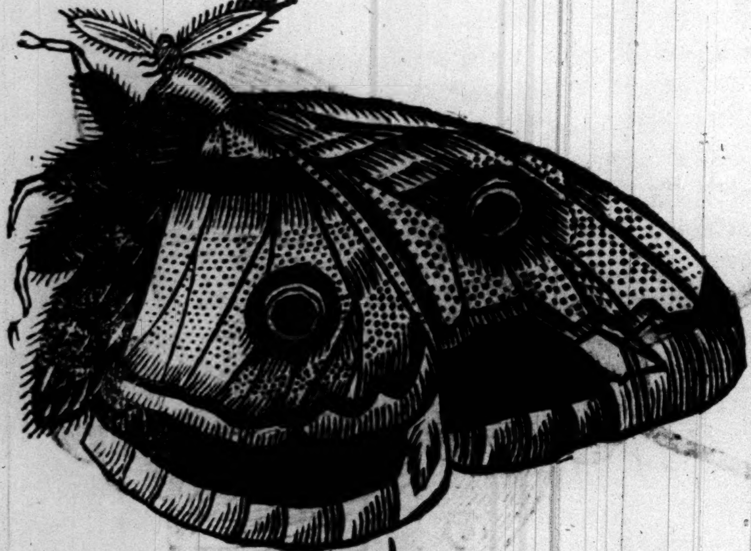
The *Phalena* are all either very big or very little. The bigger ſort of them have their belly and alſo the inſide of their wings altogether of a ſandy colour. The eyes ſeem blue, the head blackiſh; between the eyes come out two duſky coloured horns, Eagle coloured, with black croſſe lines wreathed like a rope. Upon the ſhoulders there is a kinde of ſandy duſky coloured roll or welt: from whence a black croſſe ſpot is drawn to the end of the ſhoulders. The body if you look on the backſide, is of a bright blue or azure, if on the belly, it is of a ſandy colour. The two outmoſt wings are very large and Eagle-coloured, finely ſet with ſpots and white circles, the innermoſt are far leſſe and yellowiſh, adorned in the inſide with certain duſky ſtreaks and ſpots; it hath thighs brawny and ſtrong, all of a duſky colour, and at the end forked and black. It flies with a great noiſe, and being blinde in the night, what ever gliſtering there be ariſing of rotten wood, ſcales of fiſh, or the like, it greedily followes. As great Tyrants devour and ſpoil their ſubjects, ſo thoſe night-walking Butterflies batter with their wings and deſtroy thoſe that fly by day, being by night lodged under leaves.

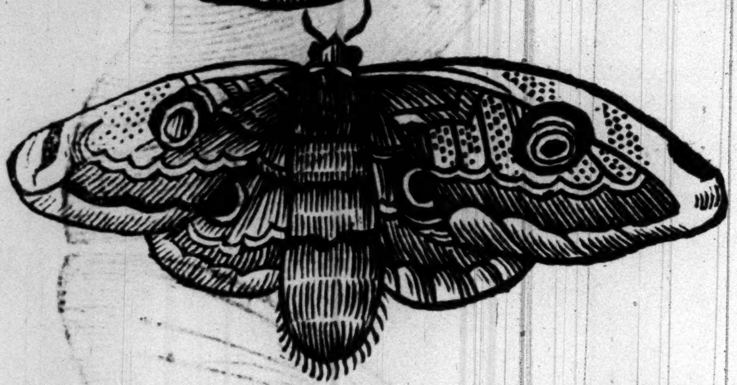




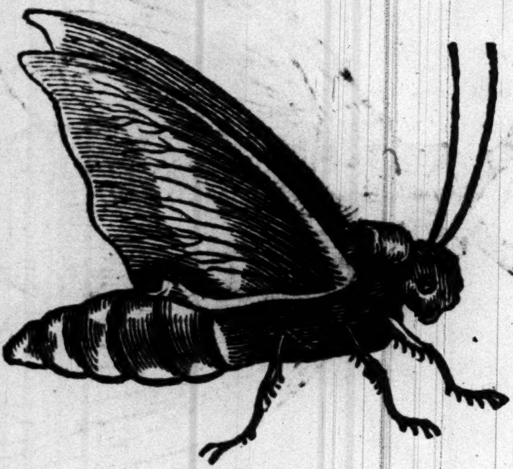
The ſecond *Phalena* of the firſt magnitude, as it is ſomewhat leſſe in bulk of body than the former, ſo it far excels it in the gloſs and ſplendor of colours: as if Nature in adorning of this had ſpent her whole painters ſhop; and had intended the former for the King of Butterflies, that is to ſay, ſtrong, valiant, blackiſh, freckled: and this for the Queen, delicate, tender, fine, all beſet with pearls and precious ſtones, and priding it ſelf in embroidery and needle-work: her body downy like Geeſe, ſomething ſmooth and hairy, like Martens or Sable skins; the head little, great eyes ſtanding out, two cornicles like feathers, of a yellow or boxie colour: ſhe hath four great wings, every one of them having eyes of divers colours, the apple whereof is black, the circle or roundle next to it of various colours, with yellow, flame-like, white, and black coloured circles, and ſemicircles. The outer wings from their original to their extremities are whitiſh, beautified with certain little veins and ſpecks; the edges whereof are adorned with a welt or guard, and a hem of dunniſh or dark yellow colour: the inner wings brown or tawny, having one eye apiece as the former, with a threefold border, the firſt whereof is plain, the middlemoſt part going in and out like a ſcollop (both of a fiery colour) the outmoſt of all of a pale white, and as it were ſown on by ſome Skinner or Furrier; ſhe goes upon ſtrong, rough, brawny thighs, of the ſame colour with the reſt of her body. This did *Carolus Cluſius* ſend from *Vienna*, of ſo elegant and notable figure, that it is eaſier to wonder at and admire, than with fit expreſſions to deſcribe.





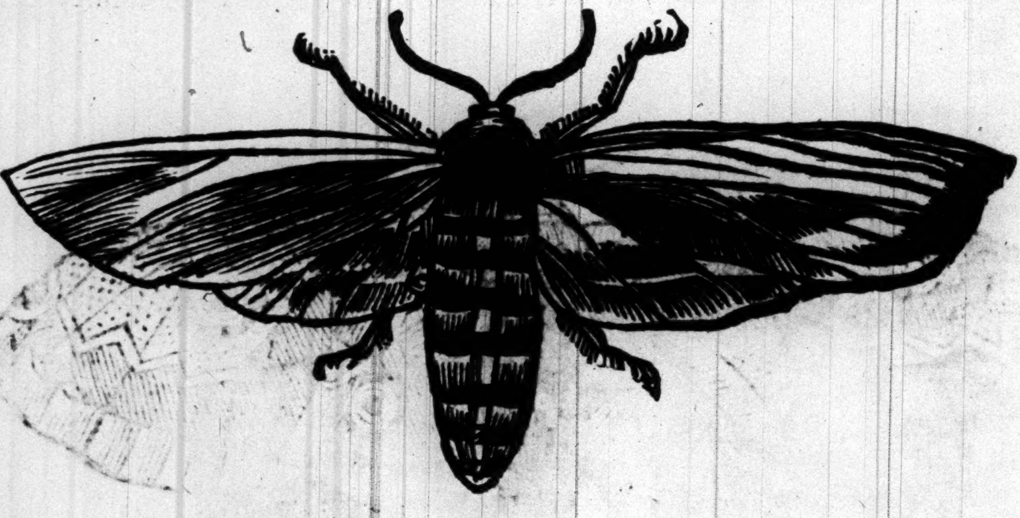


The third ſort hath a great body rough and blackiſh; each wing hath one eye, the ſight or apple whereof is black, the roundle brown, the half circle white. There are divers pieces in the wings of a watry *Amethyſt* colour, the edges of the wings at the firſt ſight appear aſh-colour, afterwards Eagle-colour. The head very ſhort and little, putteth forth on either ſide a black eye, the apple whereof is of a notable whiteneſs, between thoſe break forth two very ſmall ſhort horns of a dunniſh colour. It is begotten of a rough Canker-worm, not a ſmooth.

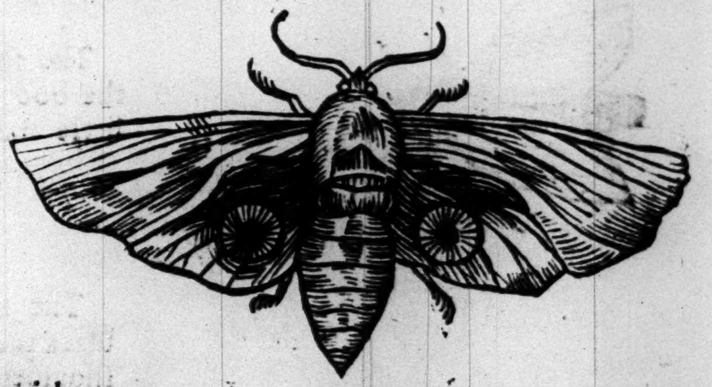


The fourth hath a great dark coloured head, out of which ariſe two ſtreight cornicles ſomewhat black, the neck is adorned with vermilion ſpecks, the breſt rough, ſquare, duskiſh, the ſhoulders coal black, the belly of Amethyſt or purple colour, divided with five or ſix circles or rounds; the feet black as pitch, the wings of a light brown, full of long black little veins.

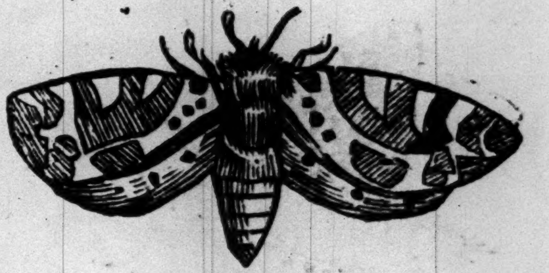
The fifth hath a white head, black eyes, the horns a little yellow, the outmoſt wings long, of a ſad colour between white and brown, the innermoſt being lightly and as it were by the by coloured reddiſh, the ſhoulders very black, the reſt of the body ſomewhat of a roſe colour, bound about with ſeven black circles, a white line running all along the middle of the belly.



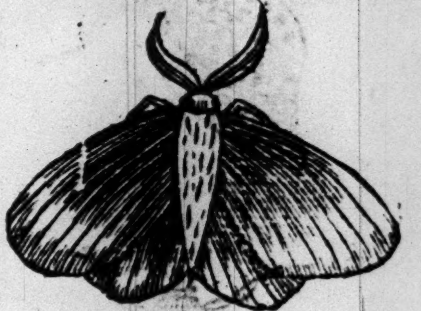
The ſixth hath head and ſhoulders rough, and the utmoſt wings drawn with blood colour lines, are a white brown; the eyes of the head ſtanding out, of a violet or azure colour; the inner wings ſomewhat of a carnation, repreſent the eye in the middle part, ſhining with the apple crow black, the circle about it purple; the body like dried fleſh, and a little ſmoak't, divided with ſix roundles black and brown.



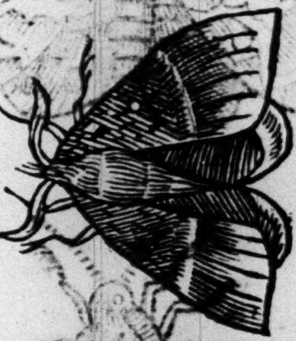
The ſeventh hath the outer wings white, with certain brown ſpots here and there as if it were watered Chamblet; the neck ring'd about as it were with a red ſkin reaching all down the ſhoulders like a Fryers cowle; the head is red, the eyes pearl colour, the horns flame colour; the innermoſt wings of a ſhining red ſpeckled black; the feet red, the belly all of the ſame colour, with ſeven inciſures or clifts of a deep red lead colour.



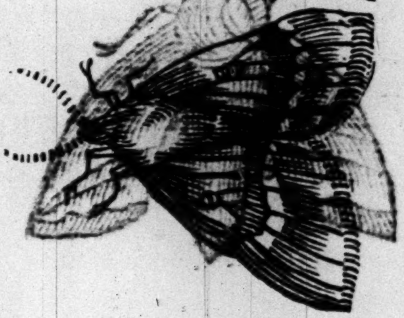
The eighth is almoſt all over brown, but the edges of the wings and the middle part of the horns are of yellow or box colour.



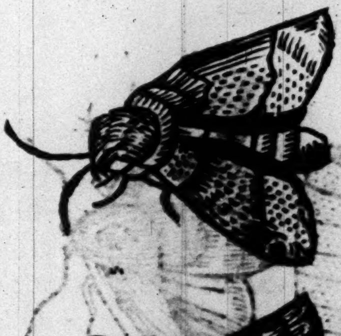
The ninth is almoſt like unto it, but that the edges of the wings are like black ſand, it hath horns broad and bended, of a whity-brown colour, the middle of the outermoſt wings ſtopped with a round white ſpot.



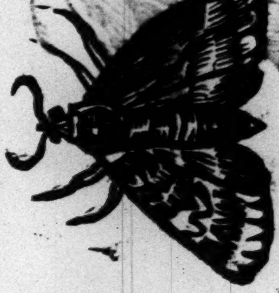
The tenth is of a like bigneſſe, all over of a white brown, but that the middle of the outermoſt wings is marked with a white ſpot, and the eye with a very black apple.

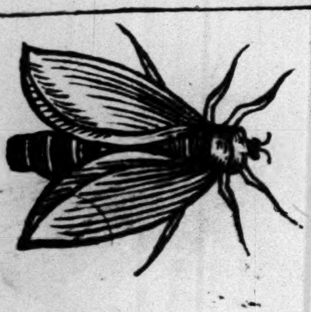


The head of the eleventh is tuberous, the horns ſlender, the body like clay trodden; otherwiſe the wings are all of a dark ſilver colour.

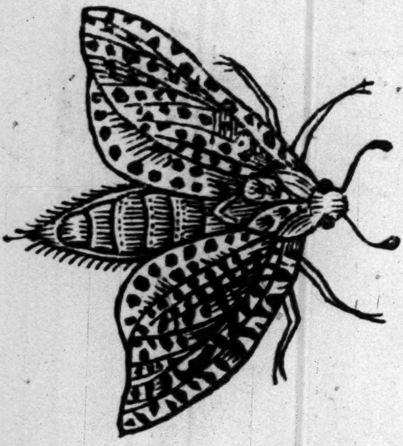


The twelfth ſomewhat of an aſh-colour, the wings ſpotted black, the eyes black, the apple white.

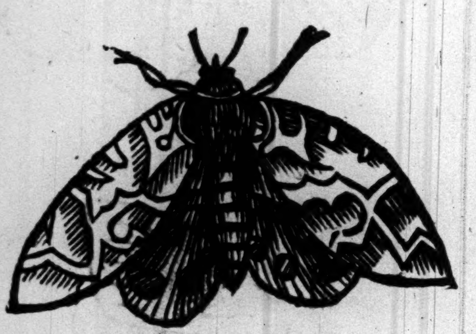




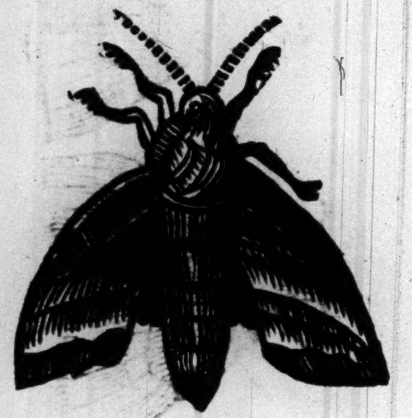
The thirteenth hath very little or no horns at all, the body all over yellow, except the eyes (which are little and black) and the wings which are whitiſh.



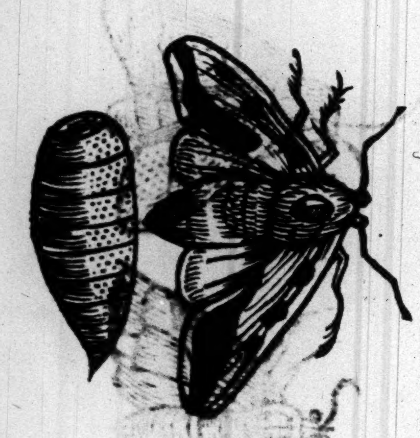
The fourteenth appears of colour various, it hath black tuberous horns; as alſo the eyes and feet; the ſhoulders are dreſt with five white plumes as it were, of which the two middlemoſt have three black ſpecks; the wings ſnow white, beſpeckled here and there with black, yellow and blew ſpecks; the body ruſſet, articulate or jointed, the ſides whitiſh, ſhe puts her tail in or out as ſhe pleaſeth, it is ſharp, yellowiſh, jointed; all the body as it were ſprinkled with duſt; otherwiſe in regard of the tuberous cornicles it had come in the number of the day Butterflies. It layeth abundance of yellowiſh eggs, in the laying whereof ſhe puts forth a little tail, which ſhe puls in again at pleaſure.



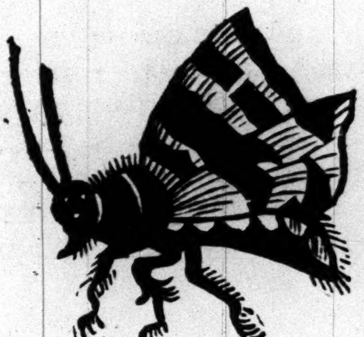
The fifteenth hath two black ſlender cornicles, the head and ſhoulders hairy, of a dun colour, the neck adorned with a collar of Vermilion, the ſhanks reddiſh; the outmoſt wings chamoletted with white and dun, the innermoſt are exactly red ſpotted with black ſpots; the body of a light vermilion, rounded about with ſix black guards, or welts.

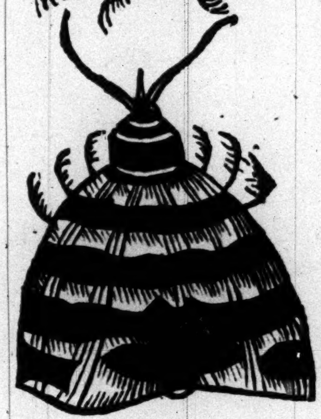


The ſixteenth ſeems to be very rare: if you look upon it as it lies on its back, it ſeems to be all over of a murry colour; if as it lies, green and yellow; it hath five very red lines or ſtreaks drawn along the ſhoulders; as alſo ſeven ſpots ſet quite through the middle of the back, do adorn the reſt of the body: the wings alſo traverſt with murry ſpots or ſhadows rather, the beginning whereof from the head to the bottom of the breaſt is terminated with a line of whitiſh or ſilver colour.

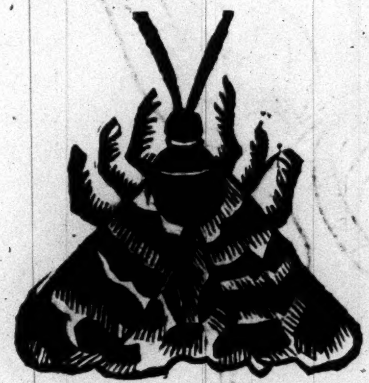


The ſeventeenth, when it goes upon its feet and its wings cloſe to its body, looketh dun; but when it flieth with the wings ſtretcht forth, the innermoſt wings are carnation ſet about the edges, with a blackiſh liſt or border: it hath very long cornicles, and the promuſcis or ſnout doubled in or rolled up together: the gray ſhoulders are marked with round ſand colour ſpots; the ſide alſo, and all the joynts of the body are ſet and edged about with hoary hairs.





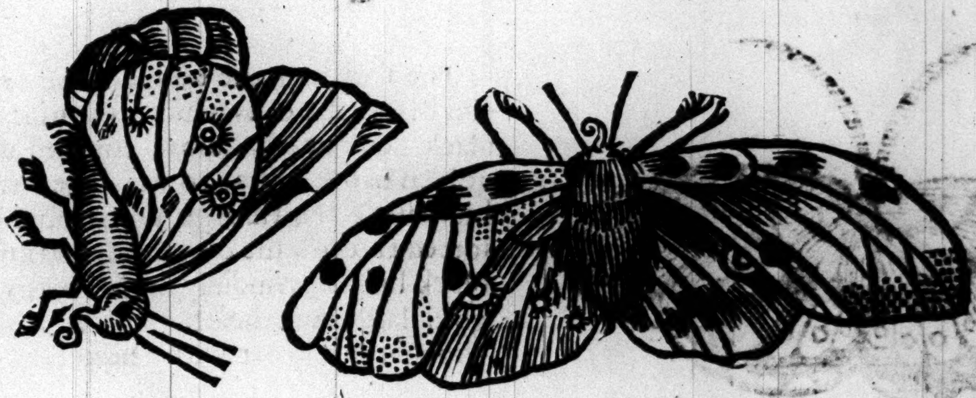
The eighteenth being very rare indeed, was ſent me by *Cluſius*. The hornes whereof pide colour, the head black as pitch, the noſe crooked, the circle of the eye white, the neck ſcarlet or crimſon; the ſhoulders being rough or hairy, are covered as it were with a ſable mantle; the outer wings decked with a white and black hem; the innermoſt red ſpeckled here and there with black ſpots; the body black, as likewiſe the feet; but the ſides of the body are ſet out on each ſide with ſeven bloud-colour ſpots.



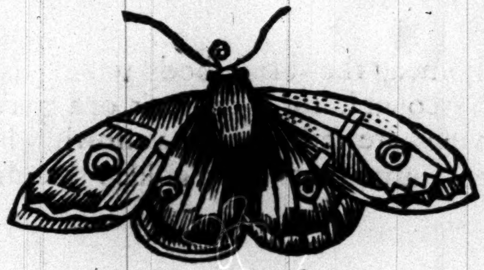
Like unto this there was another ſent, but with the cornicles altogether crow colour; and on the middle of the ſhoulders dreſſed with a pure white liſt, as it were with a ſtring of pearl.

Of all theſe the bodies ſeem to be of a great bigneſſe.

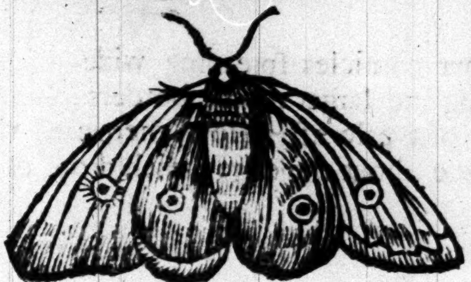
Now we ſhall addreſſe our diſcourſe to the middle ſort of *Phalena*.

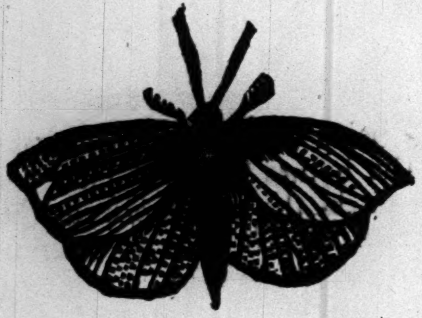


The firſt of which is white all over, but only that the outer wings are bedawbed with certain black ſpots & freckles; and the innermoſt with very red ſpecks and pimples white in the midſt; the eyes very black, the feet and horns yellowiſh; in ſtead of a noſe there comes forth a rough hair or briſtle, the which is wound round up together like a roll.

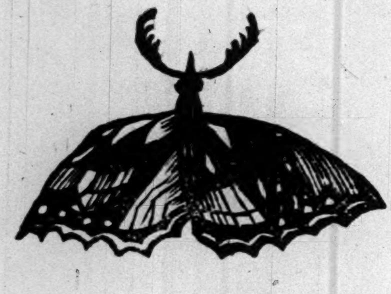


The ſecond, the whole body rough or hairy, and of a light red; and ſo are the outer wings, were it not for whitiſh ſpots, and hems that go about, and yellow little eyes in them; the cornicles being yellow, are marked with black ſpots; the inner wings are of the colour of the marygold, but adorned with eyes and hems like the former.

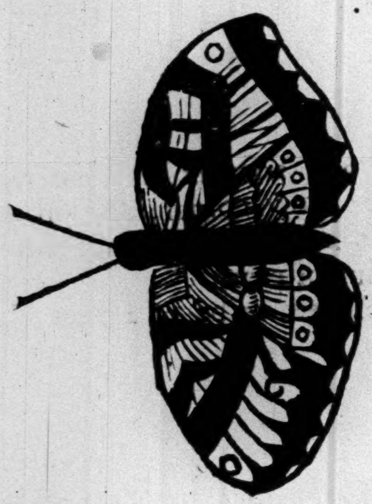


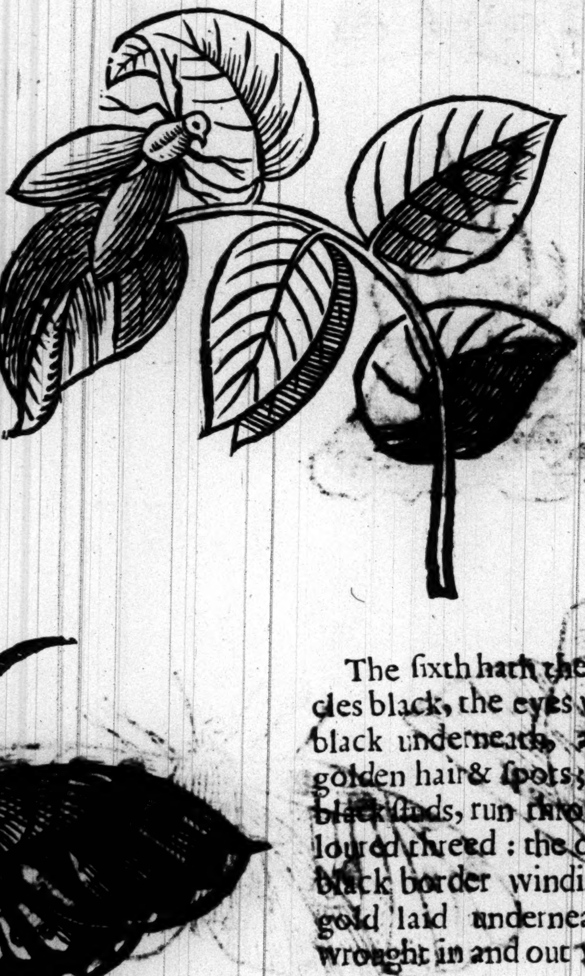


The third hath four white wings; the outer wings overcaſt with little blew veins here and there plentifully, and two round blackiſh ſpots in the middle; the line that is about the wings is yellow, and the cornicles of the ſame; the head and body black, the eyes exceeding white, the ſides of the ſhoulders are marked with four very white oblique lines on each ſide.

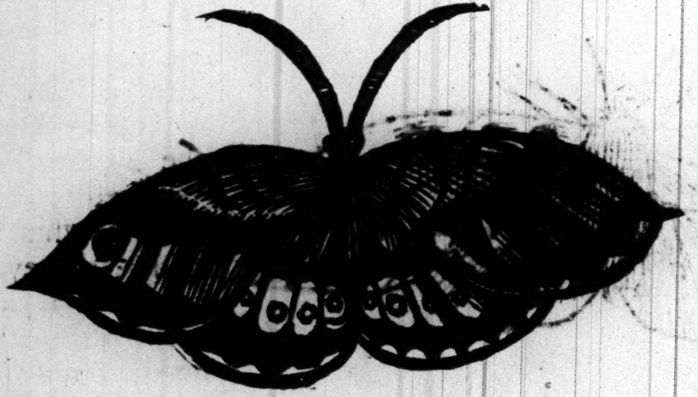


The fourth hath broad horns of crane colour, the body black, the ſides gray, the wings yellowiſh, all over beſprinkled with black ſpots like dragons, broad at the top, and afterwards round; the edge of the wings like the Bats ſnagged, and as it were prickly, all over black, within ſix white ſpecks; pearls being placed on each ſide do ſet it out.

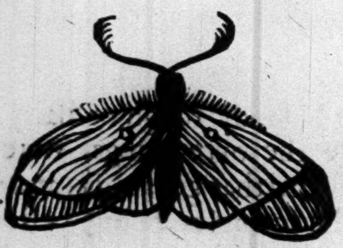




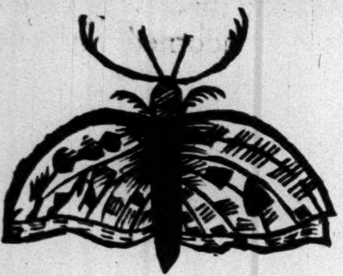
The fifth is all over black, but that it hath pale reddiſh ſpots upon the wings.



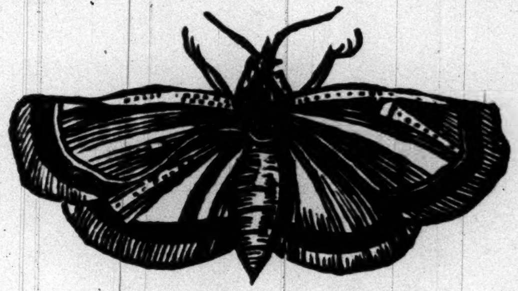
The ſixth hath the body and the cornicles black, the eyes white; the wings are black underneath, above trimmed with golden hair & ſpots; to which are joyned black ſtuds, run through with a ſilver coloured threed: the outmoſt wings have a black border winding in and out, with gold laid underneath, and as it were wrought in and out with a needle.



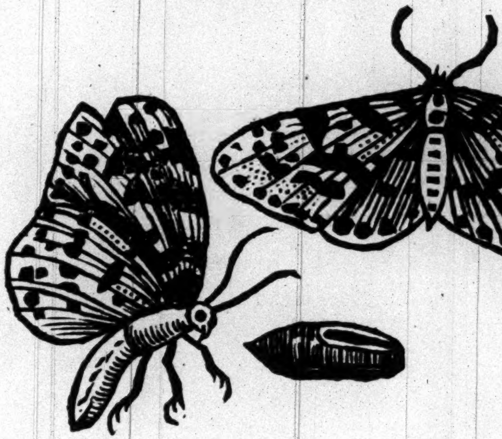
The ſeventh broad horned, the black body waxing hoary; I know not whether I may count it for a diſcredit or a grace to it. The beginning of the wings are red, the reſt yellowiſh, but each part emboſſed with black ſquare ſpots and a golden threed running along the edges.



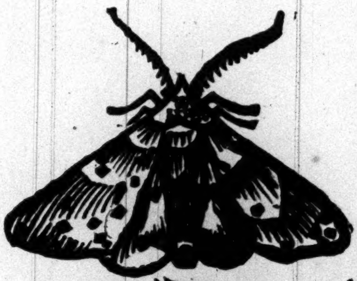
The eighth hath four cornicles ſpreading wide, of aſh-colour, two of them very long and larger in the borders; the body like the former, the wings of a pale aſh-colour, chequered with black, and painted every where about the edges with drops of the ſame colour.



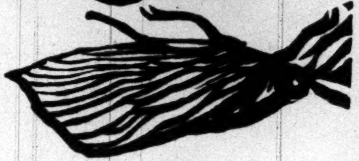
The ninth, the head, eyes, cornicles, body, and innermoſt wings do repreſent the golden ocre; the ſhoulders and outmoſt wings are black, but only for a black border, having on each ſide of it an aſh-colour line.



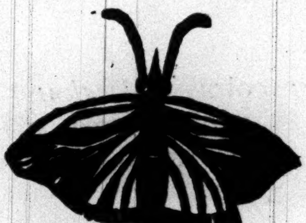
The tenth hath its body yellow, bedropt with black from the neck to to the tail, both back and ſides; the eyes, cornicles, and feet perfect black, the outermoſt wings white, but garniſht with borders of yellow, black ſmall ſtuds, and ſpots likewiſe.



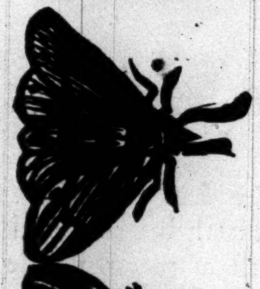
The eleventh if you look on the wings, it is ſnow or milk white, but only that it is all to beſpeckled with little black ſpots; the ſhoulders alſo are white and downy; the body and back yellow, and joynted, having eight little black ſpots; the eyes big and ſtanding out of the head, between which ſprout out two black and hairy cornicles. In the night time ſhe flies about the meadowes and paſtures.



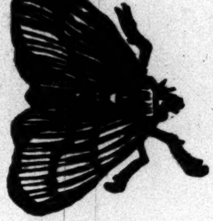
The twelfth hath its wings ſo long that it can ſcarſe fly; it hath very ſhort cornicles, little very black ſmall eyes, all the body elſe is white, being here and there ſprinkled with certain yellow veins and hairs.



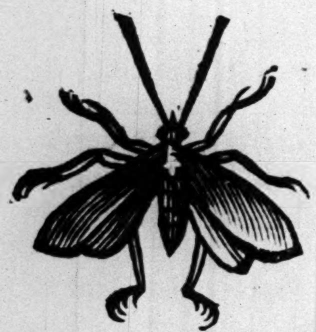
The thirteenth (except its black eyes) is of a Crane-colour, ſomewhat blackiſh; the cornicles more than ordinary long, the body rough and hairy, the wings of the ſame colour with the body, but about the edges gliſtering with a greeniſh, glaſſie varniſh.



The fourteenth is a very rare one, though all over almoſt of a ſand-colour; it hath cornicles for the bigneſſe of the body, ſtrong, black, and crooked like the oxe, the eyes great and black, the head ſhort, the neck thick; the outermoſt wings adorned with certain black ſtuds; the ridge of the back is dreſt up as it were with five black heads of Gilliflowers, three forked.



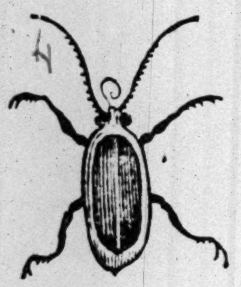
The fifteenth hath its wings of a pale aſh-colour all over, amongſt all the reſt it is deſtitute of cornicles, the eyes are ſomewhat black; the back yellowiſh and ſet with five dusky coloured ſpots.



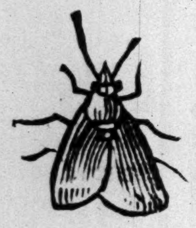
The ſixteenth ſeemeth to be of the ſame colour, but that it is ſtreaked with black athwart the outermoſt wings: but this is every where of one colour (except the eyes which are black). It hath a long body, joynted, four long narrow wings, ſix feet, thoſe behinde are twice as long as thoſe before, it hath ſlender cornicles but growing out very far.

17. This comes of the Caterpillar of a Silk-worm, white all over but the eyes, which are blackiſh, and certain ſmall yellowiſh veins running ſtraight over the wings, and croſſe the joynts of the body: I call it the Silk-worm *Phalena*. Of which more in the ſtory of the Silk-worms.

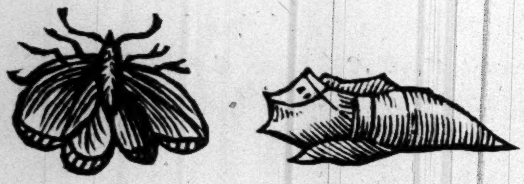
The leaſt ſort of Phalenæ.



1. In the Claſſis of the leaſt ſort of all, we ſhall place one and the firſt very admirable, going on four very black feet; it hath the outer wings azure, the innermoſt yellow, and the innermoſt (which is not uſual) leſſe then the outermoſt; the yellow body alſo is ſo big, that the wings can ſcarce cover it; the cornicles are full of little points, and the eyes all but the ſight blackiſh; the head and the ſnout (being long, ſlender, and rolled up together) are ſomewhat yellow.

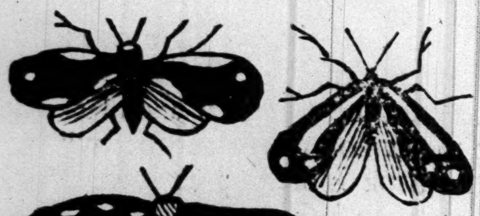


2. The ſecond appears blue and green, it hath a little body, the feet and cornicles blackiſh.



3. The third hath the ſhoulders and wings greeniſh, of the colour of leek blades; the body dunniſh; the outmoſt wings are guarded with a guard ſet with white and dun ſpots; it hath a very little head, the feet and the cornicles aſh-colour.

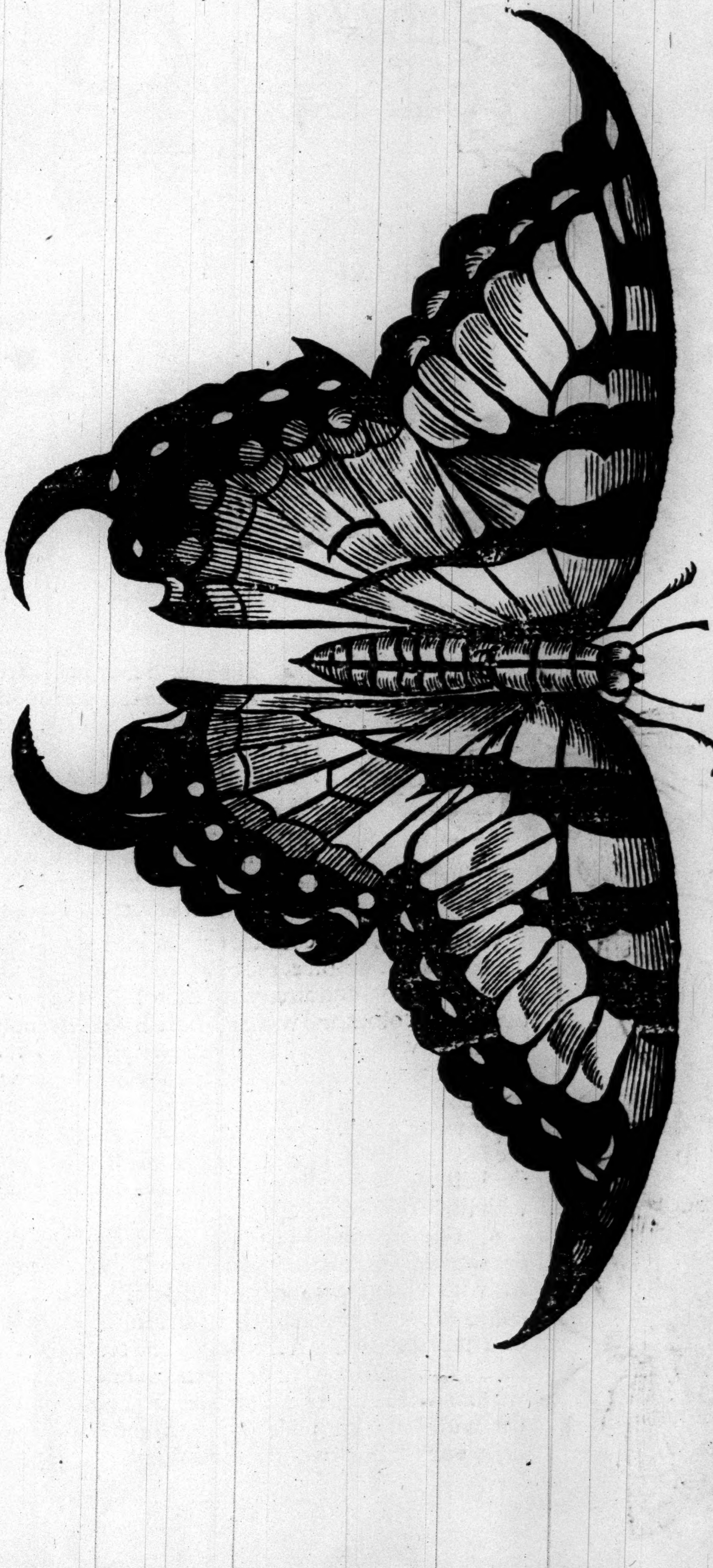
Moreover there are found in houſes a certain ſort of little ſilver coloured *Phalens*, marked with black ſpots, which fly to the candles, called *Mothes in Engliſh*, which eat linnen and woollen clothes, and lay eggs, of which come *Moths*, and of the *Moths* again theſe *Phalens*; they are ſaid to come firſt of all from roſe leaves and other herbs putrefying.

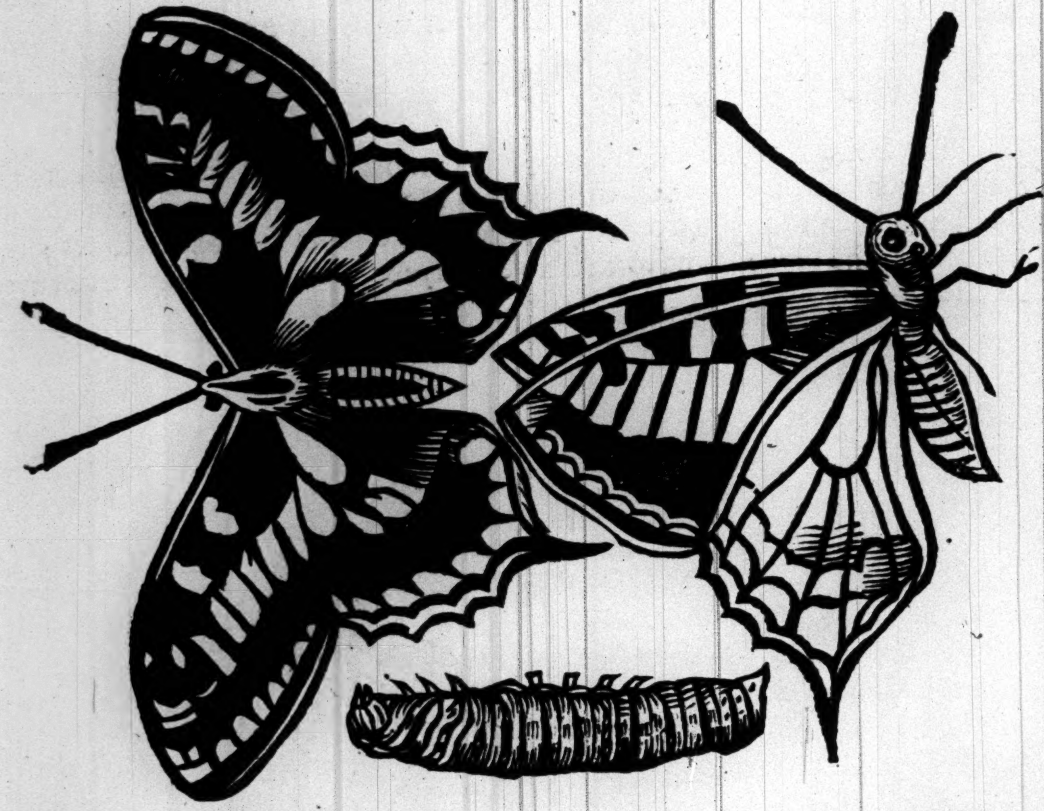


Three others I have obſerved in paſtures and medowes. The firſt whereof hath the outer wings black, each of them marked with 5 red ſpots like bloud, the innermoſt wings are all over red, the body dun, the head, ſhort cornicles, and the feet blackiſh. The ſecond is all alike, only that it hath but four red ſpots in the outmoſt wings, and hath a more ſlender body. The third is almoſt of the like ſhape too, but the cornicles are a great deal longer, and the red ſpots ſcattered after another manner; for there appear about the edges of the wings only two red bloud-like ſpots; but from the riſing of the wings two ſpots drawn at length. And thus much may ſuffice to be ſpoken of the night Butterflies, or *Phalens*; paſſe we on now to the day Butterflies.

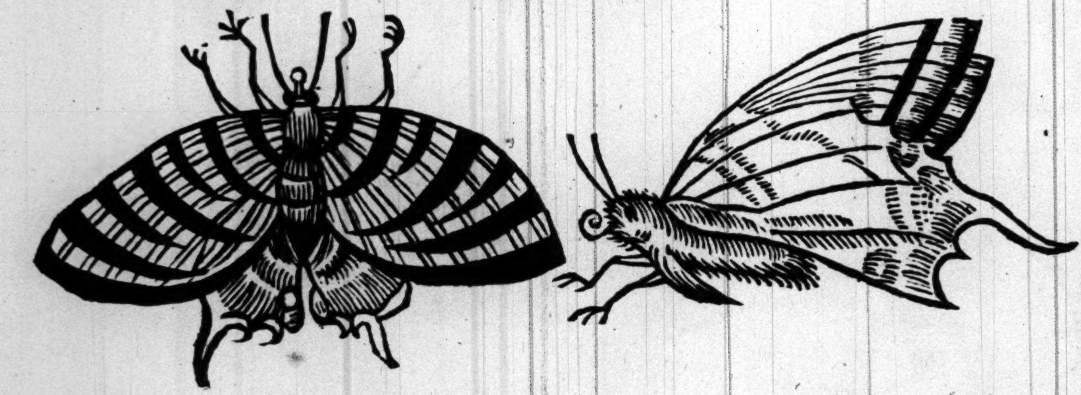
The Day Butterflies are to be deſcribed after ſuch a ſort, that all men may ſee the fruitfulneſſe and elegancy of Nature in this behalf and admire. For ſhe hath not leſſe played her part, or wrought hard rather in the variety of theſe, their colours, attire, rich apparel, roundles, knots, ſtuds, borders, ſquares, fringes, decking, painting, making them, then ſhe had done in the *Phalens*.

1. The firſt Day-Butterfly being the greateſt of all, for the moſt part all yellowiſh, thoſe places and parts excepted which are here blacked with inke. Moreover, the roundles of the inner wings are ſky-colour, inſomuch that you would think they were ſet with Saphire ſtones; the eyes are like the Chryſolite: the bigneſſe and form is ſo exactly ſet forth in the figure, that there needs no more to be ſaid of it.

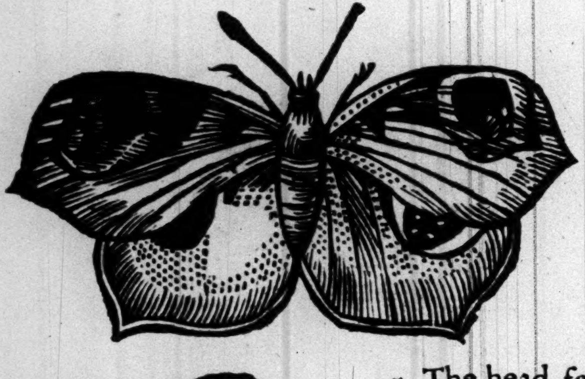




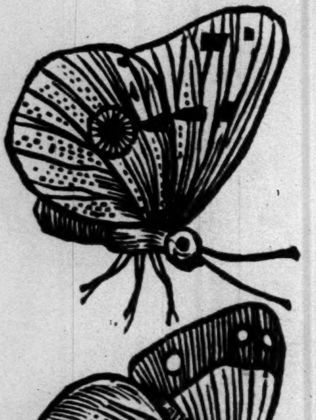
2. The ſecond differs very little from the firſt but in bigneſſe; it hath nevertheleſſe, very black eyes & longer cornicles, where you ſee the color white, there ſuppoſe it yellow, except it be thoſe great eyes at the end of the innermoſt wings, the apple whereof muſt be made flame-colour, but the ſemicircle bloud-red.



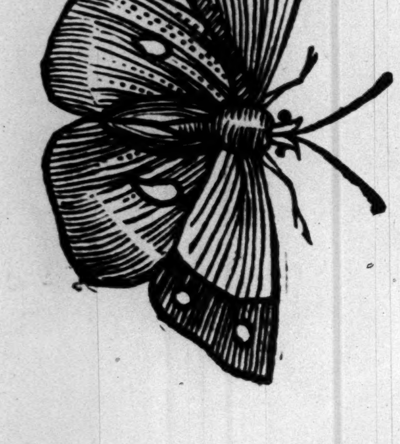
3. The third not much unlike in colour, but that the extuberances, and the outmoſt border of the innermoſt wings is sky or woad-colour; as alſo thoſe three taches which you ſee painted under the hollow part of them.



4. The fourth may be ſaid to be the Queen or chief of all, for in the uttermoſt part of the wings, as it were four Adamants gliſtering in a beazil of Hyacinth, do ſhew wonderful rich, yea almoſt dazle the Hyacinth and Adamant themſelves; for they ſhine curiouſly like ſtars, and do caſt about them ſparks of the colour of the Rain-bow; by theſe marks it is ſo known, that it would be needleſs to deſcribe the reſt of the body though painted with variety of colours.

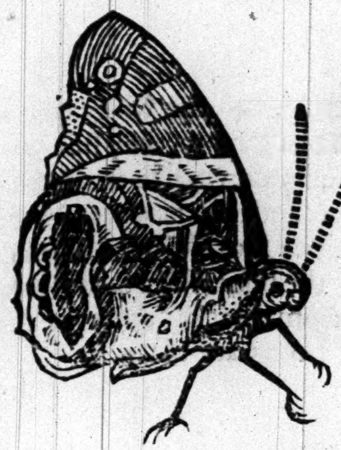


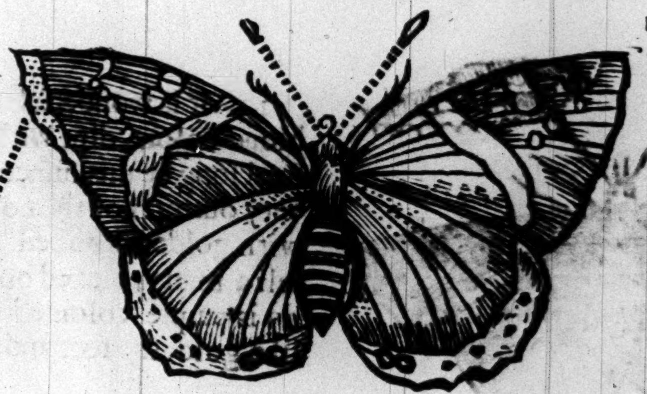
5. The head, feet, cornicles are of bloud-red, but the eyes purple, the back black and blue, the belly yellowiſh, the wings at the baſis of a bright yellow, and afterwards more ſad; the utmoſt parts of them being ruſty colour, and waxing blackiſh with an unpleaſing duskineſs, are beautified with three little yellow ſpots; to the innermoſt being ſprinkled with ruſty colour, firſt two yellow, afterwards three pale yellow ſpots do ſtick. If you conſider them with the face upwards, the upper wings are of a greeniſh yellow, marked with ſix or eight ſpots, the innermoſt of a light graſſe-green, ſtained with two white ſpots; the belly and face yellowiſh; it comes out of a whitiſh *Aurelia*, ſpotted with little dark coloured ſpots.



6. The upper wings without are blackiſh, with a certain gard of a decayed red running through the midſt; the extremities of them gliſter with white ſpots and ſpecks like drops, being ſharpned with dark coloured notches round about; but in the inſide that guard doth ſhew of a more clear and full colour, and toward the bottome they ſeem blue; the undermoſt wings appear of one colour without, of another within, without they are all over ſad coloured, except a reddiſh border, with a prickly purle very ſmall and blackiſh, marked with four little points, and two diverſe coloured opals placed together; within

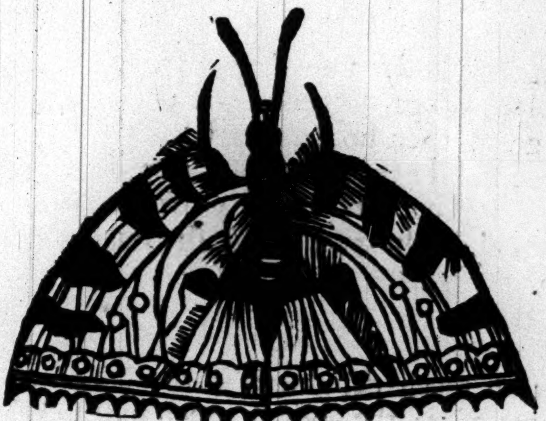
they



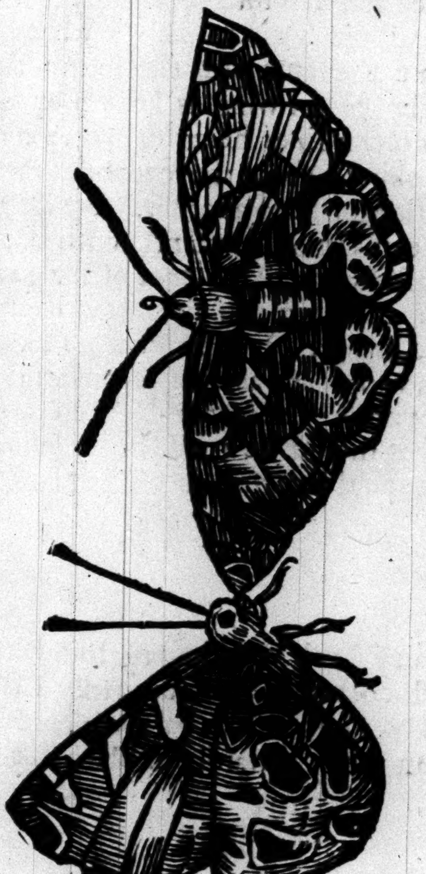


they ſhew nothing like to this, but from a black and purle embroidery, they end in a ſad fading red, the body is black, the eyes, horns, feet, all dusky and of the ſame colour.

7. The whole body is black, yet in every inciſion of the back, it hath two white ſpots; & wings between yellow and red, adorned with black and very white ſpecks: but the bountifull Mother of all things, Dame Nature, hath chiefly beautified the borders of the wings, which have little teeth ſet like to ſaws at an equal diſtance one from the other, in the border whereof 20 blue ſtuds pierced through with black lines, make a glorious ſhew.

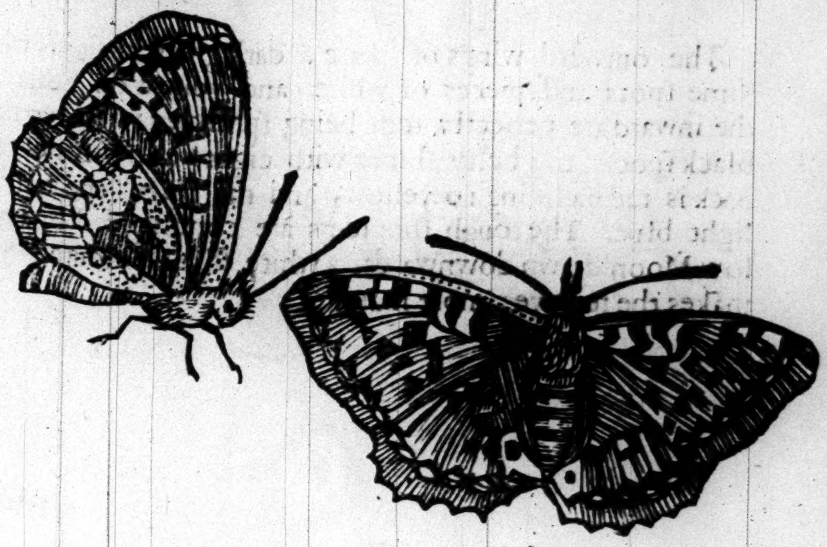


8. Nature bred this with a chamblet mingled coloured coat, but it wants lively colours, for the wings are of a black reddiſh fading yellow and ruſſet colours, and it is more beautiful for its ſoft skin, than for its gallant apparel.



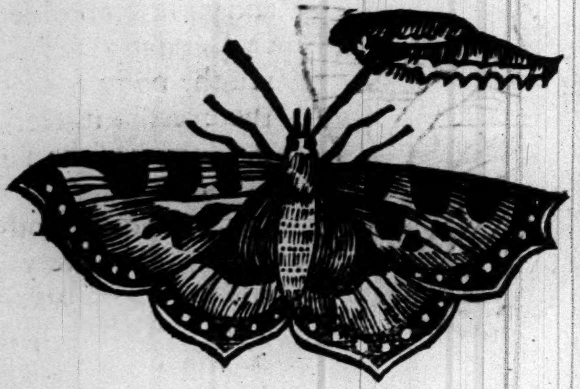
9. This is for the moſt part of an aſh-colour, but if you look on the inſide of the inmoſt wings, there is nothing that can better repreſent the wings of a Turky-cock; for the feathers that he flies withall, are covered by other feathers with ſcales; the eyes are black, as the horns are alſo, which are ſwoln like water-cats-tails.

10. The body is black, the ſhoulders are covered with yellow down, as is alſo the whole head; the horns are yellow alſo toward the head, which appears the ſadder by a ſpot of a dark red; many round pearls ſet at juſt diſtances, do make the outward'ſt rounded skirt of all the wings to be more graceful: but withinſide they are ſpoiled with very black [illegible] like lintels. But as the part is leſs comely outwardly, ſo the inward part of the inmoſt wings, ſhining with a whitiſh green, [illegible] ſpots upon it, ſhines gallantly: and thoſe ſpots that [illegible] outwardly round pearls, ſeem inwardly pure refined ſilver.

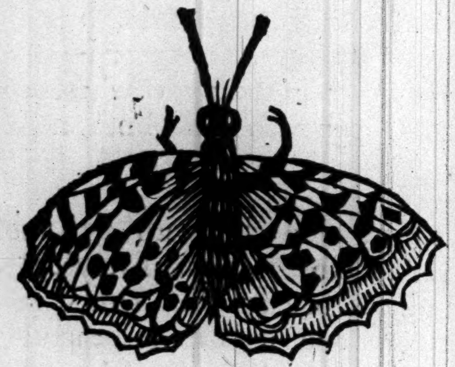


11. It holds forth a [illegible] liſt of oriental Pearls ſhining in blue, the upper wings being of a flaming yellow, ſhew like fire painted with ſix moſt black guards, the root of the inmoſt is black, then they ſhine from yellow to a fiery colour; the body is downy with darkiſh hairs, and the horns and feet are of the ſame colour.

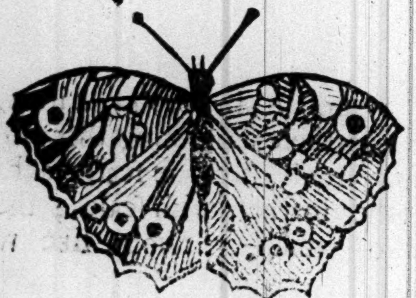
12, It



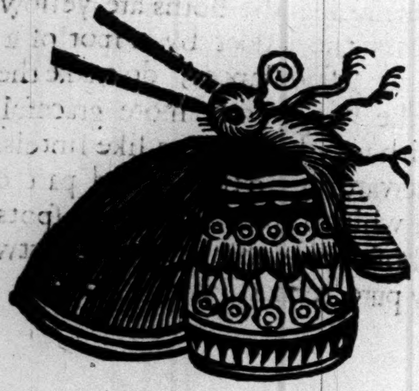
12. It is wonderful beautiful, the wings are light bloud-colour, dipt with black ſpots, they ſhine with ſmal long beams diſperſedly drawn like threds to the very outmoſt of the coat, and this is adorned within with golden crooked lines like the Moon, being it ſelf a murry, nicked on the ſides like a Saw: the body is purple coloured from black, the eyes ſhine like gold, the feet and horns are black.



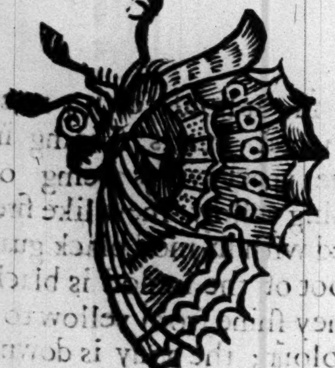
13. The body and wings appear black, upon the black wings, jagged in the circumference, firſt hairs grow, then borders, and laſtly golden ſtuds: alſo the ſmall eyes in the black head are tinctured with gold, but the horns grow forth with ſpots white and black, and end with a ſmall very black knob.



14. It much delighteth in the curioſity of the decking of it; the body is rough and blackiſh from white, a black eye, and a white pupilla, about the bald eye you ſhall ſee a circle almoſt white as ſnow, the horns are the ſame with the former, the outward face of the greater wing is known by the flaming colour, golden lines being drawn upon it, with four dinted skirts; about the end of it three round pence ſet triangular, do adorn it. But the inward face of it ſeems moſt pleaſant, with divers golden ſcales and ſtuds put like a coat of male, and tyles of a houſe: alſo a golden line beautifies the utmoſt part of the wings. It repreſents a Peacock very much by its wings, and as that is, ſo hath it a proud and gallant body; the feet and legs are ſomewhat black, (leſt it ſhould be proud of its feature) the ſnout is like a ſpiral line made up like a Maze.

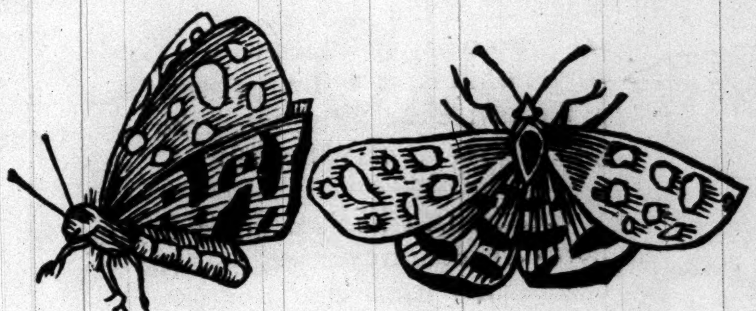


15. This hath alſo a hairy beak wreathed up like a vine tendrel; it is inwardly aſh-coloured, and outwardly a faint gray, the wings are prickly, jagged like bats wings, ſome dun lines do outwardly part theſe, inwardly ſix black ſtuds do much ſet them forth.

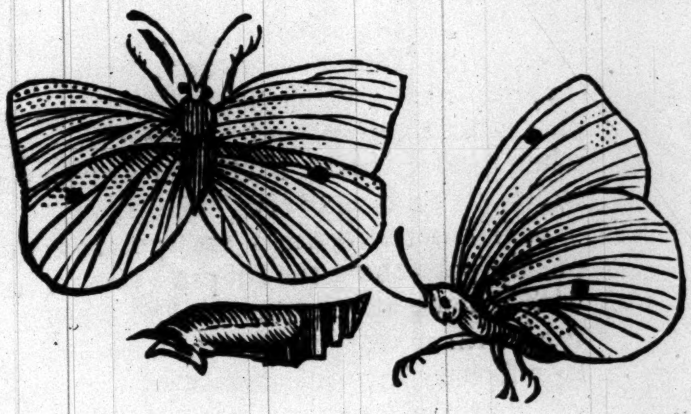


The outward wings of all are a dark green in ſight, which ſome ſpots and pieces of white and yellow do beautifie; the inward are perfectly red, being ſprinkled with ten moſt black ſpots: the belly ſhines with eight yellow ſcales; the back is red inclining to yellow, and the tip of the tail is a light blue. The rough ſhoulders are commended by a yellow Moon drawn downwards, a white ſilver coloured apple makes the red eyes more ſharp.

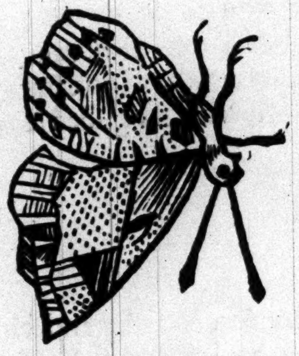
The middle ſort of Day-Butterflies.



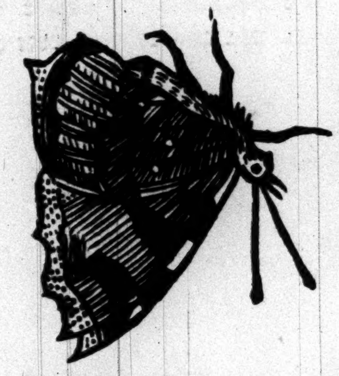
1. The eyes ſeem yellowiſh, the horns a decayed ruſſet, the wings and all the reſt of the body are a pale yellow; the inward wings are marked outwardly with one only full yellow ſpot, but inwardly they are tinctured with a certain black ſpot upon a watry green; the back is blackiſh from a blew, the belly is yellowiſh, it proceeds from an *Aurelia* coloured with gold.



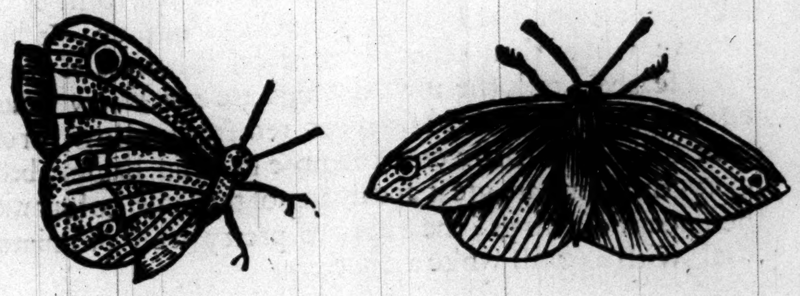
2. The ſecond is not ſo pleaſing a colour, the inward wings from a fading blew, decline to a Crane colour, and end as it were into a lead-colour, the outward wings are blacker, noted here and there with dark ſpots, and the body ſeems to be the ſame, it flies rudely with dented wings, and retched in the borders, and as it were prickly, and like a mourner of that kinde, it never comes forth but in mourning apparell.



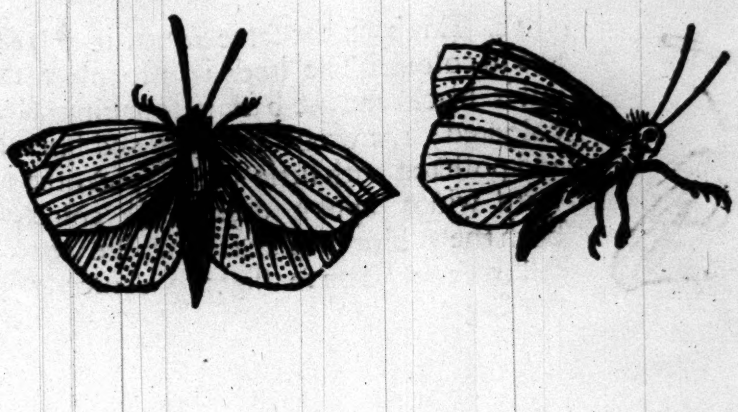
3. We have painted out this, as it were ſtiffe and raiſing it ſelf with the wings lifted up, it hath alſo prickly dents, but the outward wing from a pale yellow is marked with the black pieces; but the next part of the inward wing from the root is dark black, the middle part is pale, the laſt part is whitiſh, chequered with right and thwart fibres; the body appears dusky, the eye is black as pitch, the horns are black.



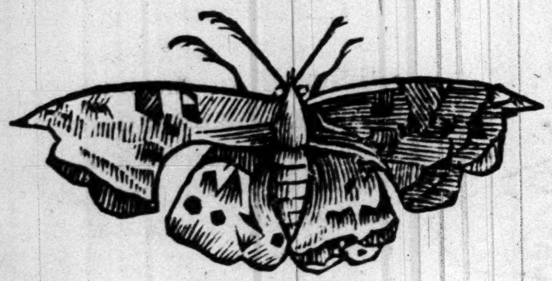
4. This is diſtinguiſhed two waies; for when ſhe opens either wing to ballance her body, the body ſhewes black, and four dark wings faſtned to it ridged as it were with a black pencil, and ending in a ſhining ruſty colour; but when it ſits on flowers and liſts up the wings, the firſt wing is yellowiſh, adorned with a comely round ſpot like a target, the colour whereof is pale, the boſs of it black, the outward circle citron coloured; the belly, and breaſt, and the whole face are white; the black horns incline toward a yellow.



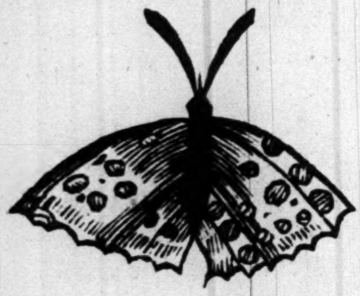
5. It ſeems inſide and outſide all alike; the head and wings look pale; the body is wan, as alſo the horns; the eyes are flaming red, the ſhoulders are hairy with a pale down.



When it ſtretcheth its wings towards you, it appears a ſhining ſandy colour, like herb dragon, with black ſpots: the body alſo if you ſee the back, ſeems a watry black, the belly ſomewhat more dark; they eye is black, clear with a white or whitiſh apple; the horns are black as a crow, the wings from you are of an unpleaſant brown, and of a decayed Weeſil-colour.

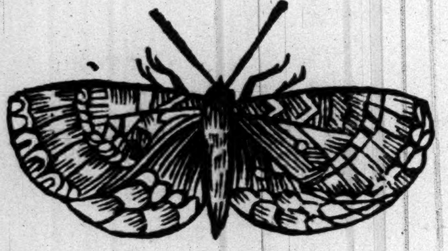


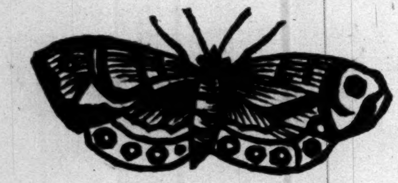
7. The jagged wings repreſent a fire-ſtone, ſhining with braſſe coloured little veins, and the skirt alſo being ſprinkled with black ſpots; the whole body is of a ſhining black but that white points divide the horns, and in the black forehead golden eyes twinkle after a ſort.



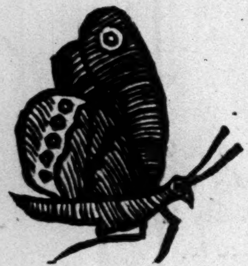
8. This hath the ſame kinde of body, but the horns are reddiſh from yellow, the wings appear changeable, marked with divers pleats, ridges, borders, skirts, of many colours : all theſe colours are ſad and dull to the eye, they want all clearneſſe and varniſh, and are pleaſant only in their mixture, placing, and number; in ſome places they repreſent a ſmoky flame, elſewhere an unpleaſing dark colour, and a fading red; and the rubies included in the laſt border in white ſemicircles are nothing lively.

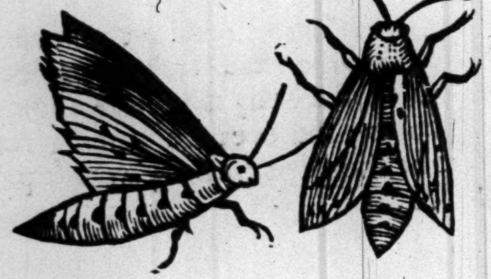
9. The outward wings are ſpotted with dirty muddy ſpots, about the laſt part they are adorned with a black target, the middle whereof is ſet forth with an ivory point : the inward wings have four ſuch targets, but augmented with a yellow circle beſides; the two middlemoſt are of a fit magnitude, the two outmoſt are very ſmall; the body of this creature is a whitiſh dark, the eyes that ſtick out are black : but if you look upon the inward part of the inmoſt wing, they look ſmoky, and they are very beautifull, with ſix gilded leaves curiouſly diſpoſed.



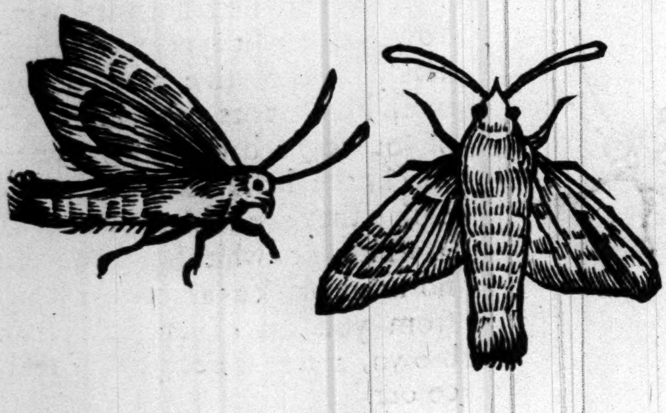


10. The head is a pure white, but ſome dusky and black ſpots adorn the milky wings, the back and ſides are red from yellow, 9 or 10 black ſpots put under the cuts do adorn them.



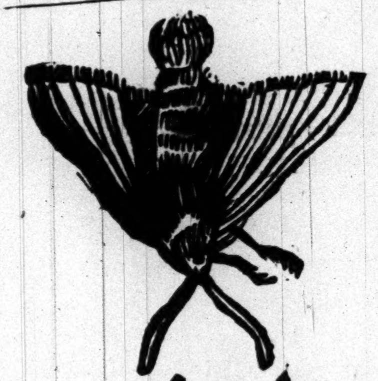


11. In proportion, and almoſt in colour and form of the body it repreſents the Eagle amongſt birds of prey. It hath narrower wings than other Butterflies, it hath as it were a broad feathery tail, the inward wings are not watry coloured, like the reſt of the body, but red from yellow, or of a flame colour; it hath a crooked noſe like the Eagle, a belly hoary, the horns are great and ſtrong, of the ſame colour with the uppermoſt wings; the eyes are pretty well prominent, black, with a pupill white as ſnow.



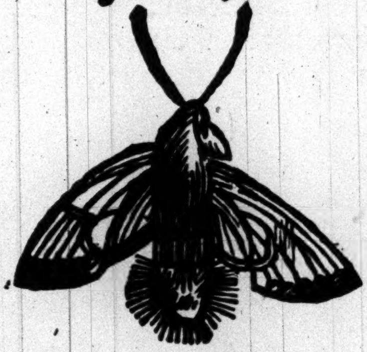
12. This hath the ſame form, it only differs in colour. The body is aſh-colour, the tail is black, and the back is ſomething ſilver coloured; the wings are long and blackiſh, and polluted with little black ſpots, the inward wings appear dusky dark coloured; both theſe kindes of Butterflies are wonderfull ſwift, and dare for flight to contend with the Eagle.

13. This



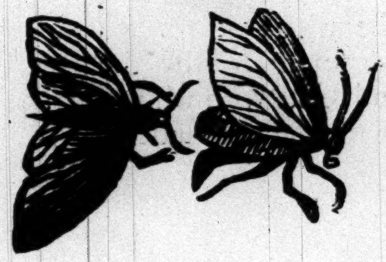
13. This is the ſwifteſt of all, and hath ſhoulders ſeeming of a yellow moſs colour; the wings are white as milk, in the extremities of them they are marked with five or ſix dusky feathers, the middle of the yellowiſh back is adorned with a cole black ſpot, of both ſides two downy extuberances are thruſt forth, the rump is compaſſed about with a certain black down, it will fly as faſt as any Swallow, and indeed is ſwifter than any Bird.

We have ſeen but eight of the ſmaller kinde.

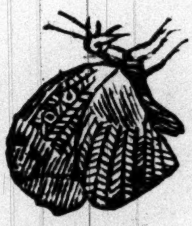


The ſmaller Day-Butterflies.

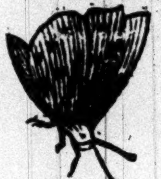
1. The firſt parts of the inner wings are of a full bright ſhining ſcarlet colour, and delicate red, but the outward wings repreſent a light purple, mingled of black and red, and drawn over with ſome ſnow white ſpots, the reſt of the body is black, even the branched horns alſo.

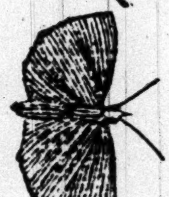


2. This is ſilver colour at the roots of the wings, which afterwards are purple coloured from blue; the uppermoſt wings are graced inwardly with two black white ſtuds; the body is full of dusky ſpots; it hath ſix purple feet, three put forth on each ſide; it hath a crooked bill; out of the head four ſmall horns break forth, beſides the two long ones.

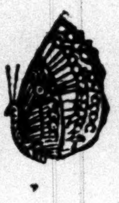


3. If you ſhould ſee this fly, you would ſay that the wings are of a decayed purple colour paſſing to a lively blue, and all plighted ſeverally, but inwardly there are round eyes, they ſeem more gray and cankered; the head is blue from green, the body is deckt with dusky and white laces; the eyes ſeem very black, and the apples of them very white.

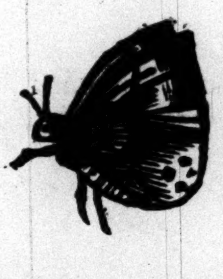


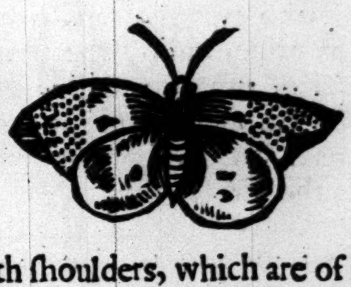


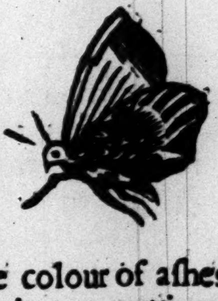
4. It comes in a pleaſant habit, with wings ſet with eyes, that are of a moſt heavenly incomparable blew. The moſt perfect artificer Nature it ſelf made it all eyes; that you would ſay directly, that *Argus* eyes were not ſet into the Peacocks tail, but into the wings of this Butterfly, which ſhe doth ſtretch out againſt the Sun with no leſſe pride than the Peacock doth, and (by the heavenly colour which ſhe excels in) ſhe is almoſt able to ſhame the Peacock.



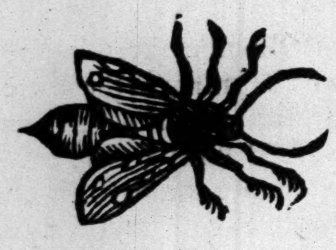
5. The body is of a Crane colour, the upper wings are green in a white ſtalk; in the middle they are yellow and aſh-colour, the inferior wings are at the root of a dark green, otherwiſe whole, but inwardly they are ſprinkled often with ſpots of an unpleaſant green; the eyes are black, as are the heads of their horns.



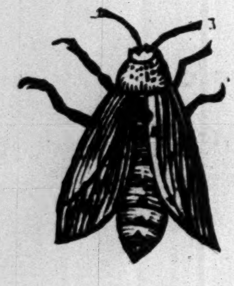




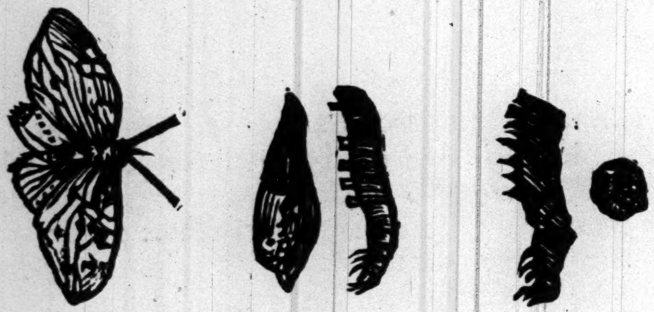
6. It hath round buncht ſmooth ſhoulders, which are of the colour of aſhes mingled with ink, the body is full of cuts, and is of an aſh kinde of colour; it hath narrow wings, and the utmoſt are of a Crane colour ſhining with ſome exceeding bloud red drops, the little head, the feet, the horns are like the body in colour.



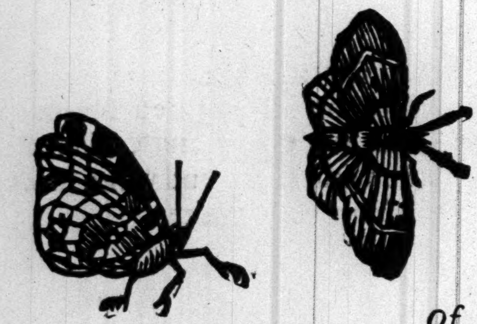
7. You would ſay, that this is kin to that is bred of *Ginny* pepper, and ſetting aſide that it is leſſe and more black in body, and the ſilver colour of his upper wings, it hardly differs from that.



8. All the wings are faint clay colour, or rather ſhining with a pale yellow, with ſome brown ſpots, and others that repreſent old cankered colours, the little eyes are black as a raven, otherwiſe it is all yellow.



9. All the wings are painted with white and gray like ſea ſhell-fiſh, the borders are rounded, and deckt with white lines running through the middle with indentures.



10. This hath wings like Perwinkle ſhels, ſet with ſtuds, it is mingled colour of a white and obſcure red, and doth ſet forth to us the unſpeakable power of God in the diverſity of its colours.

Of the uſe of Butterflies.

He that beholds the forms, clothing, elegancy, and rich habits of the Butterflies, how can he chooſe but admire the bountiful God, who is the Author and giver of ſo rich treaſure? wherefore art thou proud in decking thy ſelf, and takeſt ſo much delight in thy own beauty? poſſeſs thy temporary fading goods without envie, for know that there is no Butterfly but is as beautiful and pleaſing, and for the length of their life they have a more conſtant comelineſs than thou haſt: thou haſt it may be an incredible agility of body, and numbleneſs in running, but yet O man if thou ſhouldeſt exceed all men, thou canſt not equall a Butterfly. But you will reply that your cloathing is incomparable, and that you can boaſt of the *Perſian* and *Tyrian* ſilk, of the beſt purple dyes, brought unto you by ſhipping: truly ſhould you but ſee the rich robes of any Butterfly, beſides their purple dyes, and the rowes of pearls, and the borders ſet with diamonds, rubies, the pyropus, opals, emrods; if you did but ſee and conſider ſeriouſly the elaborate compoſition of their ſutures and joynts and the imbroidered work here and there, of fine divers coloured twine ſilk ſet with ſtuds and eyes of gold and ſilver, thou wouldſt let fall thy painted tail like the Peacock, and caſting thy eyes down to the ground from whence thou wert made, thou wouldſt learn to be more wiſe. It may be thou wert born at firſt in a houſe of clay and mud walls, or elſe in a palace built of poliſhed ſtones; but ſome Butterflies are born in their houſes that are the *Aurelia* like to pure gold, and exceed *Attalus* for the excellency of their birth, and delicacy of their apparel. Learn therefore O mortal Man, who ever thou art, that God that is beſt and greateſt of all, made the butterfly to pull down thy pride, and by the ſhortneſs of their life (which is of no great continuance) be thou mindful of thy own failing condition. Wert thou as ſtrong as *Milo* or *Hercules*, and wert fenced or guarded about with an hoſt of Giants for force and valour; remember that ſuch an Army was put to the worſt by an army of Butterflies flying in Troops in the air, in the year 1104. and they hid the light of the Sun like a cloud. *Licoſthenes* relates, that on the third day of *Auguſt*, 1543. that no herb was left by reaſon of their multitudes, and they had devoured all the ſweet dew and natural moiſture, and they had burn'd up the very graſſe that was conſumed with their dry dung. Alſo in the year 1553. as *Sleidanus* reports, a little before the death of *Mauritius* the Duke of *Saxony*, an infinite Army of Butterflies flew through great part of *Germany*, and did infect the graſſe, herbs, trees, houſes and garments of men with bloudy drops, as though it had rained bloud. But it may be thou art in love with ſome female beauty, and deſireſt to pleaſe her; O fool, remember the fate of the *Phalena* Butterfly, which being invited by the light of the candle, as by a fair beauty, is conſumed by the flame it fell in love withall: and rejoycing like the *Pyrauſta* bred in the fire, removing but a little from it is preſently dead. And thou great Aſtrologer, who makeſt *Aries* to be the forerunner of the Spring, rather adore the Butterfly that is a certain meſſenger of the Spring, and a more ſure prophet than your horned Ram. Would you allure fiſh to your hook, and catch them? hear what gallant baits are made, as we finde it in the *Tarentine Geopon.* Take 1 ounce of the venomous dung of Butterflies, Anniſeed, Goats-milk cheeſe, Hogs bloud, Galbanum, of each half an ounce, Opopanax 2 drams, beat them all diligently, and powring on good ſharp Wine, make Troches, dry them in the Sun and keep them for your uſe. Caſtrels, and almoſt all birds of prey are freed from conſumptions by feeding on Butterflies, and grow very fat thereby. *Nicolaus* in a compoſition of ſome powder, makes mention of burnt Butterflies; by which words *Turnebus* underſtands Butterflies that fly to the candles: they cauſe urine exceedingly, as almoſt all Inſects do, but with leſs danger: moreover, ſince they feed on dew alone, as do ſnails, and abhor to meddle with ſharp corroding or ſtinking things, or ſuch as have any venomous or malignant quality in them; truly the Colledge of Phyſicians are too wayward that dare preſcribe a Spaniſh fly inwardly, yet never made an eſſay to know what force there is in Butterflies. *Plinius* ſaith wiſely; *That our greateſt knowledge is very ſmall compared to that we are ignorant of*: for ſome ſmall creatures upon the earth are deſpiſed, whoſe force, if we did know it, we ſhould praiſe to the skies. You therefore ſons of *Æſculapius*, ſearch out the vertues of Butterflies to be uſed inwardly and outwardly, for the health of the body; for had Butterflies been uſeleſs, ſurely God would never have ſet them forth, beſtowing ſo great liberality upon them. But ſince they are not only for a remedy for us, but may do us much hurt, being inwardly taken in too great a quantity, as being poyſon; I ſhall ſhew how that may be prevented, and driven off, if *Ardoynus* deceive me not. *Phalena* or night Butterflies, ſuch as fly at candles at night, it may be were accounted of ancient time amongſt dangerous medicaments, for the ſame reaſon that Toads, Bats, Owls, Howlets and Gnats were; for they held that all living creatures that labour in the day were ſafe to be uſed; but night-workers moſt unhappy and accurſed. *Pliny* commends a Goats liver to drive them away, yet he ſhews not the means to uſe it. But if night Mothes go into a Bee-hive and trouble Bees in the night, bury dung mingled with the marrow of an Oxe, and by the ſmell thereof theſe unquiet diſturbers will preſently fall down. *Columella. Palladius*, in *April*, (for then they commonly do moſt hurt) places a braſs veſſel between the hives, that is high and narrow, and puts a lighted candle in the bottom of it, and they will come in there for love of the light, and there they are half burnt, or choaked by the ſmoak in the narrow veſſel. Bitter vetches are held amongſt edible herbs, to prevail moſt againſt Butterflies; others drive them away with ſmoak of Gith and Hemlock, as *Rhaſis*: others hang a horſe tail pulled off, upon the door, and they wittily believe that Moths are kept away thereby. Thus much I had to ſay of the divers uſe of Butterflies; who though ſome deſpiſe them, yet are they of great uſe and admirable.

CHAP. XV.

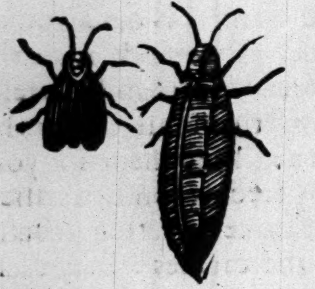
Of the Glow-worm.

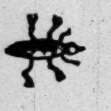
THe Greeks have many names for this Inſect, for from the ſhining of the ſhanks and tail, it is called λαμπυρὶς, πυγολαμπὶς, κυσολαμπὶς. *Suidas* calleth it πυγολαμπὶς; *Ariſtotle* βόστρυχος; *Heſychius*, πυγολαμπὶς: it is alſo by way of metaphor perhaps called from the Latine word *Scintilla*, a ſpark, λαμπυρίδιον, & σπινθὴρ. The ſame Author calleth the male of it κάθαεις, becauſe it is κυλινδήλεγος; but the female cannot be ſo called: ſome improperly call it φάλαινα, for it is one thing to covet the light, another to carry light with it. Thoſe which *Ariſtophanes* calls μύκητας, ſome interpret *Cicindelas* or *Glow-worms*, but upon what ground let them judge.

The Latines call it *Cicindela*, *Nocticula*, *Nitedula*, *Lucio*, *Lucula*, *Luciola*, *Flamis*, *Venus*, *Lucernuta*, *Incendula*, as appears out of *Cicero*, *Pliny*, *Scoppa*, *Agricola*, *Varro*, *Feſtus*, *Plautus*, *Scaliger*, *Turnebus*, *Albertus*, and *Silvaticus*. In Arabick they are called *Allachatichi*, that is to ſay, birds flying by night: in French *Ver luiſant*, *Mouch claire*; of the Germans ſome call it *Zinduerele*, others *Liegth mugk*, i.e. a ſhining fly, and *Zindwurmle*, ſpeaking of the male. For in ſome places of *Germany* the male Glow-worm, that is that which flies, doth not ſhine at all, but only the female called *Graſs-wurm*, *Gugle*, and *Feurcaeſer*. About *Francofurt* on the *Main*, from the time in which they do moſt frequently appear they are called St. *Johanais Kaeſer*, and St. *Johannis Fliegen.* In Brabant *Ein light oft nacht mugge.* In Italian *Lucicla*, *Lucio*, *Farſalla*, although they grant this to be the name of other ſorts of flies that come about the candles. In Vincentia, *Biſſola fuogola*, i.e. a fiery worm: in Cremona, *Lucervola*; Lombardy, *Luiſerola*; in Spain, *Luriergana* and *Luciernega*; Polonia, *Zknctnike*, *Chazazezik*, *Wnory*, *Szwiecacy*; in Hungary, *Eyel twndueklo*, *bodoratska* *vilantſo.* In Engliſh, *Glow-worm, Shine-worm, Glaſs-worm, i. e.* a gliſtening or ſhining worm. For here, as alſo in *Gaſconia*, the male or flying Glow-worm ſhines not, but the females which are meer worms. On the other ſide in *Italy*, and in the County of *Heidelberg*, the females ſhine not at all, and the males do. I leave the reaſon to be diſcuſſed by Philoſophers.

Their deſcription.

Now the male Glow-worms have wings, the female are without, and that is in *Europe* it ſelf. The male Glow-worm of *Europe*, is a little creature flying, having four wings, the outermoſt whereof are like leather, the innermoſt membranous, of a ſilver colour, tranſparent. The body is long, a little ſquat and flat, having five inciſures or clifts; whereby it may be extended or contracted as occaſion ſerves; the body at length ſeems to be longer than the wings, when contracted, ſhorter; the head broad, dunniſh, flat like a hood; out of the forehead come two cornicles as out of one centre, near which the forepart of the head doth a little extuberate: not far off from the roots of the cornicles on each ſide riſe little round ſwellings, ſhining like jet, which are in ſtead of eyes, the head joined to a very ſhort neck and body, of a blackiſh dun colour, it hath ſix feet in the breaſt near unto the head, the hinder of which together with the ſhanks are of a yellowiſh colour, the reſt of the feet blackiſh, it is ſlow, and creeps as it were with a grave pace; the breaſt buncheth forth a little, the body between the inciſures or clifts whitiſh, at the tail it hath two ſpots, on each ſide one like a Moon, in clearing out of which cometh that ſhining brightneſs in the night, like burning brimſtone, as if it did ſparkle in the air: this never is ſeen in *England*, or if it do live here, it ſhines not at all.





The female *Glow-worm* is a ſlow paced creature without wings, the breadth of two fingers in length (although in *Gaſconia Joſeph Scaliger* ſaw far greater and longer, thoſe which they call *Luctarbæ*) of the bigneſs of the mean *Canker-worm*, to which it is not much unlike: the head ſmall, flat, hard, black, long, and ſharp toward the mouth; out of the end of which come forth two ſhort black cornicles; it hath ſix feet, ſmall, black, with three joynts, near the head like the *Canker-worm*; the body long, ſomewhat thick, and flat like a fillet, having twelve deep inciſures, beſides the neck which it puts out or in as it pleaſeth, the parts between are like black plates heaved up when they go. All along the back there goes a very ſmall whitiſh ſtroke from the head to the tail: the ſides of the belly are of a bright murry colour, the belly and tail toward the end whitiſh, but the rump it ſelf is black, by the benefit of which ſhe lifts up her ſelf and creeps, and by certain little forks that come out of the ſame, ſhe hangs upon any thing; under this part ſhe voideth from her belly a clammy and flaky excrement like honey, which being brought back to her mouth, ſhe takes in again, and then going backwards ſhe ſeems to draw out clammy threeds, the which ſhe devours the ſecond time, and ſo by receiving in and caſting forth ſhe ſuſtains her ſelf. Thoſe parts that are white do glitter in the dark with a wonderful ſplendor, repreſenting terreſtrial ſtars: inſomuch that they may ſeem to contend with candle or moon light. This is worthy obſervation, that that ſo bright luſtre expires with the life; where then is that perpetual light which ſome fooliſh naturaliſts ſo fooliſhly and impudently prate of? ſome of them I have ſeen ſometimes with wings, and ſometimes in the fields, flying up and down in the ſtreets and wals of the Cities.

At *Vincentia* in *Italy*, they ſay there are thoſe ſomewhat bigger than ours; all over black; elſe they differ not at all.

They feed upon herbs, they continue long in copulation, as *Julius Scaliger* (a great Philoſopher of our times, not behinde any of the Ancients) hath diligently obſerved; whoſe words are theſe: *Cicindelam volantem in coitu deprehendi, &c. I lighted upon* (ſaith he) *the Cicindele or Glow-worm flying with her male in the act of copulation; the male being touched did not refrain, they were put into a box with holes in it all night, the next day the male ſtuck cloſe; at noon the male let go and died. After which time, about the evening many eggs were laid by the female, which within the ſpace of twenty hours went away alive.* This ſtory *William Brewer* an Engliſhman, a learned man and my good friend affirms for truth, being an eye-witneſs thereof, ſeeing them once in the act of generation. They are long in the act, and ſo bring forth many inſects, this the Philoſopher confirms ſpeaking of Inſects thus in his 1. Book *de gen. cap. ult.* συμπλέκεται μὲν πολὺν χρόνον, *Shee tarries long in copulation, but afterwards brings forth ſpeedily*: I could wiſh *Scaliger* had took notice what creatures came from thoſe eggs, for ſo the ſtory had been more perſpicuous. Though yet according to the courſe of nature it be eaſie to judge. For what could come out of them, but thoſe ſmall *Erucæ*, black, thick, and rough, of which *Ariſt. hiſt.* 5. 19. ſaith thoſe Glow-worms without wings are generated. Of theſe then come the unwinged Glow-worms, and of them with ſome alteration the flying Glow-worms called *Boſtruchoi*. From whence it is to be noted, that either *Ariſtotles* copy is faulty, or that the interpreters have committed two errors; they have altogether left out the word μελαίνων (which makes ſo much for the clearing of the ſtory). Secondly, out of thoſe being changed they ſay come thoſe (which *Gaza* tranſlated) *Cirros*, altogether againſt the minde of the Philoſopher, if the Greek copy be not corrupted. For ſo runs the Greek, Ἐκ δὲ μελαίνων τινῶν καὶ δασέων, *&c. Out of certain black rough ſmall worms cometh the Cicindele without wings; out of which in the ſecond place being altered into a Chryſalis* cometh the flying Glow-worm; and out of them in the third place thoſe which are called *Boſtruchoi*. But what

Inſects thoſe ſhould be which of the Greeks are ſo called βόστρυχοι, is not yet known, I beleeve there is not much difference between them and the former. *Epheſius* a Greek Author a Commentator on *Ariſtotle*, ſaith that the *Boſtruchoi* are generated of the Glow-worm, and are called by the countrey people *Circa* or *Plata*; as *Niphus* tranſlates *Ricini*, *i. e. Tykes*. Therefore in the judgement of *Epheſius*, that *Boſtruchoi* or *Ricini* take their original from the winged *Cicindele* with ſome alteration. But of the *Ricini* or *Tykes* in their place. *Cælius l. 9. Antiq. lect. c. 4. Cirrhum inquit dicerem, &c. I had rather call the Cirrhus ſuch a worm as that is, which according to* Dioſcorides, *is of colour between black and white*; but what that worm is, neither he nor any man elſe doth tell us.

I wonder at *Cardane*, who will have this *Cicindele* to come of the *Crabrones*, aſcribing their ſplendor to the poliſhing of the outward skin. *Ex Eruca in Crabrones, &c. From Erucæ they become Crabrones, or which is more likely, from Crabrones they become Erucæ. Foraſmuch as the Caterpillars called Erucæ are bigger than the Crabrones or Beetles, and do ſhine more dimly, as it were ſpent with age, and then is it probable that when ſhe ceaſeth to fly, ſhe layeth eggs.* Here *Cardane* confounds all. For of the *Crabrones* come the *Glow-worms*, not of them the *Crabrones*. Beſides it is not the ſmoothneſs of the skin that makes them ſhine, as he overhaſtily concludes, neither do the wings cauſe it, which of all the reſt of the parts are moſt ſleek: what *Cardan* means by his laſt words, I cannot tell. But of all the reſt *Baptiſta Porta* and *Heſychius* were groſly miſtaken, who aſcribe their original to the dew or tow.

They appear from the middle of *June* to the middle almoſt of *September*. Which *Pliny* expreſſeth in theſe words: *For before forrage is ripe, or after it is gone, they are to be ſeen*: and elſewhere, *when Glow-worms appear, it is a common ſign of the ripeneſſe of Barley, and of ſowing Millet and Pannick.* But this muſt be underſtood of the Countrey and place that *Pliny* then lived in. In all Countreys they have not the ſame time of Barly harveſt, nor of ſowing Pannick and Millet, though *Mantuan* ſang to the ſame tune:

Then is the time your barly for to mow,
When Glow-worms with bright wings themſelves do ſhow.

Yet as I ſaid before, the ſhining comes not from their wings. They ſhine not before the twilight in the evening, as *Politian* ſhewes elegantly:

Then they renew their labour, till at night,
The little Glow-worms ſhine moſt clear and bright.

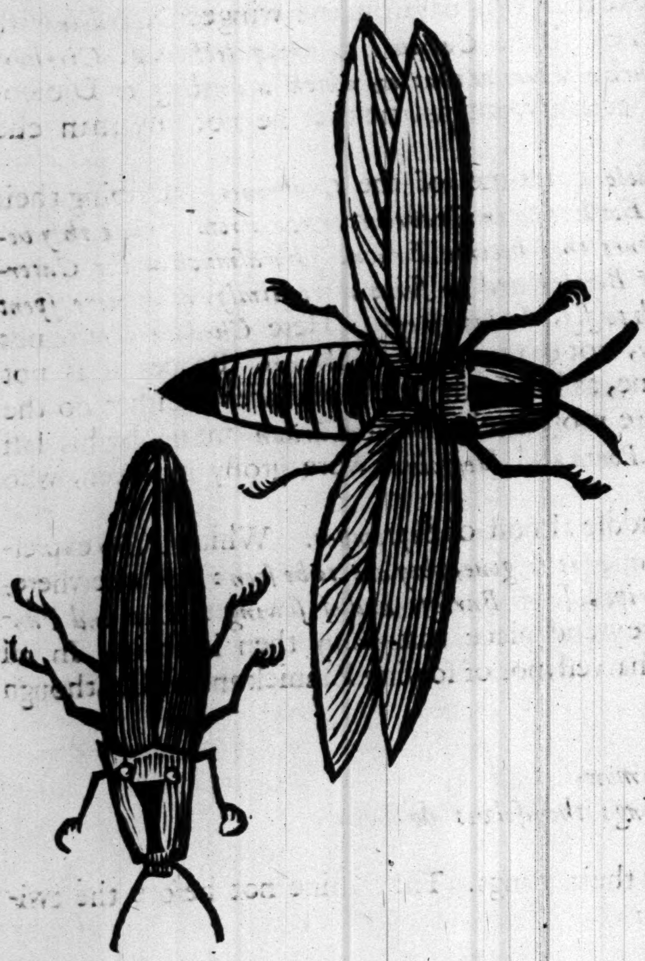
Pliny cals theſe glittering Flies, earthly ſtars; *Nature*, ſaith he, *crying out and ſpeaking to countrey people in theſe words: Clown, wherefore doſt thou behold the heavens? why doſt thou ſeek after the ſtars? when thou art now weary with ſhort ſleep, the nights are troubleſome to thee. See I ſcatter little ſtars in the graſs, and I ſhew them in the evening when thy labour is ended, and thou art miraculouſly allured to look upon them when thou paſſeſt by; Doſt thou not ſee how that a light like fire is covered when ſhe cloſeth her wings, and ſhe carrieth both night and day with her*: So far *Pliny*. Hence it is manifeſt that the ſhining doth not alwaies ſhew it ſelf when ſhe flies, though it ſhines forth both at her ſides and thighs, becauſe it appears not but to thoſe that ſee her wings wide open, and lifted up, for where the wings are cloſed all the light is darkned. This flying Glow-worm, *Antonius Thyleſius Bonſentinus* deſcribed elegantly in theſe verſes:

This little fly ſhines in the air alone,
Like ſparks of fire, which when it was unknown
To me a boy, I ſtood then in great fear,
Durſt not attempt to touch it, or come near.
May be this worm from ſhining in the night,
Borrow'd its name, ſhining like candle bright.
The cauſe is one, but divers are the names,
It ſhines or not, according as ſhe frames
Her ſelf to fly or ſtand; when ſhe doth fly,
You would believe 'twere ſparkles in the skies
At a great diſtance you ſhall ever finde
Prepar'd with light and lanthorn all this kinde.
Darkneſs cannot conceal her, round about
Her candle ſhines, no winds can blow it out.
Sometimes ſhe flies as though ſhe did deſire
Thoſe that paſs by to obſerve her fire;
Which being nearer, ſeem to be as great,
As ſparks that fly when Smiths hot iron beat.
When Pluto *raviſh'd* Proſerpine, *that Rape,*
For ſhe was waiting on her, chang'd her ſhape,
And ſince that time, ſhe flyeth in the night
Seeking her out with torch and candle light.

Thoſe that are without as well as they that have wings do ſend forth ſuch a bright light, that by it you may read a great print. In this alſo they ſurpaſs Moon and Stars, for that clouds and darkneſs ſoon eclipſe their light; where it is ſo far from obſcuring the luſtre of thoſe, that it rather increaſeth it.

Thus far of thoſe Glow-worms which are found in *Europe*.

Amongſt thoſe that are found out of *Europe*, that which the Inhabitants of the *leſſer Spain* call *Cocuias* take the firſt place, becauſe it yeelds a greater light, carrying a little torch before men in the dark. In Greek it may be called κεφαλλαμπίτης, becauſe the light comes not from the tail but the head. It ſeems to be a kinde of Beetle, ſix times as big as the flying Glow-worm is with us, not ſo great as a hazle nut, ſaith *Maiolus*, but ſometimes bigger than two hazle nuts, in length two inches, and as thick as a mans little finger. *Cardane* ſaith well, that ſome of them are as big as the Hart-beetle ; it hath a long head joyned to the body, the forepart whereof hath as it were in the middle a black ſpot in a manner triangular ; it ſhoots forth ſhort horns ; the eyes are very big (ſo are the horns) ſtanding out and black, and are placed near the mouth ; the reſt of the head is of a bright red, except it be two golden ſtuds or boſſes hard by the neck, out of which the glittering rayes, eſpecially when it flies and the wings are opened, do iſſue with marvellous glory ; ſix black feet come forth of the breaſt : the Caſe wherewith the ſilver wings are covered, appears of a cheſnut colour ; the body hath ten inciſures or clifts of a blackiſh aſhcolour. This Cicindele, together with the Figure of it came from a moſt ſkilful painter, who had taken ſtrict obſervation of it both in the *leſſer Spain* and in *Virginia*. In *Hiſpaniola* they are almoſt all the year long, for they have ſeldome any winter.



In the Commentaries of Navigation this Glow-worm is thus deſcribed : The *Cocuio* is four times as big as our flying Glow-worm ; it is of the kinde of Beetles : the eyes whereof ſhine like a candle, with whoſe brightneſs the air is ſo enlightned, that any man may in his chamber, read, write, or do any neceſſary buſineſs. Many of them joyned together make ſuch a light that an army may march by them whither they pleaſe, maugre all winds, darkneſs, rain or ſtorms whatſoever. Their wings being lift up and alſo towards their ſhanks they ſhine very glorioſly : the Inhabitants before the *Spaniards* came thither made uſe of no other light, neither within nor without their houſes. But the *Spaniards* (becauſe theſe lightſome creatures do by little and little loſe their light with their lives) do uſe within doors about their buſineſſe lamps and candles. But if they are to march forth againſt an enemy newly arrived, they make uſe of them to conduct them, and each ſouldier carrying four of them about him, divers waies couſen the enemy. For when as that noble traveller Sir *Tho. Cavendiſh* (that compaſſed the world) and *Robert Dudley* Knight, ſon to *Robert* Earl of *Leiceſter*, firſt landed in the *Indies*, and that very night that they came aſhore, ſaw hard by in the woods an infinite number of moving candles and torches as it were beyond their expectation, they thinking the *Spaniards* were come upon them unawares with guns and piſtols, and much light, ſpeedily betook them to their ſhips. Many other Inſects of this kinde are there to be found. But becauſe this ſeemeth to be of moſt account, and to have the preheminence above the reſt, *Oviedus* hath left the reſt undeſcribed. The *Indians* uſe to rub their faces with a paſte made of them, that ſo their bodies may ſeem all of a flame. How this may be, ſince as is ſaid before, the light vaniſheth with the life, I do not ſee, unleſs it be that the light may endure a while after they are dead, but that long it cannot remain is manifeſt by experience.

The *Indians* finding ſo great need of them, in that they could not reſt in the night for the Gnats ſtinging them (the which theſe Glow-worms being kept in the houſe did as greedily hunt after as Swallowes do Flies) and becauſe they could not work by night without this lanthorn of nature, before ſuch time as the *Spaniards* came thither ; they bethought themſelves of ſome means whereby to catch them ; the which I ſhall ſhew partly out of *Peter Martyr*, partly from thoſe reports of others which were eye-witneſſes of the ſame.

Whereas the *Indians* were conſtrained by reaſon of want of light to lie all the night idle, they got them out of doors with a lighted firebrand and crying aloud, *Cucuie, cucuie*, they do ſo beat the air, that either for love of the light they fly to them, or for fear of the cold they fall to the ground ; which ſome with leaves of trees, others with linnen rags, otherſome with little nets made for the purpoſe detain, till they can come to take them with their hands.

There are other little flying beaſts, which ſhine by night, but a great deal bigger than ours, and ſending forth a far greater light. For they ſhine ſo bright that thoſe which take long journeys make them faſt by a way to their heads and feet being alive ; for ſo they may be ſeen afar off to the aſtoniſhment of thoſe that know not the matter : the women uſe no other light to do their buſineſs withall by night within doors but theſe. *Oviedus.*

There are yet other worms of another form, which give light by night, as we read in the Commentaries of Navigation. In the Iſland called *Hiſpaniola*, there are two ſorts of worms which ſhine by night. Some of the length of a mans little finger, ſlender, with many feet, gliſtening ſo bright in the dark, that a man may ſee all round about him for fifty or an hundred paces eaſily. That clear light ſhines forth only out of the clifts, or if you will the junctures of the body near the feet. There are others like to theſe in bigneſs, and altogether as lightſome, but only that their light iſſues from the head. Thoſe things we finde in the hiſtories of Navigation. But whether theſe *Cicindela* be of the kinde of of the *Juli* (as I think them to be): or whether they be like to ours, is not declared. But I gueſſe them ſo to be by the multitude of the feet they have; for the Author reckons them in the number of the *Scolopenders*: *Valerius Cordus in Dioſcor.* makes mention of the *Scolopender* (as he interprets it) whereas it is indeed a kinde of the *Juli* which in moiſt places, and in rainy weather ſhine very bright. Such a one my friend *Brewer* found in *England* in the heath grounds, and ſent the worm dryed to *Pennius.* But that every man may better underſtand it, I ſhal ſet down his own words: I twice found a *Scolopendra* that ſhines in the night (yet as I ſaid they are kindes of *Juli*) in ſummer nights, of a ſhining fiery appearance, in heath and moſſie grounds. The whole body ſhines ſomething more darkly than a glow-worm. He further adds, It once hapned that I came ſweating home to my houſe at night, that I wiped my head in the dark with a napkin, the napkin ſeemed to me all over of a flaming fire; whereupon I wondred a while at this new miracle, all the luſtre ſeemed to draw to one place, then folding the napkin together, I called for a candle, and opening the cloth, I found ſuch a *Scolopendra*, which I had rubbed againſt my head, and had cauſed this ſtrange light like fire: Thus far *Bruerus* who affirms that it was like to the *Scolopenders* commonly ſo called in gardens, and under ſtones and earthen veſſels, wherein women are wont to ſet their choicer plants or ſlips. All the Summer time and Autumn (ſaith *Gaudentius Merula lib.* 3. *memor. c.* 61.) in graſſie ditches and without water when I was at *Lebetium* (which is now called *Jamzarius fort*) I gathered little ſhining hairy worms in the night. The ſame I ſaw in the ditches about *Viglevianum* (which of old was called *Vergeminum*) as *Simon Puteus* and I were walking abroad in the evening to take the air. But what thoſe hairy worms ſhould be, unleſs they be a kinde of *Juli*, I do not know. There is another worm altogether unlike theſe of which we read in *the Book of the Nature of things*: There is (ſaith he) a worm like a ſtar, which ſhines like a ſtar in the dark, it is never ſeen but in great rains, and then it foretels fair weather to come ſhortly after. So great is the coldneſs of this worm, that it will juſt like ice put out the fire.

If a mans fleſh be but touched with the ſlime of this worm, all his hair will come off; and whatſoever it touched therewith it changeth the colour of it into green. But all theſe he handleth untowardly, for he confounds the *Stellio* (which he here cals *Stella*) with the *Salamander* and *Cicindele*, and of theſe he maketh a very confuſed and imperfect Hiſtory. Neither doth *Guillerinus de Conchis*, nor *Vincentius* (which tranſcribed all almoſt out of *Guillerinus*) in his obſcure and dark tract where he reports this ſtory, correct it. But theſe things are nothing to the *Cicindele*, and that which they write concerning the *Salamander* is other where amended. Hitherto of Inſects ſhining in the dark.

Whether or no the Glow-worm being dead doth retain its ſplendor and ſhining, is wont to be a queſtion. *Maſſarius* a very learned man writing on *Pliny* his 9. Book, ſaith it doth, and that boyes taking the Glow-worms uſed to put about their heads the ſhining parts of them; with which if the hands or other parts of the body be rubbed, they alſo will ſhine in the dark. But by the leave of ſo great and learned a man as he is, experience teacheth the contrary. For after the Glow-worm is dead, that part whereof which ſo ſhineth in the night, though not preſently, yet within a few hours after is quite loſt; and ſeems altogether to go away with the vital ſpirits: this is a clear caſe, from experience, and I have often tried the ſame. This I will grant: if a certain number of thoſe that have no wings (for thoſe that have, ſhine not but only when the fly) be but put into a clear Cryſtal glaſs, ſo that the air may freely come at them, with a little graſs, they may perchance give light for the ſpace of ſome 12 daies, if every day freſh graſſe be put to them; but at the length as they languiſh and faint away, ſo the light by little and little is remitted and ſlackned, and in the end they dying (as before is ſaid) it is totally extinguiſhed.

Vainly therefore do ſome boaſt of compoſitions made of them, with which they will keep perpetual light, as they ſuppoſe (amongſt whom is *Cardanus*) as if they would bring down the Moon from heaven. Others there are not learned only but unlearned alſo, who have committed theſe compoſitions to writing, whereby they might the better betray their own ignorance. Of this perpetual light *Albertus* makes mention, who in his Works gathers a whole bundle of lies together as it were into one body. And here now I will ſet down ſome of them that the Reader may be aware of them, and the vanity and levity of the writers themſelves may be manifeſted. Some there are which take a great many Glow-worms, beat them together, put them into a vial of glaſs and bury them fifteen daies in horſe dung. Afterwards they diſtil them through an Alembick, and keep the water in a clear glaſs. To this end *Gaudentius Merula*, who hath heaped up many things together from this and that Author, without any judgement, hath theſe words: *Of theſe Glow-worms being putrefied, there is made a water, or a liquor rather, in a veſſel which will wonderfully ſhine in the dark.* Such a light doth this water or liquor give, by report, that in the darkeſt night any one may read and write, and do any other buſineſs as he pleaſeth. Others leſt they ſhould ſeem not to add to what is invented to their hands (for pregnant wits unleſs they bring forth ſome novelty are not well) together with the Glow-worms digeſt the gall of the Tortoiſe, of a Weaſel, and Sea-dog, puting them in dung, and afterwards they diſtill them. This water they ſay far excels all other whatſoever in luſtre. Others put whole Glow-worms in dung for nine daies to digeſt, others for three weeks, then throwing away the Glow-worms, they take the fat of them and keep it in a clean glaſs for to uſe. Some yet more fondly take Glow-worms, and caſting away their heads, they put to them the ſcales of fiſhes, and rotten ſhining wood, ſuch as gliſſens in the dark, with the gals of Sea-dogs, and ſo diſtill them through an Alembick. Others promiſe confidently to make letters to ſhine in the dark, by pricking out the yellow moiſture of the Glow-worm, and anointing therewith the paper, or painting it with the ſame liquor in form of a ſtar, ſome rub them with the oyl of Linſeed upon marble, and whatſoever you ſhall paint or write, they perſwade us, may eaſily read in the night, be it never ſo dark; but let them believe them that have made the trial. Others after they have digeſted in horſe-dung nine daies, take the liquor that is left in the bottome of the glaſs and write with it, and ſo think confidently to obtain their deſire. *John Arden*, a skilful Chirurgeon, an Engliſh man, walking after their ſteps, above thirty years ago left ſuch a deſcription of this perpetual light in writing: He gathereth a great number of Glow-worms, and ſhuts them in a glaſſen veſſel well ſtopt, laies them in dung fifteen daies, then puts the water he findes in the bottome of the glaſs into a clean glaſs; to which he adds as much of Quickſilver, the droſs being purged from it, and then he ſaith you muſt ſhut the glaſs mouth very cloſe, and hang it where you will, and then for certain (as he affirms) it will produce the wiſhed effect. Some have told me that this is very true, whom notwithſtanding I will not believe untill ſuch time as the experiment be made before mine eyes. Theſe and many the like you may finde by reading, but what credit may be given to them is eaſily conjectured out of what went before. Hence then we may plainly underſtand how fooliſhly and vainly mans wiſdome doth many times vaunt it ſelf, and whither our wits may be carried, if not founded upon right Reaſon, the miſtreſs of all Arts and Sciences, ſhunning with all diligence the uncooth rocks of opinion and ſelf conceit.

How wonderful the works of God are in our eyes, none can be ignorant, who ſhall diligently conſider this little creature and weigh its nature, and its light reſembling that divine light. For who is he that beholds the vaniſhing light of this, that doth not fix the eyes of his minde upon Chriſt the laſting, true, and the chiefeſt light of the world; and doth not call to remembrance, that holy Spirit which doth illuminate our ſpirits in the moſt obſcure darkneſs of our underſtandings? But this inbred light of the Glow-worm, or rather borrowed light which ſome ſeek to extract, others ſtrive to imitate (as for example, *Albertus*, *Cardan*, *Merula*, *Vitalis*, *Mizaldus*) have ſhewed themſelves very fools in my judgement. Neither have they been warned by the fatal end of *Salmoneus* or *Alladius*, who going about to imitate *Jupiters* thunder and lightning, were therewith by him ſtruck dead, and ſo did reap a juſt reward of that their impious preſumption, for they felt the force of true heavenly fire, who thought to counterfeit the like with a vain crackling. Even ſo the wits of theſe times, while they ſeek to extract this light, by their bold enterprize do violate the Deity, and while they would ſeem to adorn and ſet forth the glory of that his work, they rather detract from it and diſgrace it. But we leave theſe to *Ixions* wheel, and proceed rather piouſly, and modeſtly to behold the majeſty, wiſdome, and divine light in this little creature. For he which ſhall go about fully to ſearch the majeſty of the Creator in theſe ſmall creatures ſhall ſoon be confounded with the glory of it.

What neceſſary uſe the *Americans* made of them in their night journeys and buſineſs, before the *Spaniard* brought in the uſe of Lamps and Torches, hath been ſaid already.

But we that live in *Europe*, as we travelled by night (I remember) in *Italy* and other places, we took a great deal of delight in them, not ſo much becauſe they diſpelled the darkneſs with the beams of their ſplendor, but becauſe they did illuſtrate the earth with their celeſtial light, which compared with the light of the Sun and Moon, were not to be deſpiſed.

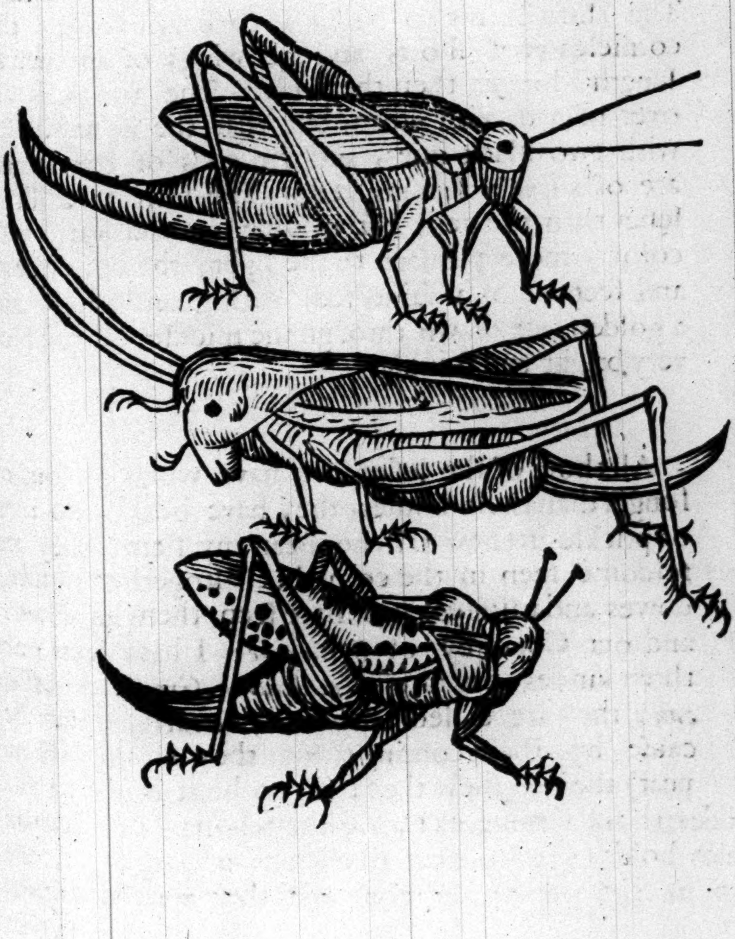
Neither do they only pleaſe the eye, and inſtruct the minde, but they are good for the body in divers diſeaſes, for the female *Cicindele* being put into the matrix of the mule, cauſeth the woman that bears childe with much danger, to be barren; ſaith *Kiranides*. *Cicindeles* being drank in wine make the uſe of luſt not only irkſome but loathſome, as *Benedictus* ſaith; the ſame alſo *Gilbertus* an Engliſh Phyſician, *Albertus*, *Nicolaus*, *Florentinus*, and *Rhaſis* do confidently affirm. It were worthily wiſht therefore that that unclean ſort of Letchers were with the frequent taking of theſe in Potion diſabled, who ſpare neither wife, widow nor maid, but defile themſelves with luſt not fit to be mentioned. *Rhaſis* ſaith that the Glow-worms are very good for the ſtone, if beaten with oil, and therewith the place having the hair clipt off, be anointed, which will never ſuffer it to grow afterwards. *Bairus*. If they be beaten and put behinde the ears, they will divert and evacuate all Rhumes falling into the eyes and teeth. *Anonymus*. The Inhabitants of the Iſle *Sorida* take a good ſufficient quantity of them, and mixing them with freſh black wax make them into a maſs, and lay it in the hot ſands till it be half conſumed away: of this maſs of the bigneſs of a walnut, both young and old do take two hours before meat and two hours after; which do not only infuſe heat into the obſcene part, but vigour alſo. *Thevetu*. But this is not to be underſtood of the ordinary or common *Cicindele*, which as is aforeſaid cauſeth ſterility and barrenneſs; by theſe *Thevetus* meaneth thoſe Glow-worms reckoned amongſt the kindes of *Juli*, the which being taken in drink do after the ſame manner with the *Cantharides*, as *Merula* writeth, provoke both ſeed and urine. *Alexius* very highly commends them for excellent baits to fiſh withall, being faſtened to the hook. ***Weckerus*** ſaith that by a gentle decoction of them in a glaſs ***Alembick***, is made a water very uſeful to that end. But I am rather of ***Alexius*** minde, the which experience alſo confirmeth.

Chap. XVI.

Of the Locuſts.

THe Locuſt is called of the Arabian, ***Gieat, Gierad, Gerad***; of the Illyrian, ***Kobilka, Bruck***; of the Sclavonian, ***Knonick***; of the French, ***Sauterelle, Sautereau, Languoſte***; of the Spaniard, *Lagouſta, Gaſanhote, Gaphantoles*; of the Italian, ***Cavalerto, Soliotta, Saltello***; of the German, ***Heuſchreck, Sprinckhaen, Sprinkell***; of the Dutch, ***Hupperlinck***; of the Engliſh, ***Graſhopper***, from leaping upon the graſs; of the Latine, ***Locuſta***, as ſome think *à locis uſtis*; for that they ſcorch all places where they touch, and eat up and devour all things; of the Hebrew, ***Arbeth***; of the Polonian, *Konick*, *Szarancza*; of the Hungarian, ***Saska***; of the Greek, ἀκρὶς, παρὰ τὸ ἄκρας τῶν ἀσταχύων καὶ τῶν φυτῶν τέμνειν, whence comes the diminutive ἀκρίδιον, ***Locuſtula, vel Locuſtella***, a little Locuſt. The Ionians call them from the number of their wings ***Tetrapleurides***; that is to ſay, four winged creatures; others call them ***Cornopas, Parnopas***, and ***Pornopas***; from whence *Hercules* and *Apollo* were called of the Athenians ***Parnopii***, becauſe they drave the Locuſts out of their countrey, as ***Pauſanias, Hermolaus, Cælius Rhodoginus, Lilius Giraldus, Camerſius, Strabo, &c.*** have obſerved. Notwithſtanding the word ***parnops*** (if the interpreter of ***Ariſtophanes*** deceives us not) ſignifieth that ſort of Locuſt only which is eaſie to be handled with the hands. But before we enter into the deſcription and diviſion of them into their ſeveral kindes, I cannot but admire with *Marcellus Virgilius*, the workmanſhip of Nature, in which I know not, as I may ſo ſay, whether ſhe did more ſeriouſly ſport her ſelf, or more ſportingly labour. For who firſt of all is able to deſcribe ſo many colours in one body? who is able to ſet forth ſo many divers ſhapes of bodies, goings, leapings, flyings. For ſome there are green, ſome black, ſome blue, ſome one part of them of this colour, on the other of another. There are thoſe which are of another colour in their flight, then they ſeemed to be of before. There are ſome fly with one pair of wings, others with more; thoſe that have no wings they leap, thoſe that cannot either fly or leap, they walk; ſome have longer ſhanks, ſome ſhorter, and amongſt theſe ſome have more and ſhorter joynts, ſome fewer and longer, ſome there are that ſing, others are ſilent, as the ***Seriphia***: ſome do no harm at all to tillage, ſo that children may take them up in their hands without hurt: others on the contrary are the peſt and deſtruction of all that up growes through a whole Countrey.

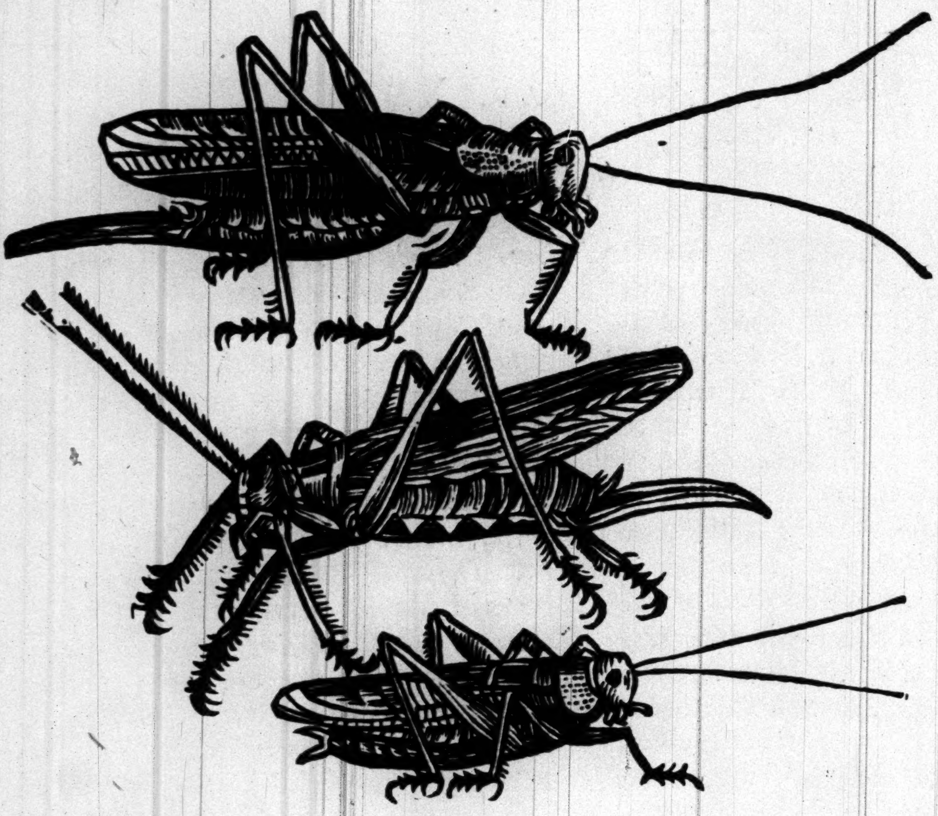
And as there are many kindes of them in nature, ſo their names were almoſt infinite, which through the neglect of Naturaliſts are grown out of uſe.

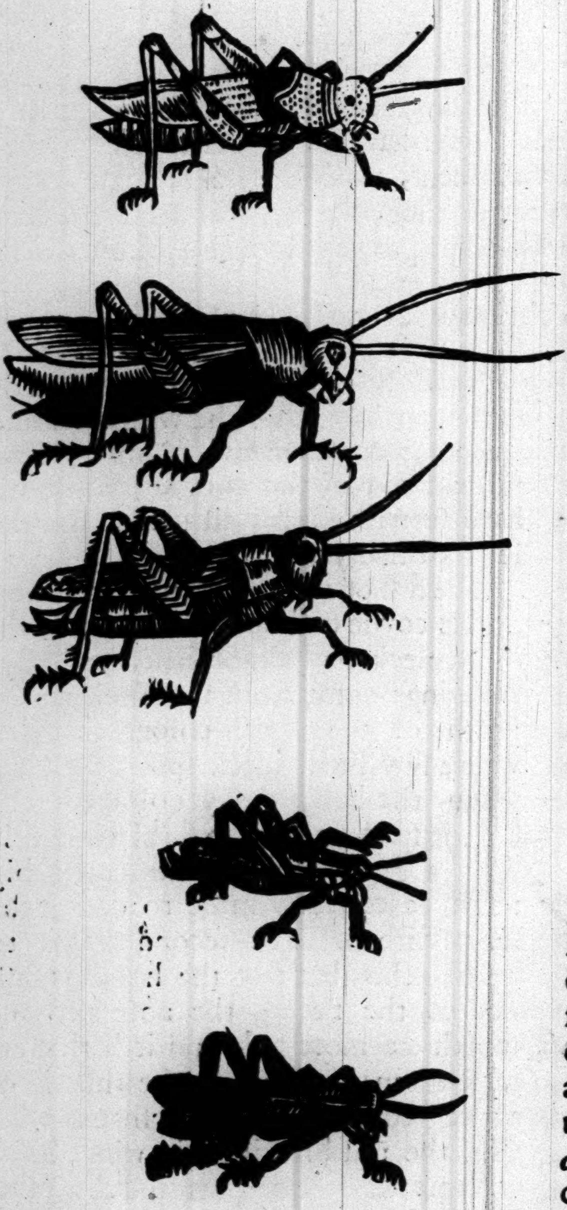


Now all Locuſts are either winged or without wings. Of the winged, ſome are more common and ordinary, ſome more rare; of the common ſort, we have ſeen ſix kindes all green, and the leſſer of many colours.

The firſt of the bigger, hath as it were a graſs cowle or hood which covers the head, neck, and almoſt half the body: the wings come from the neck underneath, of a greeniſh colour, ſpeckled with a few ſmall black ſpots, the back green, the belly dusky coloured, the tail or ſtem at the end blackiſh; it hath a great mouth, and ſtrong big teeth, excellently made to devour the fruits withall. The ſecond ſeems to be like this, but that the hood is faſtned to the neck; the noſe alſo and mouth are more red, and it hath greater ſpots in the wings. The third is of a green countenance, the ſhanks whitiſh, the tail blackiſh, the wings beſet with greater ſtore of ſpots, and about the edges of a pale red.

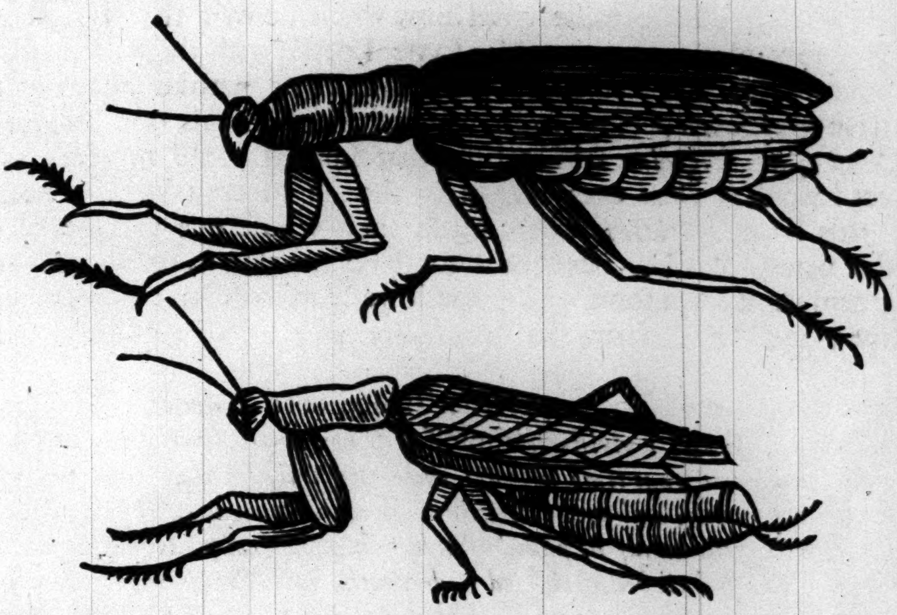
Now theſe are females, from whom the three males differ in this, that either in the end or above the tail they have two or three prickles or ſtings, and the middle of their hood appeareth more red.





The firſt ſort of the leſſer Locuſts, called of the *Tigurines, Holtſſpecht,* is in body black, the utmoſt wings ſpotted, the innermoſt ſpattered with virmilion; the thighs brown or ſwarthy, with black lines curiouſly drawn up and down. Of the ſecond the cornicles, eyes, and ſhanks are of a pleaſant red, the thighs or ſhanks are alſo diverſified with black lines, the wings ſpeckled, the belly of a dark red upon yellow, all which do exhibit a very fine pretty creature. The third ſeems to be of a dark aſh-colour, the cornicles very ſhort, and the wings of an unuſual length, longer then the body. The fourth is all over of a darkiſh green, but that the hood is ſet with two black lines, and the ends of the ſhanks are of a lively ſhining red. The fifth is a little leſſer than the reſt, but in ordering and variety of colour, more pleaſant to the ſight; the body, head, and feet are of a faint red, with green wings, and a golden lace drawn through the middle of the head very bright and ſhining.

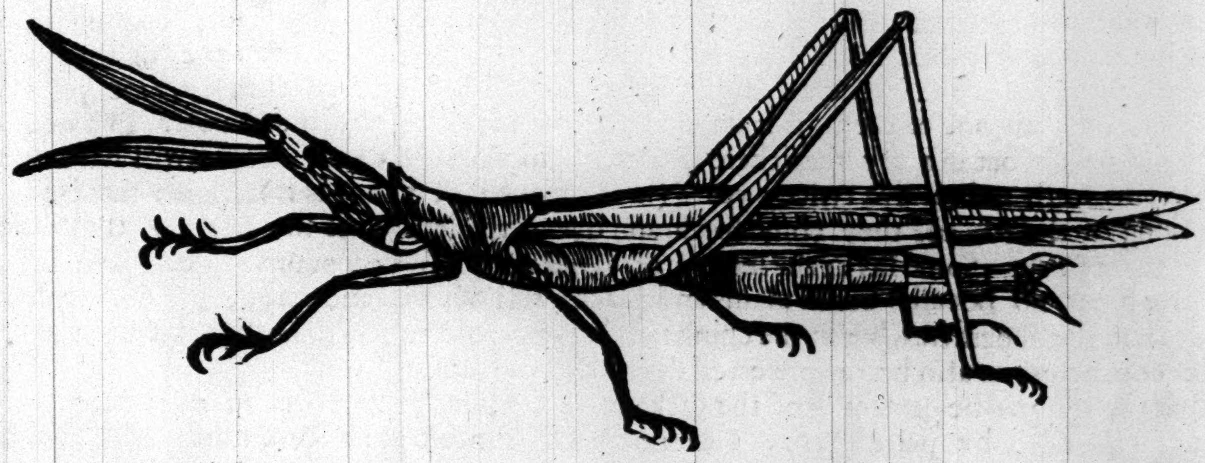
All thoſe of the leſſer ſort have wings as long or longer than their bodies, they have beſides no ſting or prickle in their tail, nor bear any ſtem; they are ſeldome ſeen in the corn but altogether in meddowes and paſtures, as I have ſeen them in *France,* and our Countrey of *Britannie*: I have ſeen only three kindes very rare, *i. e. Italian, Greek,* and *Affrican*: they are called *Mantes, foretellers,* either becauſe by their coming (for they firſt of all appear) they do ſhew the Spring to be at hand, ſo *Anacreon* the Poet ſang; or elſe they foretell dearth and famine, as *Calius* the Scholiaſt of *Theocritus* have obſerved. Or laſtly, becauſe it alwaies holds up its forefeet like hands praying as it were, after the manner of their Diviners, who in that geſture did pour out their ſupplications to their Gods. Of this *Italian Mantis* (whoſe figure we do here repreſent) *Rondeletius* makes mention in his book *de Piſcibus*, in theſe words: *It hath a long breaſt, ſlender, covered with a hood, the head plain, the eyes bloudy, of a ſufficient bigneſſe, the cornicle ſhort, it hath ſix feet like the Locuſt, but the foremoſt thicker and longer than the other, the which becauſe for the moſt part ſhe holds up together (praying-wiſe) it is commonly called with us* Preque Dieu, the whole body is lean.



So divine a creature is this eſteemed, that if a childe aske the way to ſuch a place, ſhe will ſtretch out one of her feet, and ſhew him the right way, and ſeldome or never miſſe. Her tail is two forked, armed with two briſtly prickles: and as ſhe reſembleth thoſe Diviners in the elevation of her hands, ſo alſo in likeneſs of motion; for they do not ſport themſelves as others do, nor leap, nor play; but walking ſoftly, ſhe retains her modeſty, and ſhewes forth a kinde of mature gravity. Though *Pennius* affirms that he often ſaw this kinde at *Montpellier*, yet in his papers he ſaith that he received the figure of it from the worthy *Antonius Saracenus*, a Phyſician of *Geneva*.

Another ſpecies of this *Mantis*, *Carolus Cluſius* ſent from *Vienna* exactly deſcribed, being brought thither out of *Greece*, which is like unto the former in ſhape and magnitude, but of another colour beſtowed on it either by nature or the place where it lives; for it hath cornicles of a full yellow, the eye of hyacinth colour, the wings of a faint yellow, the reſt of the body of Amethyſt, only that the feet ſhanks, as alſo the joynts of them were more hairy and white, and the clawes of the fingers bended backward were black.

I procured one from *Barbary* that was brought out of *Affrick* with ſome coſt to us, ſlender, five inches long, hooded, the head pyramidal, very long, out of which almoſt at the top came forth two little broad cornicles about an inch long, much like that Turbant, which the Turkiſh Janizaries uſe with two feathers in it: a little below the root of it come forth two eyes ſtanding out, great, and of a dark red, the body long, of a bloud red purple; the tail like a Swallow two forked, four wings of ſomewhat an aſh-colour, deckt with certain dunniſh ſpots; the four former feet and ſhanks very ſlender; the hinder ſtrong, brawny, and long, and by reaſon of the ſpots drawn athwart all along the thighs blackiſh. And this of the common or ordinary and winged Locuſts, and of the rarer ſorts ſhall ſuffice to have been ſaid; unleſs the Reader ſhall think fit with me to add more differences of them. The face of the ordinary Locuſts is fierce, long, wrinkled, fenced as it were with ſcales, which even cover the mouth: in the upper part they have teeth faſtned that are broad, black, and very hard, with which they eaſily eat ears of corn, and ſcranch them with a great noiſe. The *Greek* and *African* Locuſt appears with a ſhorter



ter face, and the teeth are ſo weak that it can feed on nothing but the ſofteſt graſs, and tops of hearbs. The common ones have very long horns, but the *Manti* have very ſhort ones; they have a hard breaſt, griſtly, ſtrong, none of theſe almoſt is faint or weak. They have alſo a ſoft belly, long and pointed, but theſe have a hard full brawny belly; both of them have four wings that are skinny and membranous, as made of the fibres of nerves; for though the inward wing folded ſeems two, yet it is but one, when it is ſtretched forth: which deceived *Jodochus Willichius* in his Dialogue of Locuſts, for his eyes deceived him, when he writ that Locuſts had ſix wings, which is falſe. It is very pleaſant to behold in ſome Locuſts their thighs with ſix angles, exactly ſmooth in their void places, and artificially painted in their netlike weavings together: the ordinary Locuſts have great eyes putting forth, whence *Athenaus* cals one *Ebulus*, *lib.* 10. *c. ult.* Ἀττελεβόφθαλμον, *Locuſt ey'd*; *Nigidius* ſaid at large that Locuſts could not ſee, as *Pliny* relates, *lib.* 11. *cap.* 37. yet have they clear eyes like glaſs, though covered with a horny membrane: Nature diſproves this lie of *Nigidius*, which made their whole eye partake of ſeeing. As for colours, Nature that paints creatures, never was more bountiful in it, for though commonly with us they appear green, yet we ſee ſome of them red, yellow, crimſon coloured, purple; and out of *Morocco* all white; and *Ælian* ſaith, that in *Arabia* they are of a golden colour, *lib.* 10. & 13. *de Animal.*

Their Copulation and Generation.

Concerning the copulation of Locuſts, I rather ſubſcribe to *Valeriola* (who hath ſearched diligently into their nature) than to *Ariſtotle* himſelf. *They couple*, ſaith he, (*as I have ſeen*) *by the male getting upon the female, at what time he puts thoſe two prickles that come out of the end of his back into the matrix of the female, and ſo they continue in conjunction very cloſe and for a long time, in ſo much they can ſcarce with your hands be pulled aſunder when once coupled, neither by leaping and motion, or any other way. The female being tickled underneath, moveth her womb very buſily, and applying her ſelf with the bottome thereof to the male, doth hold him for a long while, ſometime with the opening of the matrix, ſometimes with the ſhutting or cloſing of it again, augmenting the pleaſure of her venery: for while the matrix is open the male gets into the bottome or farther end thereof; and when it is contracted or cloſed, ſhe is delighted with the affriction and tickling of the womb and the paſſages thereof.* Now there are to be ſeen two paſſages in the ſecret part of the female ſeparated by a kinde of partition, and are covered over with a little thick cover, which in the outſide is black, hard, and griſtly, but within ſomewhat roughiſh, hairy and wrinkled; at the bottome of this the matrix appears whitiſh like that of Women.

Now the female bringeth forth (as *Ariſtot.* ſaith) the little ſtem that growes to her tail, being ſtuck in the ground, and then layeth all her burden together in the ſame place, not ſcattering up and down, but as it were like a honey comb. Hence proceeds a kinde of little worm in the likeneſs of an egge, included in a little earthly thin membrane, the which being forced open, out come the Locuſts and fly abroad. But (by the favour of ſo great a Philoſopher) they lay eggs indeed in the beginning of Autumn, though not of the faſhion of eggs, as I have ſeen with my eyes, and have had them in my hands. The which feture is ſo tender, that with the leaſt touch it is bruiſed to pieces. Neither is it laid upon the ſuperficies of the earth, but ſomewhat deeper, and in the winter under ground: where in the winter they being perfected by concoction, in the ſubſequent year, almoſt at the latter end of Spring they come forth out of the ſhell or membrane aforeſaid, wherein they were, being little blackiſh Locuſts creeping up and down without either ſhanks or wings, which afterwards in a ſhort time become bigger. They bring forth at the latter end of Summer, and when they have ſo done they forthwith die, certain little vermine breeding about their necks (as it happeneth to the Beetle) in the time of their bearing, which do ſtrangle them. Theſe dying after ſuch a fooliſh faſhion as they do, are yet able at their pleaſure, any one of them, if it do but faſten on his chaps, to kill a Serpent. In a wet Spring the eggs periſh, but in a dry then there is a great increaſe of them. Some will have them to be brought forth and to dye twice a year, (in the number of whom is *Willichius*) that is to ſay, at the riſing of the *Pleiades* they come forth, and dye at the ſetting of the *Dog-ſtar*, then others to be brought forth. Some ſay at the ſetting of *Arcturus*. In mountainy places, and of a thin air there breed no Locuſts, but in plains and places full of clifts and chaps; nor do they lay their egges upon the ſuperficies, but in the chinks and caverns of the earth, both that they may be the better concocted, as alſo better preſerved from cold and rain.

That they ſhould be generated of the carkaſſe of a Mule or Aſſe (as *Plutarch* reports in the life of *Cleonides*) by putrefaction, I cannot with Philoſophers determine; firſt, becauſe it was permitted to the Jewes to feed on them: ſecondly, becauſe no man ever yet was an eye-witneſs of ſuch a putrid and ignoble generation of Locuſts.

Their Death.

They dye ſeveral waies. For the male after copulation (wherein he tarries very long, and as it is probable, till all his radical moiſture, and all his ſpirits at once are exhauſted with his venery) preſently expires. As in like manner all the females as ſoon as they have brought forth, whether with vehemency of pain, or numerous feture, I know not, the which being very great cannot chuſe but ſpend and exhauſt the ſtrength thereof. Oftentimes alſo great ſwarmes of them being lifted up into the air by the wind, which afterwards failing, they fall down into the ſea, or ſtanding lakes. They are reported to paſs over to far remote ſhores, continuing their journey for many daies together, they are to be ſeen very great, and alſo they make ſuch a noiſe with their wings, that you would think they were a flight of birds, and they darken the Sun.

They come oft-times out of *Africk* into *Italy* in great numbers, biting and gnawing all with their teeth, even the doors of their houſes. Neither do they hurt the corn fields, paſtures, meadows, gardens, orchards, with their biting only, but alſo with their black, burning ſtinking dung, and eſpecially with their cholerick and bitter fome or ſpittle, the which (as *Valeriola* witneſſeth) they vent in great abundance out of their mouthes as they bite. Yet notwithſtanding they are not venomous, the *Parthians* and certain of the *Æthiopians* live of them, eſteeming them very dainty meat. They are ſaid in *India* to be three feet in length, their ſhanks and thighs when they are dry ſerving for ſawes to ſaw withall. That ſound or noiſe which they make, *Ariſtotle* ſaith is made with the ruſtling of their wings. But according to *Pliny*, it ſeems to proceed from the hinder part of their head. But I ſuppoſe it is cauſed three manner of waies, by the grating of their teeth as they bite the herbs, with the clapping together of their wings as they flutter up and down with them, with the rubbing of their hard neck and ſhoulders one againſt the other whileſt they leap and themſelves like ſouldiers armed with helmet and breſtplate, are uſed to do.

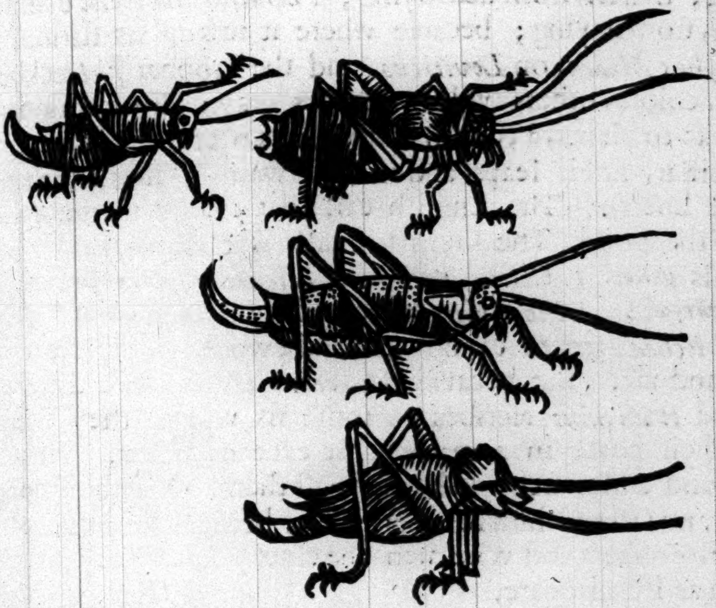
The miſchief they do.

How the Locuſts make a noiſe.

Now we are to ſpeak of the Locuſts which have no wings, and thoſe eſpecially are *Bruchus*, *Attelabus*, and *Aſellus*.

The *Bruchus* taking his name from biting and devouring, may be called a Locuſt without wings deſtroying and devouring the herb of the field. Four ſorts or ſpecies of them are here preſented to view: the firſt is of the male, the ſecond females. The Male hath a pale bloud colour circle or collar about his neck, under which hangs a double hood of a light yellow, and green, mixt; from the back to the tail it is ſet out with ſix leek coloured plates running acroſs from the back to both ſides. The belly, which is ſufficiently great, with the three prickles of the tail, are of the colour of an herb newly preſt out of the earth, of a yellowiſh green, as alſo the thighes, face and cornicles; but the ſhanks ſeem reddiſh. The firſt of the females is all over eruginous, but for a bloud colour line running over the back from head to tail: it is without a prickle growing in the ſtem or tail; it ſeems alſo to be girt about with ten green plates, or rounds. The ſecond is almoſt all over of a light red and brown, the belly a little yellowiſh, the upper end of the ſtem it hath two prickles. The third hath a head reſembling a hogs or ſea-calfs head, in ſtead of cornicles it hath a little beard on each ſide of the noſe; the two bunches or ſwellings on the top of the forehead are like to the ears of a Bear, and it hath two prickles upon the ſtem very ſharp and brown, of the ſame colour with the reſt of the body. Theſe did that famous knight Sir *Edmund Knivet*, freely ſend in picture to *Pennius* for the enlargement of this work, for he is a Knight that is very courteous to learned men, and ſingularly noble both by deſcent and vertue, and famous for his curious ſearch into the knowledge of natural things. The Latines call them *Bruchi*; the Moſcovites, *Chrzaſt*; the Polonians, *Knonick*, the Germans, *Ramp*; the Engliſh, *field Crickets*.

Ἀπὸ τοῦ βρύκειν, i. e.



Attelabus, is a ſmall Locuſt, ſaith *Heſychius*, *Pliny* thinks it one of the ſmalleſt kinde; *Hierome* on the 3. chapter of the prophet *Naum*, cals the little off-ſpring of Locuſts *Attelabi*; *Aquila* more ſignificantly interprets them devourers. A little Locuſt is ſaid to be the mean between a Locuſt and *Bruchus*; it hath ſuch little wings that it is reputed to have none, and ſeems rather to creep than fly: for this cauſe whereſoever it is bred, it bringeth all as it were to meal or ruſt, by grinding and conſuming. It ſeems to ſome to be of the kinde of *Bruchus*, till the wings grow forth, and then it growes into the number of Locuſts. *Stephanus* derives *Attelabus* from ἀτελῶν, becauſe the wings ſeem ſo ſmall as if it had none. The *Attelabi*, as *Ariſtotle* ſaith, do breed in fallow fields, as Graſhoppers do; they bring forth, and when they have brought forth they dye as other Locuſts do; their eggs are ſpoiled by wet Autumns, when the waters increaſe too much; but in a dry Autumn, the *Attelabi* increaſe more, becauſe their eggs eſcape drowning. *Aſellus*, or Ὄνος, as *Dioſcorides* cals it, hath its name from its ſlow motion, it hath no wings, thick legs, but ſhort withall, not like other Locuſts, whence it ſeems rather to creep than leap, it hath a great belly hanging down, as if it were made to devour corn. This Locuſt it may be is called in Scripture ἀττάκης, *Nicander* cals it μάσταξ, and ὀνόβρυς; though, as *Clitarchus* ſaith, in the Dialect of the *Ambraciatæ*, all Locuſts are called μάσταχες, becauſe they eat corn with a noiſe of their teeth. *Franciſcus Stancarus* writ a little Tract of ſeven kindes of Locuſts, according to the Scriptures and Rabbins; but he deſcribed not thoſe four which are numbred amongſt clean birds that the Jewes might lawfully eat; thoſe four were *Arbeth*, *Salaam*, *Chargel*, and *Chagab*, which the Chaldeans call *Gebah*, *Rhaſchen*, *Chargola*, *Chorgeba*; and the Greeks call them ἀκρίδα, ὀφιόμαχον, and ἀττέλαβον. *Arbeth* is a kinde of Locuſt, called ſo from her fruitfulneſs, as *Kimhi*, *Munſter*, and *Broughton* obſerve. The *Septuagint* have tranſlated *Salaam*, ἀττάκην; *Hierome* doth not rightly call it *Scarabeum*, for it is a flying creature, creeping with four feet, and leaping with its two hinder feet longer than the former feet. *Kimchi* makes it a kinde of Locuſt which the Rabbins call *Rhaſchon*; *Abenezra* thinks that to be called *Salaam* that ſits amongſt ſtones; and *Himski* ſubſcribes to this opinion, the foreſaid interpreters called *Chargol*, ὀφιομάχον, for it fights with the ſerpent, and ſtopping the chaps thereof, it kils the Serpent: *Ariſtotle Hiſt.* 9. *cap.* 6. ſaith, *that many have ſeen* τὴν ἀκρίδα, *the Locuſt called* ἀκρίς, *which when it fighteth with the Serpent takes him by the neck.* *Niphus* needed not interpret that ὀφιομάχης to be the *Scolopendra*, or Viper, ſince the Philoſopher cals it directly ἀκρίδα, and the 70. learned interpreters ſay it is a Locuſt: however it ſeems *Niphus* was ſo blinde that he thought it impoſſible for ſo ſmall a creature to kill a Serpent, but we thought it ſafer to relie on the teſtimonies of ſo many learned men, (who had an inſight into Locuſts, and almoſt into all natural things) than upon the conjectures of ſo frivolous a Commentator and deviſer of novelties. *Hagab* or *Chagab* is called *Attelabus*; *Hieroma* cals it *Attacen*. Amongſt the Locuſts ſpoken of, this is reckoned to be the laſt, and is ſet in the laſt place, as likely to be the moſt grievous; for this not only taſts of corn or ſhears it, but breaks and grinds ſtalk and all. It is bred of egges in a land fruitful for corn, which the female left there when the corn was gone.

Kindes of Bruchi.

Five other kindes of Locuſts are numbred up, *Joel* 1. *Amos* 4. *Deut.* 28. and *Pſal.* 78. namely *Gaza*, from ſheating; *Jelak*, from licking; *Chazil*, from deſtroying; *Thelatſal*, from the blaſting and ruſt it brings to corn; and *Chenamal*, from ſtaying; becauſe where it ſets up its ſtation, it tarrieth there, and forſakes it not. *Rodulphus Modius* on *Leviticus* and the Prophet *Joel* reckons divers kindes of *Bruchi*; ſome are golden colour, others yellow, others gray; alſo from a whitiſh worm in frothy dew that in *May* ſticks to plants, a certain winged green creature is bred, in form like to the ſmalleſt kinde of Catterpillar, firſt it leaps, and and afterwards it flies, and therefore I think fit to call it *Locuſtella*, a little Locuſt. The Engliſh call that frothy matter *Wood-ſear*, as if you would ſay the putrefaction of the wood. The Germans call it *Cuckow-ſpittle*: but what form that was of which *Suidas* cals μιλυεῖς; *Celius*, μυλακεῖς; *Nicander*, μαλυκεῖς; *Heſychius*, βρύλλαρα, ἄχνεος, πίλαλλι, ἄρπις, θυλακότρωξ; *Ariſtophanes*, πάρνοψ; *Euſtathius*, μάσαξ; *Phavorinus*, ἄλιγος, and πυαλίς; *Iſidore*, *Ludolochra*; truly I cannot tell, and I would gladly ſee ſome *Oedipus* who would declare their nature and uſe. But becauſe *Marcellus* affirms that there are ſome Locuſts that uſe but two wings: and *Willichius* aſcribes to ſome ſix wings; they ſhould either have deſcribed them, or have held their peace in a matter that exceeds belief. Alſo he ſlipt very abſurdly, when he aſſigned a King and a Monarchy to be amongſt them. May be amongſt many little ones he found one great one, and ſaluted him for their King, becauſe he excelled in magnitude; but *Solomon*, (that was of Philoſophers and wiſe men the chief) ſaith they have no King, but are ſubject to a Common-wealth as Piſmires are.

The miſchiefs Locuſts do.

How God by theſe very little creatures did puniſh the pride and haughtineſs, and hard heartedneſs of *Pharaoh*, is apparent enough out of *Exodus*, and is ſpoken of every where. In the year 170. before the birth of Chriſt, all the meadows almoſt were covered with clouds of Locuſts, and a hundred years after about *Capua* a great multitude of them filled the countrey. *Julius Obſequens*. In the year after Chriſt, 181. the war long enduring in *Illyricum*, *France*, *Italy*, and at laſt being ended, that nothing might be wanting to puniſh thoſe Nations, an innumerable company of Locuſts, and far greater than the ordinary ones, conſumed all the graſs round about. In the year of our Lord, 591. when *Agilulphus* reigned in *Lombardy*, a very great plenty of Locuſts afflicted the Countrey about *Trent*, which are reported to be brought out of *Africa* by force of the winds; but the greater part of them were caſt down with ſtorms and drowned: but they were no leſs hurtfull and deadly to the *Italians*; for by the waves they were brought to the ſhores of *Cyrenis*, and by their venomous ſtinking ſmell, they cauſed ſuch a plague amongſt mortals, that *Julius* writes, that of men and cattel there died above 800000. Alſo at *Venice*, and about *Breſcia* for want of corn, (for the Locuſts had conſumed all) ſo lamentable a plague followed, that in the year 1478. when theſe things hapned, above 30000. men died of it. Again in the years 593, 693, and 811. Locuſts came flying out of *Africa* after a great drought, that devoured plants, herbs, and barks of trees, whence followed a ſtrange famine, and ſuch as is elegantly deſcribed by the Author of *Naumachia*, in theſe verſes:

——————The nurſe childe of death,
Famine was preſent with her empty veins,
The poor with hunger ſtarved, their breath
Was ſpent; for neither broth nor bread remains:
Upon their mouthes and guts hunger laid hold,
They move their chaps, and bite their teeth, not meat,
Through wrinkled skin their bowels might be told:
Nothing but skin and bone, they'd nought to eat,
In ſtead of belly ſtood an empty place,
The breſt hung down, and ſeemed for to ſtay
On the back bones rough grate, pale was the face,
Lips white, eyes ſunk, teeth ſtark, all was like clay.

Nor was *France* free from their teeth and devouring, but in the years ſince the time the Virgin brought forth her ſon, namely in the year 455, 874, 1337, 1353, 1374. was miſerably waſted, and the Citizens conſumed by famine, and very many killed by a plague that followed it, and ſometimes it loſt a third part of the inhabitants. Theſe Locuſts had commonly ſix wings, and were brought thither from the Eaſt. But at length by force of winds they were carried into the Britiſh Sea and drowned there: but by the flowing of the ſea they were caſt to the ſhore, and infected the air, and cauſed a plague no leſs cruel than the famine that went before. *Otho Friſingenſis.* Alſo in the year 1476, they waſted almoſt all *Polonia.* In 1536. innumerable troops of Locuſts were brought by winds from the Sea *Euxinum* into that part of *Sarmatia* which is called *Podolia*, they did change their camps in a military order, and they eat up all that was in the fields where they pitched both by day and night; theſe of an unuſual greatneſs at firſt wanted wings, then their wings growing forth, they flew at pleaſure; and what ſhall I ſay? they eat not only herbs and leaves, and flowers, but hardly left any bark on the trees. Then they wandred through *Germany*, and came as far as *Millan*, and having devoured all there they returned to *Polonia* and *Sileſia.* At laſt in *November*, for ſo long they lived, when they were conſumed by force of cold, they raiſed ſuch a ſtench, that had they not been eaten up by hogs, and wilde bores, they would have cauſed as great a plague, as they had done a famine in *Germany* and *Italy.* In the year 1543, Locuſts did a very great miſchief to the Countreys of *Miſnia* and *Marchia*: at which time they were ſo frequent in *Lucania*, that being in heaps they were above a cubit high. *Jacobus Ekcelius.* In the year 1553, it is commonly known what great dammage the mighty company of Locuſts did at *Arles*: whileſt we were writing this, we received news that the *Spaniards* were ſorely afflicted with ſwarms of Locuſts brought thither out of *Africa.* For they flew like Armies through the skies, and darkned the air. And the people when they ſaw them, rang all their bels, ſhot off ordinance, ſounded with trumpets, tinkled with brazen veſſels, caſt up ſand, did all they could to drive them away; but they could not obtain what they deſired, wherefore ſparing their labour in vain, they died every where of hunger and contagion: as the Mariners and ſteer-men reported to us, who eſcaped very hardly from that danger themſelves. *Eutropius lib.* 4. makes mention of very great Locuſts, which were ſeen not far from *Rome*, to the wonder and amazement of the beholders, the inhabitants were ſo afraid of them, for their devouring nature, that they were frighted at their ſight. Hence we may collect that thoſe creatures are not the ſmalleſt amongſt the Armies of the Lord of hoſts, when he pleaſeth to puniſh the ſins of men, and to revenge himſelf on the deſpiſers of his Lawes. But as his Juſtice is admirable, ſo in his greateſt ſeverity Mercy is not wanting; for being that Locuſts have brought ſundry Nations to want and hunger, and they have had no thing to eat, theſe Locuſts have died ſuddenly, and became meat for the people they afflicted before: the people of hot Countreys, (whom eſpecially they ſpoil of their increaſe of fruits) as the *Æthiopians, Tagetenſes, Parthians, Arabians, Lybians, Mellenſes, Zemenſes, Darienenſes, Africans*, and thoſe that live about *Lepris*, the *Azanaghi, Senegenſes*, people of *Mauritania*, and others, live chiefly upon Locuſts, and account their eggs to be dainties; others prepare them thus: Firſt in a low large place they make a great ſmoak, by which the Locuſts in flying are hindred and forced to fall; than when they have taken them they dry them with ſalt, the Sun and ſmoke, and cutting them in pieces, they keep them for their yearly proviſion, as we do fiſh, not only thoſe which have large legs, but the *Attelabi*, the *Aſelli, Aſiraci*, and almoſt all kindes of Locuſts, as we collect out of *Dioſcorides, Strabo, Pliny, Solinus, Agatharſis, Plutarch, Avicenna, Poſidonius, Leo* and *Dionyſius Africanus, Ælian, Diodorus Siculus, Aloyſius, Cadmuſtus, Agricola*, and the Centuries of Navigations, whence they were called ἀκριδοφάγοι, *Locuſt-eaters.* Yet though they accounted them amongſt their choiceſt meats, yet the *Grecians* eſteemed them but for meaner fare; if we beleeve *Ariſtophanes* and *Plutarch* in *Sympoſ.* where he cals them the Suſtainer of the Countreymans table: S. *Matthew* in the 3. chapter, ſaith that *John the Baptiſt* lived upon them and wilde honey; and God appointed four ſorts of them to be clean, and ſuffered the people of *Iſrael* to feed upon them: whoſoever deſireth more concerning Locuſts for food, let them read the moſt learned Annotations of Venerable *Bede* upon St. *Matthew.* They have no venome in them; yet they that feed on them are not long lived, and ſeldome live to 40 years, and frequently die young, as *Diodorus Siculus, Agatharſis*, and *Strabo* have obſerved. St. *Ambroſe* ſaith that Locuſts hurt neither men nor fruits by themſelves, but nouriſh them; and feed not on fruits unleſs God command them. But when God gives the word, they kill men, ſpoil the ground, and execute the vengeance of God. *Mantis*, as I ſaid, ſhewes travellers their right way; *Ophiomachus* kils Serpents, all Locuſts foreſhew the Spring, and what is more acceptable to us? and if by ſo great multitudes they foretell of famine, by that they ſweetly invite us to prayers and repentance; they live ſo lovingly together, that they ſtand in need of neither King nor Emperor; for they fly together as *Solomon* ſaith, *Prov.* 30. without a King and live in concord, whence is that ſaying of *Eccleſiaſtes, Thy keepers are as Locuſts, and thy children as the young Locuſts*: that is, not only numerous, but unanimous, and conſpiring together.

Their Uſe.

Levit. 11.

Their uſe in Phyſick.

What concerns their uſe in Phyſick, the Locuſts are ſerving to that end alſo: for their ſmell cures the Strangury, eſpecially of women. *Dioſcorid.* Bread eat with the fleſh of Locuſts, is good for thoſe who are troubled with the Stone: fryed Locuſts take away the roughneſs of the nails: Locuſt legs bruiſed with Goats tallow, cure the Leproſie. *Pliny.* *Mantes* cure hard ſcrofulous tumors. *Aſelli* dried and drank with wine are excellent good againſt the ſtinging of the Scorpion. *Attelabi*, cure the ſtinging of Bees, Waſps, Hornets, and hurts by Bloud-ſuckers. *Dioſcorid. Eupor.* and *Pliny* 29. 4. *Arnoldus* preſcribes this compoſition for the white skins of the eye for dimneſs, and a cloud, *Breviarii lib.* 1. *c.* 16. *Let the Locuſts be not altogether green, nor wholly black, thruſt a ſtring through them and ſtrangle them in a little White-wine, then dry them in the ſhade, then take Primroſe roots, and Fennel roots, dry and powder them, and mingle them with the powder of the Locuſts, then keep the powders bound in a cloth, in the ſaid White-wine in a brazen veſſell; of which Wine (the cloth being firſt gently cruſhed) drop two or three drops into the eyes*: As for their quality and temperament; unſalted they heat a little, they inflate, increaſe ſeed, ſtir up venery, when they are ſalted it ſeems they are of worſe juice, they cauſe thirſt and burn the bloud; yet they hurt not dropſie perſons, nor ſuch as are leucophlegmatical. *Silvaticus.* Farther, to touch upon other uſes of them; Locuſts, their feet and wings taken away, are good to feed young Peacocks. *Columella.* Frogs about lakes, and many fiſh feed on Locuſts, which is ſo well known, that *Bellonius* witneſſeth the ſame. Alſo the *Saleucians* have a bird feeds on Locuſts, as *Heſychius* remembers. Jackdawes do alſo devour them; wherefore at the publick charge they are maintained in *Theſſalia, Illyrium*, and *Lemnos*: for they not only deſtroy Locuſts coming, but they alſo devour their iſſue, whereby corn is preſerved unhurt. Alſo they are food for Rooks, Choughs, Hens, Geeſe, Ducks, for Hogs alſo and ſheep, as beſides hiſtories, and long experience, *Plutarch* witneſſeth in his book of *Iſis* and *Oſiris.* Laſtly, if any credit may be given to *Apomaſaris*, a man moſt learned in the learning of the *Indians, Perſians*, and *Egyptians*, to dream of the coming of Locuſts is a ſign of an Army coming againſt us, and ſo much as they ſhall ſeem to hurt or not hurt us, ſo ſhall the enemy.

How they may be killed and driven away.

Now it will be time to ſhew by what means the over great abundance of them may be driven away by the providence and wiſdom of man, and ſo I ſhall conclude this Chapter. *Pliny* ſaith, that in the Countrey of *Cyrene*, it was ordered by a Law, that thrice in the year they ſhould war againſt the Locuſts. Firſt, breaking their eggs, then deſtroying their young ones, then by killing the grown Locuſts. If any failed of this duty they were puniſhed for their default. The *Magneſii* and *Epheſians* march out in military order againſt them. It is no wonder that divers Nations took counſel how to deſtroy ſo cruel an Army, whereas in divers places of *Africa* and *Mauritania*, they are ſo numerous and miſchievous, that they force the inhabitants to ſeek out new habitations. We obſerved out of *Pliny*, *Valeriola* and *Peucerus*, divers waies to break and deſtroy their eggs. At the entring of the Spring, rivers are turned upon the places where their eggs are, ſo that they abundantly wet all the ſurface of the earth, or the greateſt part of it. If the place be ſo ſcituated that they cannot do this, multitudes of men trample over the ground, ſo that no place is left, that is either higher or deeper than the reſt; if they cannot prevail with their feet, they uſe a drag, a harrow, and a rowle that are very heavy, ſuch as Countreymen uſe, that they may the more eaſily bruiſe them, and level the ground the better. Alſo abundance of military Chariots would do no hurt here, for by frequent and often running up and down with the wheels, they would break the eggs: I ſhould alſo commend the uſe of the plough, which would dig and turn up the earth, and cut the neſts of the Locuſts. Some counſel to fright the old Locuſts with ringing Bels, ſounding Trumpets, beating Drums, and by diſcharging great Guns, to make that terrible *Salmonean* noiſe, that may drive them away; ſome think that by great cries and ſhoutings of men, they may be terrified, as if the beating of the air might ſhake them, or as though they heard any of thoſe terrible noiſes, as ſome abſurdly dream. Others make deep ditches in the fields, and with crackers that beat the air, drive the fearful Locuſts thither by degrees, and when they are come into theſe ditches, they are ſuddenly overwhelmed with earth, or caſting in rubbiſh, they cover and deſtroy them. Some affirm that they are taken with pickle made with Locuſts, that by it they fall ſuddenly into a deep ſleep, and afterwards dye. By theſe acts, ſaith *Valeriola*, the Locuſts that vexed the people about *Arls* were deſtroyed in twenty daies time. In *Syria* they fight againſt them in a ſouldierly poſture. In the Iſland *Lemnos*, all Souldiers are bound to bring a certain meaſure of Locuſts to the Magiſtrates every day. Some Nations, as I ſaid, feed Jackdawes at the publick coſt, that as occaſion is they may deſtroy the Locuſts. Moreover the birds, namely Storks, are called *Seleucides*, which the inhabitants of the Mount *Caſſian* formerly obtain'd to be ſent by *Jupiter* againſt the Locuſts that deſtroy'd their corn. Theſe birds come yearly to help them, but whither they fly back, or whence they come, no man can tell. So ſoon as the Locuſts are deſtroyed they forſake the Mountain, and go home again. Our new Authors mightily commend the ſmell of brimſtone, and of gun-powder, and think they will kill Locuſts by their ſmell; but if a cloud of Locuſts or ſwarm come tumbling into a land, let all the inhabitants lie cloſe in their houſes, for if they ſee no man in their journey, they will readily paſs over that countrey, or elſe they will eaſily remain in that place. But if they be come before it be obſerved, they will touch no herb nor corn, nor any thing that is ſprinkled with the decoction of bitter Lupines, and wilde Cucumers, for they periſh ſo ſoon as they touch them. It may be the decoction of the leſſer Centory, Wormwood or Walnut leaves would do the ſame. Alſo they are ſaid to paſſe from thoſe places where bats are hanged aloft on the trees. Moreover, if you burn Locuſts taken in pits, the ſame way as I ſaid, that fume will either choak the reſt that are near, or will make them fall down, that they may be eaſily taken with your hands, or they will dye of themſelves, being afterwards weakned with the Sun. If you would defend vines from them, ſow three grains of muſtard-ſeed near the root, for they ſprouting up afterwards, will by their ſharp ſent, kill all **Bruchi** and Locuſts whatſoever that come near them; as the *Geoponicks* of *Caſſius* and *Dionyſius Uticenſis* (not rightly aſcribed to *Conſtantine* the Emperor) do perſwade us. *Ariſtot.* 4. *hiſt.* 8. ſaith that Locuſts are driven away with the fume of Brimſtone, Harts-horn, or Storax. *Palladius* from the rules of *Democritus, lib.* 1. *tit.* 35. writes that Locuſts will hurt neither corn nor trees, if many river or ſea Crabs be put in an earthen veſſel with water, and be covered and ſet in the Sun, that they may evaporate ſo for ten daies, then whatſoever you would have take no harm, ſprinkle with that water every eight daies, till the corn be perfectly grown. *Arnoldus* ſaith that Locuſts are driven away with the fume of Oxe or Cow-dung, or the ſmoke of the left horn: but why doth he ſuperſtitiouſly exclude the right horn? for reaſon and nature hold right to be better than left. The Magicians truſt much to their trifling charms, whom ſith *Pliny* hath *lib.* 37. *cap.* 9. charged with extreme madneſs, and vanity unſpeakable, I ſhall ſay nothing to detain you with. *Peucerus, lib. de Divinat. gener.* writes, that the *Romans* when they knew not the true God, whenſoever they ſaw ſwarms of Locuſts, uſed faſting, ſorrow, ſacrifices, and all means to pacifie the angry gods, and afterwards they more carefully adored *Jupiter*, who drove them away. *Eudoxus* ſaith, that the oriental *Galatians*, upon ſuch a tempeſt, come to the god of Birds, and deſire him often to drive away the Locuſts that ſwarm in their lands. This ſhould admoniſh us Chriſtians that are entred into the rites of the true God, and are inſtructed by the perfect light, that the ſure way to drive from us hurtful Locuſts is to call upon God by prayer joyned with true repentance and unfeigned piety, without which all our force and inventions will come to nought, nor will all our devices avail at all. For I highly approve of that ſaying, *For all remedies without Gods aſſiſtance are idle enterpriſes of men, but when God is pleaſed, and bleſſeth the means, then are they remedies indeed.*

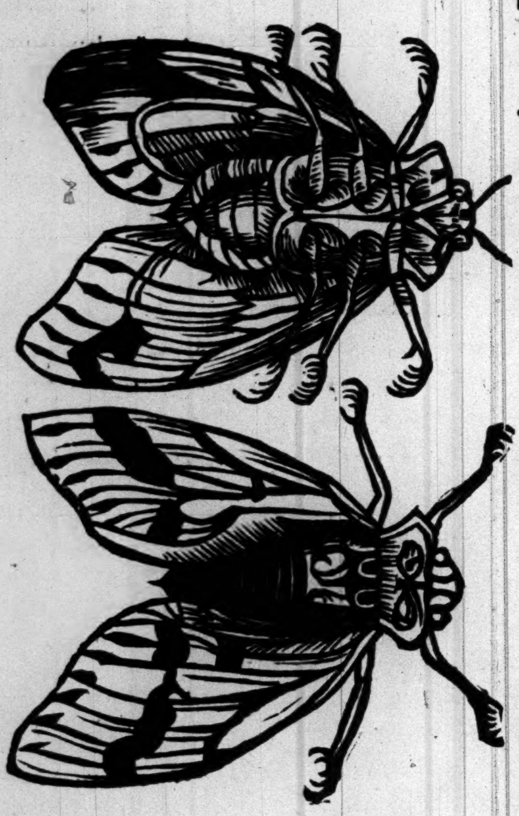
Chap. XVII.

Of Graſhoppers and Krickets.

Of all the Inſects making a ſtridulous noiſe, the Graſhopper challengeth the chief place, and by great right too. For in the heat of the day he ſends forth a moſt ſhrill and muſicall ſound, ſuſtaining his life with dew without doing any harm to herb or trees. Amongſt the Greeks he hath divers names, according to the diverſity of Countreys, generally and by a common name he is called τέττιξ, by the *Eleans*, βάβακος; by the *Sideti*, ζωνὰς; by the *Cretians*, (as *Bellonius* ſaith) σύμφοζον; by the Countreymen of *Suidas*, ἔρση, becauſe it lives by ſucking out of the dew. They attribute alſo divers names and appellations unto it from its ſex, age, bigneſs, and ſinging. For the female which doth not ſing at all *Ælian* cals κερκώπη; *Stephanus*, κολαμαῖα, that ſings not; *Euſtathius* thinks it is not a Graſhopper, but another kinde of creature like it. So doth *Athenæus* ſ. 4. from *Speuſippus*, ἡ κερκώπη ζῷον ὅμοιον τέττιγι καὶ τρυγονίῳ, like to a Graſhopper, or the Bird called a ſmall Turtle. Indeed the words of *Lia* out of *Alexis* cited by *Athenæus* in his *Thraſo*, give in a large teſtimony to the ſame, both that the *Cercopa* had a voice, and was of a divers kinde from the *Cicada* or Graſhopper (I never ſaw the female *Cercope*, nor the Pye, nor the Nightingale, nor the Graſhoppers male) unleſs perhaps the Grecians were wont to keep together in their caves the male and female Turtle, ſo we ſhould ſay they joyned together in like manner, the male Graſhopper and the female Cercopa; for that they did not only keep them together with the Pye and the Philomele, for their ſinging ſake, but that they might behold their mutual embraces, dalliance and luſtful pleaſure. Add to this that *Athenæus* calleth it λαλίστερον, or the more talkative; ſo far is he from attributing all the buſineſs of ſinging and making a noiſe to her male, contrary to the cuſtome of the female.

The Graſhopper when it comes to be old is called τέττιξ, when young and tender κίκκος & κίλλος, as *Heſychius* obſerveth. The little Graſhoppers (which *Gaza* calleth *Cicadaſtras*, and we *Cicadulas*) the Greeks call κολαμίδαι & κερκώπαι, which ſignification I wonder that it is paſſed over by *Stephanus*. The word κολαμαῖον, put ſubſtantively, ſignifieth the leaſt Graſhopper of all, as *Euſtathius* witneſſeth. Τεττιγόνια alſo do ſignifie the leſſer Graſhoppers, as we read in *Cælius*, although *Euſtathius* will have them to be creatures of another ſpecies, like to Graſhoppers, as otherwhere he cals them the females of Graſhoppers. Theſe *Dionyſius* will have ſo called of the Greek word τεττίζειν, from the ſound they make. The more vocal and obſtreperous of them called *Enceladi*, are the *Achetai*, or the Males, making indeed a very pleaſant and muſical noiſe. The other being mute and more wilde are called *Sigalphi*, from their ſilence, as alſo *Acanthii*. In Arabick, *Gituale* and *Cicuale*, *Vulderetriche* and *Robiche*. *Silvat. Cicara* is a barbarous word of a Latine or Spaniſh word corrupted. In Italian *Ligallo*, *Cicara*, and otherwhere *Lazenzala*; In Spaniſh *Cignatregas*, and *Cigarre*; in Germany and England I do not hear that there are any Graſhoppers to be found, but if they be, they are in both Countreys called *Bow-krickels*, or *Baulm Krickets*; in Flanders, *Feildtdreſin*; of the Walloons, (if I miſtake not) *Straffen*; in Polonia, *Konick*, *Zyemnyco*, *Spiewa*. Sometimes the name Krickets and Graſhoppers, are promiſcuouſly uſed, which cannot be, unleſs you will ſay that the Kricket is a Graſhopper without wings. The Latines as ſome that hunt after words will have it derive the word *Cicada, quaſi cito cadens,* (*i. e.*) quickly periſhing. And that indeed is the Epithet that *Ariſt.* gives it, ὠκύμορος τέττιξ, the ſhort lived Graſhopper, for ſo indeed it ſeems to be.

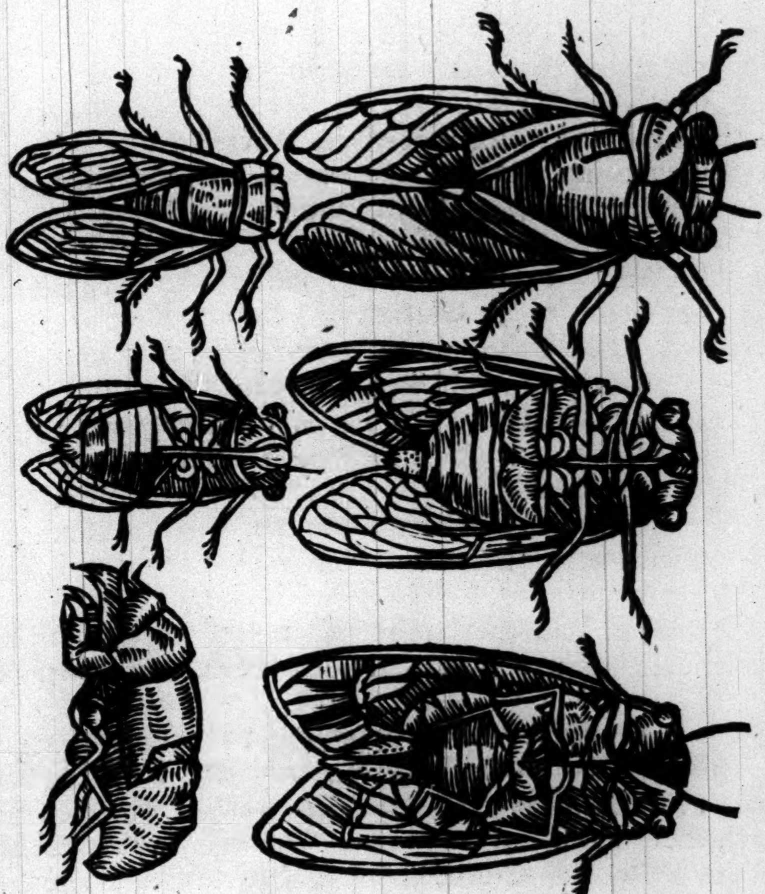
Of the Graſhoppers, ſome are more common, others more rare. The common and ordinary ſo t hath the head big, and bending downward; and is of the figure of a *Pentagon,* terminated with unequal ſides; it is of a blackiſh green colour, having on each ſide two bunches or boſſes of the ſame colour, but of an ovall figure, and edged about with a dark coloured margine, and a line or ſtreak of the ſame running along cuts the boſſes in the midſt, & the letter ἰῶτα of a pure black colour parts the head right in the middle; it hath eyes of ſomewhat a dark green, prominent and big, conſidering the bulk of the body; inſomuch that I wonder that *Nigidius* (that denies that they have any eyes) could not ſee them. But indeed as *Ariſtotle* ſaith they are very dull ſighted. For if you bend your finger and put it back toward their eyes, they will rather come towards you than go from you, and will the ſooner get upon your hand being drawn thereto by the ſhadow of the finger: the head or rather the face looking upward, appears of a weak green from white.



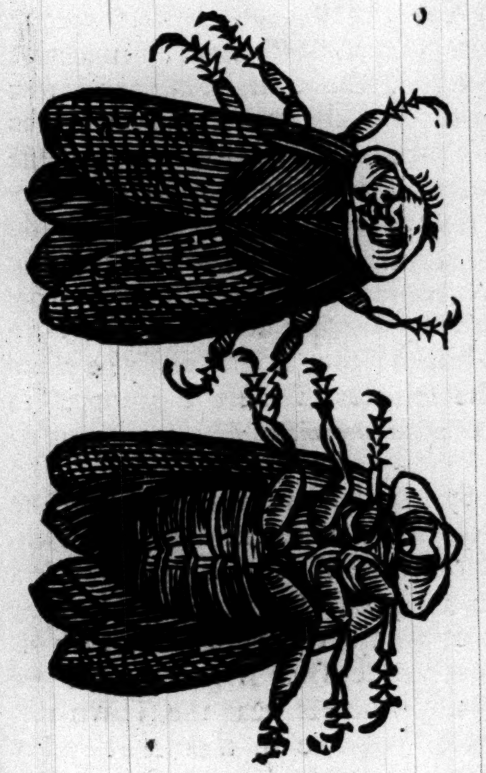
The Graſhopper amongſt the Inſects, is the only one of thoſe kinde of creatures that is without a mouth, but hath it otherwiſe ſupplyed, by a long kinde of compact faſt ſubſtance, which like a promuſcis ſupplieth the place of a mouth and tongue faſhioned round and hollow like a pipe or gutter, reſerved for the moſt part within, having ten ſtreaks running athwart it, with the which it ſucks the dew, the only nutriment that it hath, and which is peculiar unto it, as *Virgil* ſaith, *Paſcuntur dum rore Cicadæ*: Whence it is in *Athenæus* that the queſtion is controverted, afterward concluded, that water alone is able to maintain life, becauſe with it alone the Graſhoppers are ſuſtained. Hence it is that elſewhere he repeats the ſaying of a certain Paraſite to this purpoſe οὐκ εἰμὶ τέττιξ οὐδὲ κοχλίας, *i. e.* I am not ſuch a one as liveth on dew nor herbs. And that of *Theocritus* is very like it: *Doth he live on dew like a Graſhopper?* Away then with that Fable of *Æſop* which is commonly received, that the Graſhoppers begged food from the Ants, for we may learn out of *Plato,* that the Graſhoppers are conſecrated to *Apollo,* and the Muſes beſtowed on them this boon, that they ſhould live only by ſinging, not ſo much as mentioning the dew. We ſhall alſo paſs over thoſe inventions of *Tzetzes* as not worth the mentioning, who reports that the Graſhoppers are alwaies provided with food in great variety. It is reported by *Antonius Altomarinus* in his Book *de Manna,* that the Graſhoppers do ſuck the juice out of the bark and leaves of the Aſh-tree, or Elm chiefly, the which we call Manna, but yet it is more likely that they ſuck it off from herbs, or out of them, as the Butterflies do, both becauſe they are alwaies found to be empty within, and for that they are not perceived to void any thing, unleſs it be when they have taken in a little more dew then ordinary, they caſt out of their bodies the ſuperfluity thereof, as the Countreymen have obſerved.

The body is faſtned to the head by a very ſhort neck, or rather none at all indeed, the ſhoulders are ſpotted with green and black, the breaſt is of a bright green well towards white, out of which come three feet and ſhanks on each ſide of a leek colour; the belly in the bigger ſort is two fingers in length, and one in breadth; the inner part of the belly reſembles a target ending in a ſharp point, and is compaſſed about with an hem having twelve or thirteen joynts in it; within appear certain inciſures of the ſame colour with the belly; the males (that is, the leaſt of the two) have the end of their tail forked; the females on the other ſide whole; their back is blackiſh with ſeven or eight green lines or inciſures drawn athwart the ſame; the wings very curious, of a ſilver colour, and painted with dusky ſpots and ſpecks very trim, the outermoſt twice as long as the innermoſt, and more various: the dark brown is more rarely ſeen, which *Ludovicus Armacus* a very diligent Chirurgeon, brought from *Guinea,* and gave to *Pennius*: alſo Mr. *White* a rare Painter, gave him another brought forth from *Virginie,* it was all of an aſh-colour, (it may be it was that the Greeks call τέφρων) but it was like the former in proportion, it hath both its wings ſilver coloured, but not at all, ſpotted, and the former green ones were. Thoſe that live in quickſets are moſt green and big, thoſe that are found in oats, or corn, or graſſe, are of divers colours according to the place where they be, and are far leſſe then the reſt.

But if we compare their Nature and conditions with mans, they being our ſervants, do excell their Lords and Maſters in virtue; and may teach us manners. For they ſhew forth that harmleſneſs of converſation, that they will not hurt or abuſe any creature; but we perverting the right



right uſe of things, can finde in our hearts many times to abuſe even our parents themſelves. What gueſt will be content with the diet of the Graſhopper; that is ſimple, mean and frugall, not inquinated with variety of diſhes, or cookery, or curious mixtures? yea ſo far hath fooliſh curioſity prevailed with men, that unleſs fleſh of contrary nature, and with them fruits, leaves, ſpices, liquors, be dreſſed together, they think their appetite unſatisfied, & their palat very much wronged, nauſeating that clean and wholſome diet of their forefathers. Thoſe can quench their thirſt with a little dew: we with our diverſity of mixtures do rather invite and increaſe thirſt than allay it. They living in ſhrubs near to the earth (in which they had rather ſing) yet notwithſtanding lead a cheerfull life, and with their high ſtained notes, do make the lowneſs of their condition more eaſie to them. But we men if caſt from any high place, we preſently deſpair, and are afraid at every turn of the wheel of Fortune.



The Graſhoppers hold on ſinging from morning to night, without intermiſſion, very pleaſant and ſweetly; whereas many Preachers neither preach well nor often, ſcarce four times throughout the year: truly they may be aſhamed being bred more civilly, to be admoniſhed of their duty by a wilde muſician. Theſe if you ſcratch or tickle their belly (as Poets which were commended) ſing more ſhrill; but thoſe ſpeak them as fair as poſſible may be, yea invite them with gifts, yet (like the *Argonautæ* of *Martial*) neither uſe the care, nor lift up their eyes or hands to the ſayles. Moreover theſe agree all together in one tune, and beſtow their mutual help in their affairs. But I would to God theſe did not wholly buſie themſelves in ſowing ſtrife, and breeding controverſies, that they did not wrangle together about wool and flax, figures and forms, and ceremonies, and of things decent, undecently and unſeemly. True is the proverb of *Theocritus* concerning them, τέττιξ τέττιγι φίλος, the Graſhoppers are a friend each to other; but man who ought to be a God to man, rather proves a wolf and a Devil, and putting off the nature of a man, tears up his own bowels.

Amongſt the Graſhoppers the females are ſilent; the males do in a manner loath venery, neither are drawn unto it but by many enticements of the female. But our women have more tongue by far than men; and the men behave themſelves more laſciviouſly than women. What is to be added further. The Graſhoppers of all other Inſects ſeem to be without paſſion, but the perturbations of our mindes do carry us on ſo headlong, that upon every ſlight cauſe, yea none at all, we wax hot with anger, pine away with grief, burn with envy and jealouſie.

Now for the muſick which the Graſhoppers make, amongſt all the Inſects there is none like it, accounted ſo ſweet amongſt the Ancients, that they equalled it to the ſound of the Harp, as *Pollux* writeth, and it may be *Lucretius* therefore called Graſhoppers *Teretes*. When *Timon Sillographus* would commend the eloquence of *Plato*, he compared it to the muſick of the Graſhoppers: his words are theſe: Plato *ſings ſweetly, and as well as the Graſhoppers.* They begin to ſing in the heat of the day, even at what time the reapers would otherwiſe leave work, wherefore thoſe laborious chanters get them up into trees, and there fill the ears of the labourers and paſſengers with their melodious noiſe. For as muſick is a kinde refreſhment and recreation to the fainting ſpirits and tired brain, ſo the unaffected notes and layes of the Graſhoppers, and the earneſtneſs of their contention in ſinging, doth ſerve as a ſpur to provoke men to endure labour, and doth not only invite the reapers to gather the fruits, but detains them in their work.

Of the ſtrife between *Eunomus* of *Locris*, and *Ariſto* of *Rhegium* two Harpers, and *Eunomus* getting the better, by reaſon of a Graſhopper flying to his harp and ſitting upon it and ſupplying the place of his broken ſtring: read *Antigonus Mirabilium narrat. l.* 1. *& Strabo Geograph. l.* 6. Of which contention alſo *Solinus* makes mention: and indeed the Ancients by the Graſhopper underſtand Muſick, and therefore they painted the Graſhopper ſitting upon *Eunomus* Harp, as the known Hieroglyphick of the Muſes, as *Strabo*, *Phlegeton*, and *Pauſanias* give us to underſtand.

With the *Athenians* it was the ſymbole of Antiquity and Nobility, and to that end (as now the *Spaniard* doth the golden Fleece) ſo they wear golden Graſhoppers embroydered on their Hair, from whence they were called τεττιγοφόροι. The Author of the Anthologies ſaith further in his third Book, that the Ancients had the Graſhopper in ſuch veneration, that they made a monument for it in the Promontory of *Tanarus* in the Countrey of *Laconia*, and engraved a very elegant Elogy thereupon in its praiſe; to which *Orus Apollo*, *Hieroglyph.* 2. doth ſubſcribe. In a word, there is none to whom the muſick of the Graſhopper can ſeem harſh or unpleaſant, but is either not well at eaſe in his minde or his body, and ſo can be no competent judge of muſical ſtrains. The Grecians had them in ſuch eſtimation, that they kept them in Cages to pleaſe their ears with them.

Now to adde ſomething concerning the manner how they make this noiſe, and then to proceed to their original and death. This ſtridulous and obſtreperous noiſe they make, ſome think to be cauſed one way and ſome another.

Pierius thinks it is formed in the ſnout or promuſcis: *Proclus Diadichus*, by the rubbing together of their wings, ὁ τέττιξ ἄδει ὑπὸ ταῖς πτέρυξι τρίβων ἑαυτὰς ϗ ἦχον ἀποπέμπων, that is to ſay, *The Graſhopper ſings by frequent clapping of its wings together, and ſo it makes a noiſe.* And the ſame thinks *Heſiod.* But that they ſing not with their mouth all men know, as neither by the rubbing of their wings together as the Locuſt doth, but by the reverberation of a little membrame under the *flabells*; (ſo they call thoſe two coverings behinde the hinder thighs cleaving to the belly) or as *Ariſtotle* deſcribes it in brief. They make this noiſe by reaſon of the air ſtriking againſt the membrane under the midriffe; for by that means it being diſtended or remitted, and forced up and down, there breaketh forth a ſtridulous ſound, ſuch as the boyes make with their reed or oaten pipes, which have a thin skin, which being preſſed down, ſhaken or intended, it muſt make a ſound. And this is the reaſon why the female Graſhoppers ſing not at all, becauſe they want that ſpace between the thighs, where this thin membrane growes in the males and cauſeth this ſound. Others make the females to be more cold by far than the males, and that they make the cauſe of their ſilence. But foraſmuch as Eunuchs, old men, and old women, make moſt noiſe and greater than young perſons that are more hot, therefore frigidity cannot be the cauſe. Add further (if we will ſtand to the judgement of *Hippocrates*) that women are more hot than men; but if they be not ſo, yet it muſt needs be acknowledged, that the female Graſhoppers are more hot than the male, becauſe under the midriffe they are not ſo divided, but the males in that place (were it not for that little membrane to hinder) they might eaſily be blown through. Nature certainly intended by denying a voice to the females of theſe Graſhoppers to teach our women that leſſon; ὅσον γυναιξὶ κόσμον ἡ σιγὴ φέρει, *what ornament ſilence brings to the female ſex.*

They begin firſt of all to ſing about the latter end of the Spring, the Sun being gone paſt the Meridian, and perchance in hotter Countreys ſooner, where quickſets or thickets are more rare, there they live more happily, and ſing more willingly. For they are of all creatures the leaſt melancholy, and for that reaſon they do affect not only green and pleaſant places, but champion and open fields. Yea they are not to be found in thoſe places where there are no trees at all, nor where there are too many and too ſhady. Hence it comes to paſſe, ſaith *Ariſt.* that at *Cyrene* in none of the fields there is there any Graſhoppers to be found, whereas near the Town they are frequently heard. They ſhun alſo cold places, indeed they cannot live in them. They love the Olive tree, becauſe of the thinneſs of the bough and narrowneſs of the leaves whereby they are leſſe ſhady.

They never alter their place, as neither doth the Stork, or at leaſt very ſeldome; or if they do they are ever after ſilent, they ſing no more; ſo much doth the love of their native ſoyl prevail with them.

In the Countrey of *Miletus* (ſaith *Pliny*) they are ſeldome ſeen. In the Iſland *Cephalenia* there runs a River, on the one ſide whereof there is plenty of them, on the other in a manner none: that which I ſhould take to be the cauſe, is either the want of trees, or the too much abundance, or elſe a certain natural antipathy of the ſoyl; as *Ireland* neither brings forth nor breeds any venomous creature: for the ſame reaſons they do not fancy the Kingdome of *Naples*; although *Niphus* relates that to be done, by the enchantment of one *Maro*. *Timæus* that writeth the Hiſtory of *Sicily*, reports that in the Countrey of *Locris* on the hither ſide of the River *Helicis* they are marvellous loud; on the other ſide toward the city of *Rhegium*, there is ſcarce one to be heard: they are not therefore ſilent becauſe *Hercules* prayed againſt them for diſturbing him of his ſleep, as *Solinus* fabulouſly relates, but becauſe they are more merry and jocond at home;

as the Cock is: whence it is that the *Locrian* Graſhoppers will not ſing at *Rhegium*, nor theirs on the contrary near *Locris*; and yet there is but a ſmall river runs between them, ſuch a one as one may caſt a ſtone over. Much certainly doth their Countrey (which comprehends in it all the love that may be) move them: where like the people of the Jewes, they refuſe to ſing their native Songs in a ſtrange Countrey; who being caſt out of their own habitation, ſeek means to die rather than waies to live; ſo prodigal ſeem they of their ſhort life, and deſirous after their native dwelling.

They do ſo affect the company of men, that unleſs they ſee fields full of Mowers or harveſt folk, and the waies with paſſengers, they ſing very low and ſeldome, or ſilently and to themſelves. But if once they hear the reapers making merry, talking and ſinging, (which is commonly at noon) then they ſing ſo loud as if they ſtrove who ſhould ſing loudeſt, together with them. Wherefore not undeſervedly was the Paraſite in *Athenæus* called τέττιξ, who being naturally obſtemious by nature, yet was ſo full of talk, as if he ſtrove that no body ſhould be heard at the table but he. *Socrates* in his *Phedro* recites the Hiſtory of the Graſhoppers very wittily, warning men not to ſleep in the heat of the day, leſt the Graſhoppers mock them: for the Poets report how their diligence was highly rewarded. For they ſay that the Graſhoppers before the Muſes were, were men; who afterwards when the Muſes came taught them to ſing; but ſome of them were ſo delighted with muſick and ſinging, that altogether neglecting their meat and drink inconſiderately, they periſhed; the which afterwards being turned into Graſhoppers, the Muſes gave them that for a reward, that they ſhould be able to live even in the heat of the day without meat or drink, neither to have any need of bloud or moiſture.

They couple and generate with creatures of the ſame kinde, as *Ariſtotle* tels us, and the male caſts his ſeed into the female, which ſhe accordingly receives; they bring forth in fallow grounds, hollowing it with that ſharp picked hollow part of their tail, as the *Bruchus* doth, and therefore there is great plenty of Graſhoppers in the Countrey of *Cyrene*. Alſo in reeds, wherewith the vines are propped, they make hollow a place for their neſt; and ſometimes they breed in the ſtalk of the herb *Squilla*, but this brood ſoon fals to the ground.

Their Copulation and Generation.

This is alſo worth the notice, which *Hugo Solerius* writing upon *Aetius* affirmeth, that the Graſhoppers dye with bringing forth, the ventricle of the female being rent aſunder in the birth (the which ſome being very much deceived therein, do report of the Viper) the which I exceedingly marvel at. For they lay white eggs, and do not bring forth a living creature (as the field mouſe doth) unleſs it be by reaſon of weakneſs: of the egge comes a little worm, of that comes a creature like to the *Aurelia* of the Butterfly, which is called *Tettigometra*, (at what time they are very delicate meat to be eaten before the ſhell be broken) afterwards about the Solſtices, in the night come forth of that matrix, the Graſhoppers; all black, hard, and ſomewhat big. When they are thus got out, thoſe that are for the quickſets, betake themſelves thither; thoſe that live amongſt the corn, go and ſit upon that, at their departue they leave behinde them a little kinde of moiſture; not long after they are able to take wing, and they begin to ſing. That therefore which *Solerius* feigneth concerning the burſting of the womb of the mother, I ſhould conceive to be underſtood of the matrixes.

A certain woman did bring up ſome young Graſhoppers, for her delight ſake and to hear them ſing; which became with young without the help of the male, if we may believe *Ariſt. 1. l. de hiſt. anim.* but ſince he hath told us that all the females of Graſhoppers are mute by nature, and this ſpontaneous impregnation is far from truth, either the woman deceived *Ariſtotle*, or he us.

There is another kinde of Generation of Graſhoppers, that we read of. For if clay be not dug up in due time, it will breed Graſhoppers, ſo ſaith *Paracelſus*, and before him *Heſychius*. For this cauſe *Plato* ſaith Graſhoppers were of old time men born of the earth, but by the favour of the Muſes turned into that Muſical ſort of creatures, the Graſhoppers. Even at this day ſuſtaining their lives with no other food than dew, and feeding themſelves by continual ſinging they live. For this cauſe the *Athenians* were called *Tettigophori*, becauſe they wore golden Graſhoppers for ornament in their hair, and for a token of their nobility and antiquity; as *Thucidides 1. Syngraph.* and *Heraclides Ponticus de priſcis Athenienſibus* teſtifie. *Erytheus* makes a proof of this cuſtome, being born of the earth as they ſay, who firſt governed the Common-wealth of the *Athenians*, and they too in the judgement of *Plato*, the Natives were αὐτόχθονες, *i. e. born of the earth.* Afterwards it came to be a cuſtome that none but an *Athenian*, or one born in the place might wear a Graſhopper in his hair: of this opinion is *Ariſtoph.* as alſo his *Scholiaſt.*

Iſidore ſaith that the Cuckow-ſpittle doth generate Graſhoppers, which is not true, but that it produceth ſmall Locuſts is manifeſt. *Lucretius* in his 4, Book, ſaith that the Graſhopper in the Summer doth ſhift his skin, according to this verſe:

Cum veteres ponunt tunicas æſtate Cicadæ;

And for that reaſon he is called by *Heſychius*, γυμνόλεγε τέττιξ, *i. e. the naked Graſhoppers* or without a skin: whom I ſhould not have believed unleſs I had the picture of the skin ſo caſt off by me.

Before Copulation the Males are of the more delicate taſte, afterwards the females, for that they have in them white eggs very pleaſant to the palat. The *Parthians,* as *Pliny* writeth, and the reſt of the eaſtern Nations feed upon them; not only for nutrition ſake, but to open their veins, and to ſtir up their languiſhing appetite, as *Athenæus* in his 4. Book, and *Natalis Comes* expreſly affirm. Hence *Ariſtophanes* in his *Anagyrus* out of *Theocritus,* writes that the gods did feed upon Graſhoppers, at what time they had loſt their appetite through choler or paſſion. I have ſeen, ſaith *Ælian l.* 12. *c.* 6. thoſe that ſold them tyed in bundles together for men to eat, to wit, the moſt voracious of all living creatures did ſell the moſt jejune, leſt any thing ſhould be lacking to their exquiſite dainties.

Their uſe in Phyſick.

Dioſcorides gave roſted Graſhoppers to eat, and ſaith they are very good againſt the diſeaſes of the bladder. Some, ſaith *Galen,* uſe dryed Graſhoppers for the Colick; they give according to the number 3, 5, or 7 grains of Pepper, as well when it goes off as when it comes on. *Trallianus* bids to give them for the Stone, dried and beaten, the wings and feet firſt of all taken away, and this to be done in a bath with ſweet Wine and Hippocraſs. *Ægineta* uſeth them dryed for the Stone in the reins, and for the diſeaſes of the reins he invented the compoſition called *Diatettigon.* Such another like Antidote doth *Myrepſus* preſcribe, but all heads and feet as ſupervacaneous members being caſt away. *Luminaris* hath tranſcribed an Electuary out of *Nicolaus* of this ſort. Take Graſhoppers, their heads and legs caſt away, two ounces, Gromwel ſeed, Saxifrage ſeed, each 1 ounce: Pepper, Galanga, Cinnamon, of each 2 drams, Lignum Aloes, half a dram; honey what is ſufficient. *Nicolaus* uſeth Graſhoppers burned and powdered, mingled with honey, and gives them about the bigneſs of a bean in a quantity of wine. *Aetius* gives three Graſhoppers beat in Wine. Some in ſtead of Cantharides uſe Graſhoppers to provoke urine, and in my judgement not without very good reaſon; for they are taken with leſſe danger, and do work ſooner, as well in this diſeaſe, as in the weakneſs of venery. *Nonus* the Phyſician preſcribes an Antidote of Graſhoppers, and *Xenophyllum,* againſt the Stone in the kidneys. *Aretæus* for the remedies of the bladder, ſpeaks thus of Graſhoppers; *The beſt remedy for the bladder, is a Graſhopper given in its time to eat* (Males before copulation, but afterwards Females, as we finde in *Ariſtotle*) *but out of their time, dried and powdered;* boyl them with water and a little ſpike: alſo let the patient ſit in the ſame for a bath to eaſe the pains of the bladder. Some of our later practitioners, put Graſhoppers in oyl, and ſet them in the Sun, and mingle them with oyl of Scorpions, and anoint the privities of men and women, the teſticles and parts about with it for pains of the bladder. *Arnoldus, Breviar. l.* 1. *c.* 20. & 32. commends the powder of Graſhoppers for the Colick, and Iliack paſſion, and alſo to drive forth the Stone; if half a Graſhopper in powder be drank with Goats bloud, or Diuretick wine. *Lauframus* highly eſteems the aſhes of Graſhoppers to break the Stone, taken with Radiſh water, or the decoction of chich Peaſe. Alſo they cauſe idle and lazy boyes to hunt after them: *Theocritus* ſpeaks thus of it in his firſt *Idyllium.*

Hee with thin ears of corn bound to a cane did make
A whip, for Graſhoppers to hunt and take.

Neither are they only excellent meat, and very uſefull in Phyſick to men, but they feed Birds alſo, and inſnare them. For the youth of *Crete* (as *Bellonius* witneſſeth) hide a hook in the body of a Graſhopper, and when they have faſtned it to a line, they caſt it up into the air; which the Merops ſeeing, catch it and ſwalloweth; which when the boyes perceive they draw it to them; and ſo do exerciſe their air-fowling not without profit and pleaſure.

The Graſhoppers abounding in the end of the Spring, do foretel a ſickly year to come, not that they are the cauſe of putrefaction in themſelves, but only ſhew plenty of putrid matter to be, when there is ſuch ſtore of them appear. Oftentimes their coming and ſinging doth portend the happy ſtate of things: ſo *Theocritus,* ϗ τέττιγες ὧδε λαλέοντι. *Niphus* ſaith that what year but few of them are to be ſeen, they preſage dearneſs of victuals, and ſcarcity of all things elſe. But whereas *Jo. Langius* (a Philoſopher of great reading and learning, and a famous Phyſician) ſaith *lib.* 2. *epiſt.* that Graſhoppers did eat the corn in *Germany* as the Locuſts do; *Stumſius,* that it was done in *Helvetia*: *Lycoſthenes lib. prodig.* and the Greek Epigram doth affirm, that they eat the fruits and crop the herbs, truly (unleſs they mean a Locuſt in ſtead of a Graſhopper) they declare a ſtrange thing, and (ſaving the credit of ſo famous men) I will not believe, for they have neither teeth nor excrement as hath been ſaid, but only feed and ſwell with the dew. Beſides, although I have gone over all *Helvetia, Germany* and *England,* and have ſearcht for a Graſhopper as for a needle, yet could I finde none. And therefore I ſuppoſe that both they themſelves, as alſo *Guill. de Conchy,* and *Albert. Vincentius,* to have miſtaken the Locuſt or *Bruchus* for the Graſhopper, being deceived by the common error, who take the one for the other. They that deſire more of their nature and uſe, may conſult the Authors of the Greek and Latine Epigrams, with praiſing them or diſpraiſing them according to their own humour.

The *Ægyptians* by a Graſhopper painted, underſtood a Prieſt and an holy man; the later makers of Hieroglyphicks, ſometimes will have them to ſignifie Muſicians, ſometimes pratlers or talkative companions, but very fondly. How ever the matter be, the Graſhopper hath ſung very well of her ſelf in my judgement in this following Diſtich:

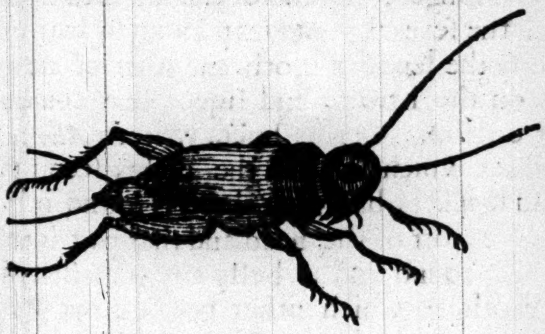
Sim licet inſecti genus exiguum atq; minutum,
Magna tamen parvis gratia rebus ineſt.

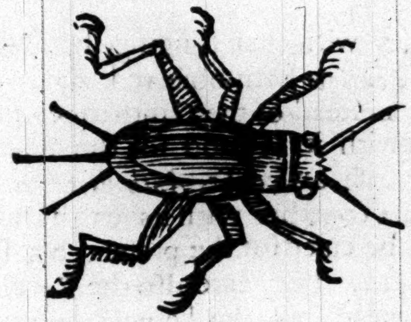
Although I am an Inſect very ſmall,
Yet with great vertue am endow'd withall.

The name of the Kricket,

Next in order followeth the *Gryllus* or *Kricket*, both for that it reſembleth it ſomewhat in ſhape, the wings excepted, but comes very near it in its note and manner of ſinging. *Calepine* ſaith it is called in Greek γρύλλος, but citeth not his author, neither can he. Others from the ſhrill ſound think it to be ſo called, like the noiſe of the daſhing of waves, which is called *Gryliſmus*, in the number of whom is *Iſidore*. *Hadrianus Junius* calleth it from the harſhneſs of the ſound ἀχεῖν but not rightly; whereas I have proved out of *Ariſt.* that to be a greater ſort of Locuſts. *Freigius queſt. lib.* from *Pliny*, calleth it *Tryxalis*; the which notwithſtanding it be an Inſect without wings as the other is, yet it is not at all like to the *Gryllus* in form or ſhape. It is called alſo in Latine *Gryllus*; in French, *un Gryllon, Crynon*; in Arabick, *Sarſir*, if we may believe *Bellunenſis*; in Barbary, *Gerad*; of *Aviten*, *Algiedgied*; of the Polonians, *Swierc*; Hungarians, *Oſzifereg*; in Germany, *ein Grill, ein Heyme*; about Argentinum (from the moneth wherein it ſings) *Brach vogle*; of the Illyrians, *Swiertz*, *Czwrczick*; of the Italian and Spaniard, *Gryllo*; of the Engliſh, a *Kricket*; of the Dutch *Croket*, *Nachtecreket*.

The Gryllus or Kricket is of two ſorts, the field Kricket, and the houſe Kricket. *Pliny* refers them both to the kindes of black Beetles, but improperly, ſince they have not their wings in a cover, but only thin membranes, though the outmoſt are far thicker than thoſe that lie hid under them. *Calepine*, that came after him, makes it a kinde of Locuſt, but his error is the ſame. *Niphus* on *Ariſtotle*, *hiſt.* 5. 28. & 29. cals them ground Locuſts and Bruches, as alſo *Albertus* by ignorance cals them Graſhoppers. Of the field Krickets, ſome are males, ſome are females: the male is welnigh as big as the Graſhopper, but the body ſomewhat longer, of a blackiſh colour, the head for the bulk of the body, big; the eyes great, ſtanding out, the fore-head horned, but the hornes without joynts, which notwithſtanding are moved to and fro with eaſe. It hath ſix feet coloured like the body, the hindermoſt longer than the reſt, for the more nimbleneſs of motion and leaping; they go (as all the reſt of the Krickets do) forward and backward; the wings as it were ſlightly engraven, and crooked, covering almoſt all the body, the tail forked, the body leſs than that of the female; ſhe having a bigger belly, is of an unſightly green colour; the eyes graſs-colour, the cornicles reddiſh, the tail three forked like a Trident, in bulk of body differing from the male. In the Summer they are found in the fields, making holes in the earth, and building their neſts. In a calm Winter they lie hid, in a cold and ſharp they die in their holes, the which they ſeem to have digged without the help of a Pioneer.





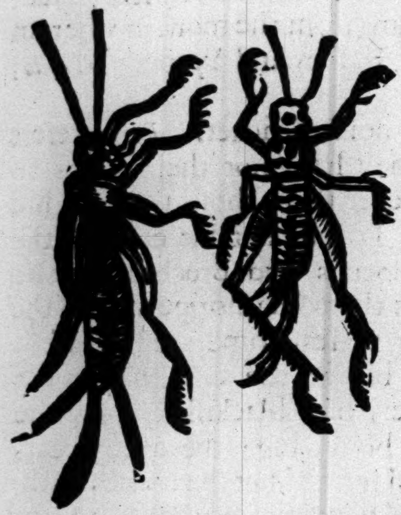
The noiſe which they make is cauſed by the rubbing of their wings one againſt the other, as *Pliny* witneſſeth. *Jacob Garret* an induſtrious and ingenious Apothecary did the ſame with the wings pluckt off and rubbed together, very cunningly imitating them: inſomuch that I wonder at *Scaliger*, who ſaith it cometh from a kinde of I know not what follicle and pipe placed in the hollow part of the belly; and at *Sabinus* who aſcribeth it to the colliſion or grating together of their teeth: the which *Pliny* alſo, but falſly, writeth of the Locuſts. When as either of them through the narrowneſs of the paſſages of their holes do lightly rub their wings, whether field Kricket or domeſtick, they make but a ſmall ſound: but when they are out of doors and rub hard, they make a very ſhril loud noiſe, yet not at all without the motion and agitation of their wings: the which if you crop or pull off, you ſhall ſee all that noiſe preſently to ceaſe. In the heat of the day (in which they are much delighted) and in the night alſo they ſing before their holes mouth.

Their common abode is in paſtures and medows; they do not willingly tarry in ſhady and opacous places, they ſeldome live till winter as *George Agricola* writeth.

Nigidius gives great credit to them, but the Magicians more; becauſe they go backward and make a noiſe in the night, and make holes in the earth. The farther off they are, they make the ſhriller noiſe; whereas being near at hand they are ſilent, and through fear or ſuſpicion preſently betake themſelves to their holes. The Kricket, (ſaith *Albertus l. 4. c. 7. exercit. 273.*) if it be divided in the middle, or have the head taken off, yet ſings and lives a great while after. The which if it be true, what ſhall become of that pipe in the belly of them which *Scaliger* ſaith doth cauſe the ſound? The children uſe to hunt them with a Piſmire tyed about the middle with a hair, which they put into their hole, blowing away firſt of all the duſt leſt ſhe ſhould hide her ſelf again, and ſo is drawn out by the Piſmire. *Plin. l. 29. c. ult.* But ſooner and with leſs labour is ſhe taken thus, take a long ſmall twig or a ſtraw, and put it into the holes and draw it out by little and little, out ſhe comes preſently to her holes mouth, as it were to ask what the matter is, or who offered that injury to her hole; and ſo is taken. From whence cometh the Proverb, *Stultior Gryllo, more ſilly than the Kricket*; of him that for every light cauſe doth betray himſelf to his enemy, and wittingly brings himſelf into danger. They live upon new Panick, ripe Wheat and Apples.

The houſe Kricket (if we may believe *Albertus*) is called of the Greeks ἀχέτας, but no ſuch name can be found. It may be he took a barbarous word for a Greek: the Engliſh call them *houſe Krickets*, the Germans, *Heimgrill*.

Pliny l. 11. c. 28. writing of the Scarabee (among which he falſly reckons the Kricket) hath theſe words: Some of them dig holes in the ground, others of them in the dry earth between the fire and the oven, making a great noiſe in the night. The Domeſtick like the former are both male and female. The male is almoſt all over of a dunniſh colour, the back of a various dun, or rather black; the body long and much leſs than the field Kricket; the head almoſt round, the eyes black, the cornicles movable every way, in form and ſhape all alike the field Kricket; about the root of the middle feet two ſnow white lines do croſs the back and adorn it.



In the moneths of *July* and *Auguſt* they fly, but not far nor long; and that like the Wood-pecker, or Hickway, with a waving flight, ſometimes flying aloft with her wings ſpread abroad, ſometimes deſcending with her wings cloſe to her body: the tail is forked. The female is the bigger and longer bellied, ſhe flyeth with four wings, of which the outermoſt are ſhorter, the innermoſt narrower and longer; the end of the tail hath three prickles or briſtles. Both the ſexes fly, and leap and run, and that ſwiftly, they lick in greedily the ſcum of broth, and barm of ale or beer; they feed likewiſe on the matter and liquor that cometh out of corrupted fleſh or carrion. Of this Inſect writeth *Albertus* thus: The Gryllus or Kricket which ſings in the night, ſeems to have no mouth as the field Krickets have, but there is found in his head a long thing like a tongue, and it growes above the outer part of the head, and that part is not cloven, as the mouthes of other creatures; neither is there found in the belly any ſuperfluity at all, although it feed on the moiſture of fleſh and fat of broth, to which either powred out or reſerved it runs in the night; yea although it feed on bread, yet is the belly alwaies lank and void of ſuperfluity.

The Uſe. The Kricket doth not only recreate men weary with labour, with their ſinging, but are good for phyſick alſo to drive away diſeaſes. The Ancients (as *Scaliger* hath obſerved *Exercit.* 186. and found it by his own experience to be true) did uſe them in ſtead of the Cantharides, and with the like ſucceſs. It being dug out of the earth with the earth with it, is good for the running of the ears. Being rubbed between the hands it cureth the diſeaſe called St. *Anthonies fire*, as alſo the ſwelling of the jawes: but this Kricket muſt be digged out together with its earth with iron, and afterwards be rubbed; and ſo the patient will not only be cured for the preſent, but ſhall be free for a year from having the diſeaſe again, *Plin. l.* 30. 4, 9, 12. They cure alſo the *Parotides, i.e.* an Impoſtume or ſore coming of matter diſtilled from the head into the kernels of the ears; whether they be bound upon the place, or the place anointed therewith; they ſerve alſo, together with their earth, to anoint the Kings-Evill. Their aſhes mixt with oyl, bring old ulcers to Cicatrice. The Kricket diluted in water is good againſt the Stone or difficulty of urine. *Bellunenſis* uſed to drop the oyl of them into the ears of them that are diſeaſed in that part; by that means taking away all the dolour and pulſation of them. *Marcellus* much commends the ſtroking of them upon the tumours of the jawes, and binding them upon the ſame: and in the opinion of *Haly* being hung about the neck, they cure the Quartan Ague. *Serenus* ſaith they cure the ſwelling of the Tonſils in this Diſtich:

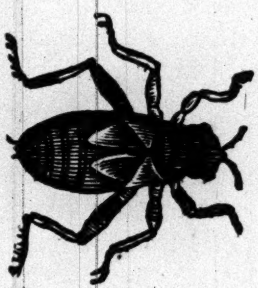
A Kricket with right hand on Tonſils preſt,
To kill the Kricket, gives the patient reſt.

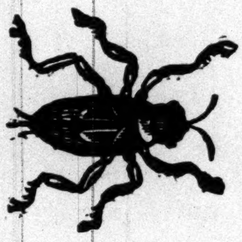
Children (as the *Italians* do Graſhoppers) do keep them in a box bored full of holes, or bags, to hear them ſing in the night, giving them leaves of herbs whereon to feed, and ſo keep them all the Summer. They are kept in *Africk* in iron cages, and are ſold at a great rate, as I have heard by ſome Merchants, to cauſe ſleep. For thoſe of the inhabitants of *Feſſe* are exceedingly delighted with their ſhrill noiſe; as much as the *Iriſh* and *Welch* with the ſound of the Harp. With which alſo learned *Scaliger* ſeems to be not a little affected, when for their muſick ſake he kept them incloſed in a box, the which if he had kept in ſuch a thing where they might have had air, he had not found dead after three daies, but able to live a long while: *lib. de plant.* For being ſecluded from the air they cannot live, which beſides air and ſound have nothing in them, nor ſeem to be any thing elſe. The laſt Summer I had a male and a female of them; but within eight daies, I found the ſides of the female eaten out by the male, which alſo it ſelf two daies after expired.

The Bird *Lanio*, as the learned *Brewer* hath obſerved, is fed with them. The which ſhe faſtens upon thorns near to her neſt of young, for fear they ſhould want food.

When they become offenſive by reaſon of their number, thus they may be driven away or taken off. Take a good deep diſh filled of water, and place it before their holes mouth with a good deal of oatmeal round about it; ſo the Krickets leaping up into the boul are drowned: or if you mix water with Vitriol and inject it into their hole, they will be gone.

There is one little winged creature behinde, which whether it may be referred to the Claſſis of Graſhoppers or Locuſts I know not. For by that it flies in ſwarms, and eats the corn, it may ſeem to be a Locuſt; but in figure and ſhape it is likeſt the Graſhopper above any thing. The viſage of this creature is wonderful reſembling an Infants; it hath on the head a three cornered cap, in the top of which are four black ſoots; two often very long, the other two almoſt round, between which you may perceive two very little points or pricks; it hath four wings, of which the innermoſt are folded double when it ſits ſtill that you would think it to have ſix wings. And theſe it may be were thoſe Locuſts of which *Cuſpianus* hath written out of *Sigebertus*. In the moneth of *Auguſt* (ſaith he) in the year 874, a wonderful ſwarm of Locuſts having ſix wings, and ſix feet, did fly out of the Eaſt, by which almoſt all *France* was deſtroyed. You would ſay at firſt ſight they had a hood upon their ſhoulders; but if you look nearer hand, it is nothing but the upper part of the wings incloſed with a ſemicircle. The body very thick, of a black and dun colour, the hinder part of the wings were all full of black ſpots. *P. Quickelbergius* of the City of *Antwerp*, ſent over this to *Pennius* out of *Africk*, the which I keep to this day in my ſtorehouſe of Inſects, by the name of a young Graſhopper. And as little am I ſatisfied concerning the *Tryxalis*, (ſpoken of before) it had its name it may be from gnawing or eating. But that it ſhould be either the Bruchus, or the little Herb-locuſt, Graſhopper, or Kricket, I cannot be induced to believe. Not only becauſe *Athenæus*, *Pliny*, and other Philoſophers are not agreed in that very point; but beſides, becauſe they do much differ in form and nature: and why I pray may not τρύξαλις be derived from τρύζω, to make a noiſe? and if it be, truly it will beſt agree with the Krickets, which becauſe of the noiſe it makes, it may be as true of the Cricket, which *Peucer* very well diſtinguiſheth from the Blatta or Beetle, as by other things, ſo by the noiſe it makes: that which *Joach. Camerarius*, ſon of that great *Camerarius* and heir of his vertues, firſt obſerved. *Pliny* adviſeth to roſt 20 of them and to drink them with ſweet wine againſt ſhortneſs of breath, and ſpitting of bloud. The aſhes of them in honey, applyed to the rugged edges of ulcers takes them down; they are likewiſe exceeding good for the ſtopping of womens courſes or monethly purgations.





Hitherto I thought good alſo to refer the water Graſhopper of *Rondoletius*, whoſe head is like a pentangle, having as it were five corners, the eyes round and ſtanding out of the head, not great, but black; the cornicles very ſhort, coming forth out of the outermoſt part of the mouth; on each ſide it hath three feet, the hindermoſt longer than the reſt; on the back it hath little wings, or ſome coming; the tail forked, the belly oftentimes as it were cleft; the colour of the body ſomewhat dun, or rather black and white. I found them in muddy and ſtanding waters, but the nature of it I yet know not. This differs from the land Graſhopper, both for that the head ſtands out more, and it ſeems to have ſome kinde of neck, and alſo it hath wings not fit for flight, but only to lift it ſelf up. This is ſaid to make a kinde of a pleaſant noiſe like the land Graſhopper, upon the leaves of the water Lilly, pond-weed, and other water herbs. The which I have not as yet heard.

Chap. XVIII.

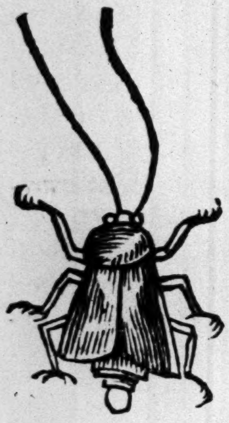
Of Moths called Blattæ.

Moſt men talk much of the *Blatta*, but few or none able to deſcribe what the Blattæ, properly ſo called, are, neither do they give the leaſt mark whereby they may be known; but gathering divers notions here and there do put them all together and confound them. And but that *Pliny* had brought ſome light to this Hiſtory, the Blattæ had altogether been omitted or loſt. Firſt of all therefore we ſhall ſhew to what Inſects the name of Blatta was given according to Authors, then we ſhall ſet down what the true *Blatta* and properly ſo called is. Now under the name of Blatta are comprehended both the worms growing in the ears, as alſo thoſe *Phalenæ* which trouble the Hives of Bees. But ſince theſe deſire the light, the other altogether ſhun it, why they ſhould be accounted Phalens, I do not ſee. The Blatta alſo is a little worm eating cloathes or books. So *Horace* in his Sermons, *Blattarum & tinearum epulæ &c.* But *Martial* altogether diſtinguiſheth between the *Blatta* and the *Tinea*, and ſheweth them to be creatures of ſeveral kindes.

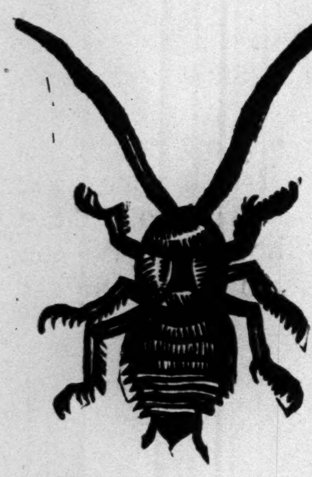
It is taken alſo of the Moderns for the little worm called σὴρ, out of whoſe web ſilken garments are made. Some call the little worm that groweth in the grain in the low oake, Blatta, from whence cometh the Blattean colour, or grain colour. So *Turneb. adverſ. l.* 18. *c.* 17. *& l.* 28. *c.* 23. The Blattean colour is died with worms which come out of the grain of Cockle, out of whoſe bloud is produced a moſt curious colour, not black, as ſome think, but a bright purple or ſcarlet. To which the Book *de natura rerum*, *& Gualter de Conchis* do aſſent. The worms of the belly ſome call Blattæ. *Cardanus* in one place calleth the worms that breed in meal or bran, Blattæ. *Gaza* interprets the word τερέδους, as alſo προσωκείδας, *Blatta.* But the proper and right

Name. name thereof is σίλφη; according to *Pollux*, τίλφη; as alſo according to *Lucian*, deriding a man that was no Scholar, yet bought many books. The Italians call it *Blatta*, and *Tarma*; the Hetrurians *Piattela*; the Germans, *Wibell*, *Brottworme*, *Brottkarfaer*, *Malkaefaer*, *Springwibell*; they of Norimberg call one ſpecies of them by way of ſport, *Schavahen*, becauſe it cannot endure cold, as *Cordus* writeth; the Illyrians, *Swinie*; the Polonians, *Molulowy*; the Hungarians, *Moly*; the Spaniards, *Ropa cova potilla.* Now the Blatta is an Inſect flying in the night, like to a Beetle, but wanteth the ſheath wings.

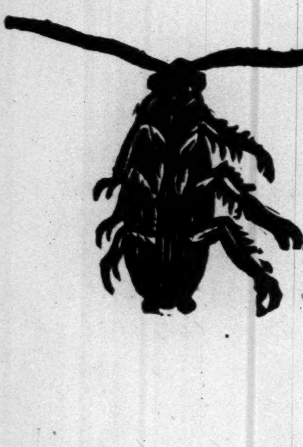
There are three ſorts of Blattæ; the ſoft Moth, the mill Moth, and the unſavoury or ſtinking Moth. *Freigius* divides them altogether falſly, confounding the ſoft and the ſtinking Moths one with the other, and making the προσωκείδας to be the third ſpecies of them, ſeduced as it ſeemeth by *Gaza*'s interpretation. That all of them when they are old do ſhift their skin; both *Ariſt. hiſt.* 8. *c.* 17. and *Pliny l.* 11. *c.* 27. do affirm. All the males are ſuppoſed to have wings, but the females certainly have none; they alſo are leſs, thoſe more bulky and big-bellied. All of them (but the ſtinking) run very ſwiftly, and die with cold. The male is ſoft, the female of colour more black, it hath a ſmall head, whereout come two long cornicles, every waies movable; the breſt, together with the ſhoulders orbicular; in the body it hath ſeven inciſures; the wings are of the ſame colour with the body, it ſeldom flies, but (as the Oſtrich doth) by help of the wings it doth run very ſwiftly; it hath a forked tail like a pair of Barbers cizzers; it hath ſix feet. It lives about Privies or Jakes houſes, ditches and ſteamy foggy places, for the moſt part they are ſomewhat like the field Kricket, but of a more compact body, and with far more ſlender ſhanks.



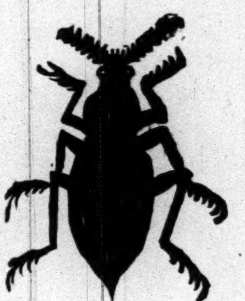
In the Ship called the *Philip*, (which that noble other Neptune, Sir *Francis Drake*, took laden with ſpices) there was found a wonderful company of winged Moths, but ſomewhat bigger than ours, ſofter and of a more ſwarthy colour. I have heard by many men of good credit, that there was one of theſe ſoft Moths found and taken in the top of the roof of the Church at *Peterborough*, ſix times greater than the common Moth, which did not only pierce the skin of thoſe that ſought to catch it, but bit ſo deep, that it did fetch bloud in great quantity; it was about a great thumbs breadth in bigneſs and length, and being ſhut in between two wals, yet after two or three daies got forth no man knew how.



The Mill or Bake-houſe Moth, I have ſeen: the Greeks call the female (if I am not deceived, becauſe it had no wings) μυλοικὶς, μυλικὸ, μυλαεὶς & ἀρτοκοπείων: it is longer, thicker, and of a more ſhining black colour than the ordinary ſoft Moth, with a little forked mouth placed as it were under its belly; the cornicles like to the firſt, little hollow eyes, or rather eyeholes, the breaſt fourſquare, with the four foremoſt feet faſtned to it, the hindermoſt to the belly; above the ſhoulders appear as it were little wings, though they are not ſo indeed; the reſt of the body ſomewhat thick, cut all over round about, circle or orbicular wiſe; in the ſides reſembling the form of a ſaw, the tip of the tail and a fork growing on each ſide is ſomewhat like a Trident: theſe Moth Krickets take up their abode in warm places, as ſtoves and bake-houſes, and ſuch like; let them be never ſo hungry, they will ſcarce indure to come into the light; or if they be compelled ſo to do whereby to get ſome food, they betake themſelves into the dark again with what ſpeed they can, or elſe hide themſelves in duſt that they may not be found.



The third ſort is ſo unſavoury, and carries with it ſuch a ſtinking ſmell, that from the ſame it is called of the Greeks σίλφη βδεά, ϗ βδεῦσα; of the Latines, *Fœtida Blatta, i. e.* the ſtinking Moth; it hath thighs ſharp with prickles, as *Pliny* deſcribeth it, the which mark of diſtinction, if he had not expreſſed, perhaps this kinde of Kricket had not been known, or ſeen by me. For the black Beetles (eſpecially the hairy ones) they are altogether of the ſame form, only the tail taken off. It is of a pure black gliſſening colour, very ſlow paced, as no creature the like; the body ſo framed and ordered, that you would ſwear it were winged and had ſheath wings, nevertheleſs none of them have any wings, no not the male it ſelf amongſt this ſort of them, (what ever *Pliny* dreameth to the contrary) it hath thin ſlender long ſhanks; remains in deep cellars, and is a retainer to the Jakes; it creeps very ſlowly, but at the leaſt glimpſe of light, and whiſper of talk, ſhe hides her ſelf; a ſhamefac't creature certainly, and moſt impatient of light, not ſo much for its ill favouredneſs, but the guiltineſs of its conſcience in regard of the ſtink it leaves behinde it, and of its ill behaviour: for it frequents baſe places, and digs through other mens wals, and doth not only annoy thoſe that ſtand near it, but offends all the place thereabouts with its filthy ſavour. The mouth of it is forked, the back covered (as it were) with a ſheath wing, ſo ſolitary a creature that you ſhall ſcarce finde two of them together. Whether it be begotten of putrefaction, or otherwiſe generated by the commiſtion of male and female, is not certainly known.



About *Francford* near the River Main they are frequently ſeen, as alſo in ***London*** in Wine-cellars, and dark dungeons; the other ſpecies are more frequent in Bake-houſes, and warm places. The ſtinking Beetle ſome confound with the ***Cimex*** or ***Wall-louſe***, a creature of the like quality; but not rightly. The inhabitants of ***Peru*** have certain creatures which they call ***Araners***: ***Serius*** thinks them to be Butterflies. They are of the bigneſs of the Kricket, they go forth a great many of them together in the night time, and all that is in the houſe almoſt that is ſoft they nibble about and eat it. *Lib. Navig.* Butterflies I cannot ſay they are, becauſe they gnaw, and do not ſuck with their Promuſcis; I would therefore either make them to be Krickets, or ſome new kinde of Moth, or ſome creature mixt and made of both. In an Epiſtle of a certain learned man ſent to *Geſner*, there is a deſcription of another kind of ſtinking Moth. There is ſaith he a certain ſtinking flying Inſect in ***Hungary*** that ſtinks beyond meaſure; I ſhould call it a ſtinking Graſhopper, but that it is more like the Kricket. In Winter it deſires the light, in Summer it ſhuns it; when it flies it makes a kinde of a terrible horrid noiſe, leaving a moſt noiſome ſtink behinde it. Some there are when the air is infected, carry this creature about them as ſome ſecret remedy, and adore it; nay ſome of them, which a hog would ſcarce do, will ſwallow them, ſo afraid are they of the Plague, and ſo deſirous to uſe means againſt it. They are bred in wals: where they are moſt frequent there grow as they ſay the moſt generous wines, & I have found it to be true by experience. ***So far Epiſtle.***

All the younger Moths are whitiſh, but at their full growth of a bright red or tawny. The ſtinking are as black as a coal.

Divers Authors do ſpeak of four other ſorts of Moths, *viz.* the Venereal, bred in the genitals of men; the Bee Moth, the Cloth Moth, and the Library or Book Moth, from eating of the Books; but none of theſe, but the Bee Moth agreeth with the deſcription of the Moth: but that neither is ſo ſtinking as the one called βδεἰσον, or ſo ſoft as the others before deſcribed; but of a middle nature, rather pouldred with meal than anointed with oyl. Of the reſt of theſe we ſhall ſpeak more fully when we come to ſpeak, God willing, of the Lice and Moths called *Tinea*.

Much variety of opinion there is among the learned of the colour of the Blat Moth, or the Blattean colour. For if theſe Inſects (of which we have now treated) are the Blattæ truly ſo called, why ſhould not the black be the Blat colour, rather than red purple colours? Certain it is, it is that the ***Bizantine*** Blatta yeelds a purple colour, as that of the worm Cochineal doth a red or ſcarlet; either therefore all colours may be called Blattean, or elſe this laſt of ours is not one. Indeed I wonder at the boldneſs of ***Turnebus*** and ***Thyleſius***, which will have that of the worms to be the Blattæan, when as they are of no Author called Blattæ; but rather properly it ought to be counted a Scarlet red. The Blattæan colour therefore, to ſay the truth, is the Purple, notwithſtanding our Blattæ ſend forth no ſuch kinde of liquor; but are fliers of the light, naſty, cruel, rough, theeving, living of nocturnal depredations after an infamous manner, whence ***Servius*** cals them ***Piratas noctu navigantes***, night Pirats.

Their Uſe.

Theſe little creatures, although they are hateful to nature it ſelf, to Men and Bees, yet God hath endued them with ſundry vertues, in which they excell the Blattæ Bizantine. For take off his ſhell or nail, which is there between its head (called *papaver*) and its neck, what doth the belly contain but the ornament to dye withall, and to delight the eyes with their colour? And be it ſo that Princes and great men will buy it though never ſo dear, and by the greatneſs of the price make it only fit for Kings to wear; yet notwithſtanding when you have heard the virtue of theſe Blattæ, otherwiſe ſo contemptible, you will ſay they are far more to be eſteemed than purple. For they are wonderful good for the pains in the ears, taken after this manner: Take twelve Blats with their wings cropt off, of old wine and honey *ana* ℥ j. and half the rind of a Pomegranate, of the juice of an Apple 6 ſpoonfuls, boyl them well in a new pipkin till the rind of the Pomegranat be made limber and ſoft; then beat them all together, which done, add unguentum Syriacum ℥ j. of Tarre ℥ j ß. the juyce of 4 Onions preſſed out what may ſuffice; beat all theſe together and lay them by for uſe: let this decoction be dropt into the ears, and a lock of new ſhorn wool ſtopt in warm. *Galen ſec. loc. l.* 3. Experience witneſſeth that the ſoft Blats boyled in oyl and put upon Warts, are ro good effect. The mill Blat, the head being taken off and the body bruiſed, doth cure the Leproſie, as ***Maſa*** and *Pithen* have left in their *Receipts.* The fat of the ſtinking Blat, when the head is off, beaten with oyl of Roſes, *Galen* out of *Archigenes* ſaith is very good for the ears; but the wool in which they put it, muſt by and by be taken out: for that fat ſubſtance will quickly breed worms. Others write that two or three of them boyled in oyl, bruiſed and put into a little linnen bag and applyed, are very good for the ſame purpoſe; their entrails beaten with oyl or warm water are likewiſe good for the ſame, being dropped into the ears. *Pliny* ſaith, *l.* 2. *c.* 36. that from the two firſt the heads muſt be pulled off before they be uſed in medicine; from the ſtinking, the feet and wings, or rather that cruſt or ſhell like wings on the back, that being more hard, and more poyſonous; but it hath no wings. The ſtinking Blattæ moreover mingled with oyl or pitch, are ſaid to cure Ulcers, otherwiſe incurable; as alſo Wenns and Swellings in the neck, Botches, being layed on for 21. daies together: they cure alſo the Scab and Fellons, bruiſed and feſtered Sores, the wings and feet being firſt taken off. We diſdain to hear of theſe things, yet truly *Diodorus* (as *Pliny* ſaith) reports that they have helped the Kings-evill, and difficulty of breathing, mixed with Roſin and Honey: the moſt learned thought fit to keep the aſhes of them in a horn box for this purpoſe, or the powder of them to put into the body by way of Clyſter. *Cardan* ſaith they take away pains; but what pains, or what kinde of Blattæ ſhould do it, he tels us not. The *Phrygians* and *Lycaonians,* anoint thoſe with them that have a ſtoppage in the Matrix. *Pliny l.* 30. *c. ult.* Laſt of all they may ſerve in ſtead of Caſtoreum for an *Antiballomenon;* and *Galen* uſeth them in ſtead of the *Bupreſtis.*

Remedies againſt them.

Now if you would have a remedy againſt themſelves, caſt but a handfull of Flea-bane (the Greeks *Maſcula* is the Latines *Cunilago*) and all the Blats will gather together to it. So called in *Rome Blattaria* or the Blat-herb. Nature hath provided a remedy againſt them for the Swallowes; they are wont commonly to ſpoyl the Swallowes eggs, wherefore they uſe to fence their young with Parſly or Smallage, whereby the Moths are forced away from their neſts. The which might be thought to be the figment of *Ælian,* but that *Zoroaſtes* in his Geoponicks doth aſfirm the ſame. The *Upupa* or Houpe incloſe their neſts with earth flax againſt Moths. The Chough uſeth the herb Vervin to the ſame purpoſe. If they be anointed with the oyl of Spike, it works the like effect, as *Joach. Camer.* reports. That they may be rid out of Gardens, let us hear *Diophanes* his advice; Get the Guts of a Ram freſh killed and full of dung, bury it in the earth where many Moths uſe, and caſt the ground lightly upon it; two daies after all the Blats will gather to it; the which at your pleaſure you may carry other where, or bury them deep enough in the place, that they ſhall not be able to riſe again. If you would preſerve your Bees from them, uſe ſharp fumigations, or ſet lights near to the Hives, or elſe anoint the props whereon they ſtand, that they may not get up.

CHAP. XIX.

Of the Bupreſtis or Burncowe, and the Cantharides.

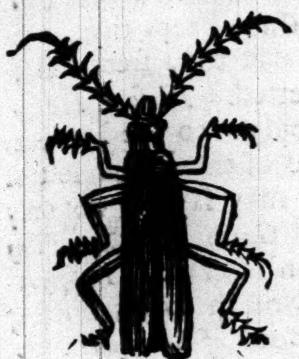
MAny of the Naturall Philoſophers have made mention of the *Bupreſtis,* but ſo little, that they ſeem neither to have touched either their form, or qualities, no not ſo much as their true Name. For *Ardoynus* cals it *Bupreſtis*; *Vigelius, veter. l.* 3. *c.* 15. cals it *Vulpeſter* or *Bulpeſter*; and in the 78. chap. *Buſtrepis* moſt corruptly. *Silvaticus,* if any other chief at Barbariſm, cals it *Buſtaſaris, Bubliſtes, Bubeſtis,* ſo corrupted was the Latine tongue in theſe blinde times, that Barbariſm had wrought a general confuſion in all places.

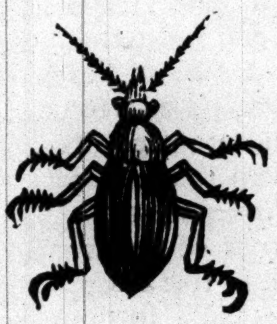
Now the true name of it is in Greek, βούπρησις, παρὰ τὸ πρῆσαι τοὺς βοῦς, *quia boves rumpit,* becauſe it ſwels Oxen; *Nicander* in *Alex.* derives it *ab incendendis bobus,* from burning or enflaming the bowels of beaſts: ἢ ϗ που δαμάλεις ἐειγάστορας ἄλλοτε μόσχους, &c.

When cowes or calves are ſick, and bellies ſwell,
They' ave eat Bupreſtis keepers know full well.

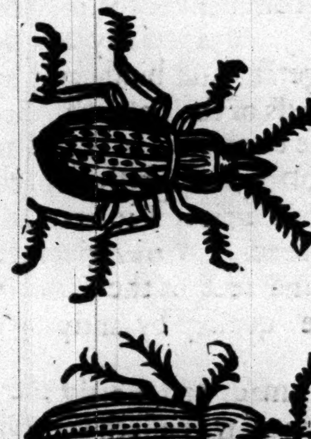
For firſt of all by their acrimony they enflame the belly of cattle, upon which followes a tumor, and a feaver, and a kinde of a hot tympany, by which in the end the bowels are burſt. By other, as by *Heſychius* in like manner βυθάζειν, ϗ βύβωσις, which is more rightly aſcribed to that kinde of red little Spider, found in paſture grounds, which doth uſe to bite them. In Engliſh it is called a *Blain-worm,* or *Troings,* which being eaten by cattel doth produce the like ſymptomes: the Latines retain the Greek name of *Bupreſtis*; of the Germans it is called *Geuch, Gach, Knoelſter, Gualſter, die Grunen, Stinckhenden, Wildenwentde, Renkaeſer*; of thoſe of Heidelburg, from its ſwift running, *ein Holtzbuck*; in Italian, *Bupreſti*; in Spaniſh, *Arebenta buſi,* if *Mathiolus* ſay true. Bnt I for my part, ſomewhat boldly, though not improperly, do adventure to call it by a new name in Engliſh, *Burncow,* or *Burſtcow.*

Pennius reports that he light upon one about *Heidelberg*, and a true one indeed, who deſcribes it thus: It appears, ſaith he, both in ſhape and quality to be a kinde of Cantharides, both for its force and properties, (if *Galene*, *Ægyneta*, *Phavorinus*, *Aetius*, *Plinius* and *Avicen* are to be believed) but of a longer body, the outer ſheath wings of a yellowiſh green, or rather of a golden yellow; the thighs alſo are longer and thicker, the eyes globous, and prominent, out of the forehead near the eyes come forth two long horns, joynted; the head ſmal; the mouth is wide, hard, ſtrong, forked, having teeth with which he doth cruelly wound and bite; the belly not round, but very long; a great foe to the Beetle and the Lizard, aiming at their bellies (as being the ſofter and more penetrable part) which preſently ſhe gnawes through, and when ſhe fears to be overcome or caught, preſently ſhe retreats and hides her ſelf: ſomewhat ſtrong of taſte (as *Actuarius* ſaith) upon the palat. *Aetius* makes it to have a ſmatch of Nitre both in taſte and ſmell. *Cornarius*, *Lonicerus*, and *Cordus* being deceived by the ſtrong ſmell of it, could not forbear to ſay it was the ſame with the *Cimex* or noiſome Wood-pews, and called it accordingly *Knolſter*, and *Quelſter*. It feedeth on flies, cankers, worms, and other the like Inſects, provided ſhe kill them in fight, for thoſe that dye of themſelves or are kill'd by others, ſhe will not touch: when ſhe hath filled her ſelf with the carkaſſes of the ſlain, what ſhe leaves ſhe drawes into her hole, and when ſhe is hungry again feeds on them. Other ſavage qualities of this little creature let *Peter Turner*, and *William Brewer* (Phyſicians for learning and integrity of converſation ſecond to none) relate, who together with *Pennius* at *Heidelberg* did obſerve its life and manners. *Bellonius* in his deſcription of Mount *Athos*, expreſſeth the true *Bupreſtis* thus: It is (ſaith he) a little winged flying creature of a moſt ſtrong ſent like to the Cantharides, but greater, of colour yellow or clay coloured; of ſuch exquiſite poyſon, that the cattle when they have fed there a little while, do die of the graſſe infected with its contagion. It hath its abode amongſt the herbs called Succory, Flea-bane, Nettle, called *Vouprisſis* by the inhabitants of Mount *Athos*. Thus far *Bellonius*. From whence we may truly collect that both deſcriptions of them do agree, as concerning their ill ſavour, their bigneſs, qualities; only they differ a little in kinde and colour. For we have not ſeen any of them yellow, unleſs I may call a greeniſh gold colour yellow. Neither indeed is it fit to ſtand ſo much upon the outward ſhape or colour; but admit that according to the diverſity of the climate, they may both receive ſome alteration (as it is in men) and yet be the ſame in ſpecies. Another Bupreſtis of the right ſort I have ſeen, the body a little ſhorter, and broader about the belly, the tail more piked, the head ſmall, the eyes ſtanding out, the mouth gaping, and forked, the ſheath wing for the length of it, chamfered; of a full bright graſs and gold colour; the legs but ſix in number, long, proportionable to the body. The Prints of *Mathiolus* and *Grevinus*, beyond the nature of the thing, and the experience of their own eyes, expreſs eight but more ſlender, (conſidering the bigneſs of its body, than the firſt ſort of Bupreſtis) and blackiſh, the cornicles alſo but half ſo big, and ſmaller; it equals the firſt in ſwiftneſs of pace, goeth beyond it in noyſomneſs of ſavour, yea in this it excels the *Cimex* or ſtinking wood-lowſe her ſelf, and all wilde creatures. It hunts after Flies and Cankerworms, wherewith it is fed; ſo vehement ſtrong it is, that it will kill the moſt deadly Spider that may be. *Pliny* ſaith, that in *Italy* this creature is ſeldome found, but now (as we have reaſon to believe *Marcellus Virgilius*) they are more common than the ſtate of the countrey can well bear,





But that they are indeed venomous by nature, and very noxious to man and beaſt, as *Aetius* witneſſeth (for they kill both by their whole ſubſtance) doth appear even by this, that thoſe which ſhould give them to any one to drink, were as *Budæus* ſaith in his *Pandects*, to ſuffer death. For ſo the Law runneth: *Qui Bupreſtem, vel pityocampen, tanti facinoris conſcii, aut mortiferi quid veneni ad necem accelerandam dederit; judicio capitali, & pœna Legis Cornelia afficiator.* *Whoſoever ſhall give a Bupreſtis or a Pine-tree Worm to drink, to kill any body, or any mortal poyſon, being found guilty of ſuch wickedneſs, ſhall ſuffer death by the Law of* Cornelius. I have ſeen about *Heidelberg* two Bupreſtes like Scarabees, the one of a golden green, the other of yellowiſh black. The one like to the former which we have deſcribed, but ſomewhat bigger; the outer wings all over ſtreaked with golden lines, and ſhadowed with a little green; between the lines riſe up boſſes curiouſly wrought; very ſwift of pace according to the common nature of that Inſect. But that which is of a yellowiſh black was ſent unto me from *Vienna* by *Jacobus Quickelbergius* of *Antwerp*, who hath been a great help to me to enrich this hiſtory. The colour excepted, and that it was a little bigger, and had four horns, it altogether reſembled the laſt we deſcribed.



The Uſe.

Although theſe Inſects are ſuch as hath been ſaid, that they fret with their acrimony; that fretting they enflame, and with their poyſonous inflamation cauſe extreme thirſt, and a horrible ſwelling, inſomuch that the very skin is burſt; yet hath Dame Nature made them notwithſtanding very wholſome, which Art afterwards hath prepared for medicine, before they be put in uſe. *Plinius* and *Ægineta* diſpute whether they ſhould not be prepared as the Cantharides. *Dioſcorides* dries them in a ſieve over hot embers, and ſo layeth them by. *Galen* ſteeps them in vinegar. *Hippocrates* commands to take off their wings and feet. And becauſe they fret, exulcerate, inflame and ſwell up, and do ſtrongly attract and heat the parts ſo fretted. *Dioſc. l. 2. c. 59.* ſaith, that being mixt adviſedly with fitting ingredients, they may be applyed to the Leprone, Cancer, and wilde Tetters. My opinion is, that they may be uſed in ſtead of the bigger ſort of Cantharides, rather than ſome kinde of Blattæ (by *Paulus* his leave, if I may ſay ſo) not only becauſe they are ſomewhat like in ſhape and figure, and in virtue alſo, as *Galen* writeth. *Pliny* ſaith that the Bupreſtis by way of corroſive doth take away Ringworms in the face. *Hippocrates* doth much commend them in divers diſeaſes of the womb. For ſo he writeth in his Book *of the Nature of Women*; and in his Book *of the Diſeaſes of Women*; and in his Book *of Barrenneſs.* For the hardneſs of the womb, to emollient juices and fat add a Bupreſtis, and uſe it. To drive out the Monethly Flowers and ſecondines, prepare half the body of a Bupreſtis (whether great or ſmal) with twice as much pulp of a Fig, and apply it; for it purgeth the womb, and inflateth it, and is a ſpecial remedy to procure the Flowers when they are paſt hope. Sometimes he applies only a Bupreſtis (if it be a great one) ſometimes making a ſoft peſſary, he takes ten, and adds to them a little ſawcer of oyl, and mingles with it Wine, *Æthiopian* Cumin, *Seſeli*, and Anniſeed, of each alike parts, and whileſt they are hot he makes a peſſary of them and uſeth them to the Matrix. In the ſtrangling of the womb, when the fit is over, the body firſt purged, *Hippocrates* makes a Medicament with a Bupreſtis, and thruſts it into the Matrix. Alſo for a Schirrous of the womb he uſeth a Bupreſtis, but warily and with diligent conſideration; for he puts it in like a Suppoſitory for one day, and when it doth much vex the patient by corroding, he bids to take it forth: moreover he compounds a Bupreſtis, Myrrhe, and Elaterium, and puts it in. So he doth alſo to bring forth a Mola, *Gal. l. 1. κτ' τόπ' cap. 1.* out of *Archigenes*, deſcribes a Medicament of Bupreſtes, with Vinegar, Crowfoot, and Wakerobin root, againſt falling of the hair, Leproſie, Elephantiaſis, *&c.* the cure whereof you may eaſily finde there.

The ſigns of a Bupreſtis being drank.

Now as I have declared hitherto its profitable qualities, ſo (leſt I ſhould tranſgreſs the bounds of hiſtory) I ſhall open the terrible effects that this poyſonous creature cauſeth in man and beaſt; if a man ſwallow a Bupreſtis, 'tis all one as if it had been a Cantharides: the body ſwelleth, as if it had a tympany, much wind creeps between the skin and fleſh, which hapneth no doubt by the flux of humours melted by the poiſon, and the vapours elevated upwards. The lips are of a ſtrong colour, to wit, of a dead violet. In the mouth there is the like poyſonous taſte; the ſtomach, belly, and guts do ake extremely, the urine is ſtopt, the body is ill all over, as alſo the head and brain are ſenſible of it.

The Remedy.

A remedy of this is Salt-peter, taken in Wine and Oxe gall. Uſeful to that purpoſe is womans milk, ſuckt out abundantly, and in defect, cowes, goats, or ſheeps milk. Womans urine drank, and vomited up again; but before a vomit they ought not be given, becauſe by that means the Feaver would be more ſharp. *Dioſcor.* Firſt of all therefore of good ſtore of Wine ſodden, or with oyl of Myrtle Bacon lard, or fat Pork broth, or with good ſtore oyl of Olive, or boyled Wine a Vomit is to be made. New Wine drank freely, is held to be a ſpecial remedy againſt the Bupreſtis. *Galen* and *Ardoynus.* *Pliny* commends Nitre with water, or Laſerwort, *Aſa dulcis*, Wine and Honey, or Bezoin diſſolved in warm water; or take red Nitre 4. drams, and in warm water or Poſca cauſe Vomit. After vomit there muſt be means uſed for purgation, afterwards uſe dry Figs (as *Galen* preſcribeth) or a decoction of them in old generoſe Wine when the fit begins to bate. The Thebane date is preſcribed to eat alone, or bruiſed in ſweet Wine or womans Milk: all kinde of Pears, and oyl of bloſſomes of Apples, are much commended for this uſe. *Nicander* commends wood-pears, (for that I think he means by ἀχράδας) and eſpecially Myrtle berries) following the authority of *Dioſcorides.* For that they do refrigerate and bind, and by that means do aſſwage the hot nature of the Bupreſtis, and help the weakneſs of the ſtomach. But heed muſt be taken they be not eaten while the body is yet ſwoln, leſt the diſeaſe be increaſed by the poyſon being kept in. Some with good reaſon give 31. berries of bladder Nightſhade, and with Almonds the make Almond-milk, together with the decoction of Lettice, Violets, Borage, Bugloſs, garden Nightſhade, Plantain, Raiſins, and the great cold Seeds. *Aetius* gives the root of Scorpion-graſs in ſweet Wine to drink. Many extoll the wings and feet of the Cantharides for an Antidote againſt the Bupreſtis, but either it hath an oppoſite quality by antipathy, which makes good that opinion, or elſe we may ſuſpect it to be falſe.

L. 2. de Antid. in Alex.

l. 2. 78. Ctenate.

If an Horſe or an Oxe eat one of theſe flies, preſently he ſwels, growes mad, and ſhortly after burſteth and dieth. So *Ælian. 6. de Anim. c. 35.* and *Hierocles* a Greek writer witneſſeth it. He bids to binde the horſes head, and to open the veins about his noſtrils, that the bloud may run forth of his mouth, and to rub it with Coleworts, and give him Fiſh-pickle and Oyl: and *Vegetius* likewiſe almoſt in the ſame words: If a Horſe or an Oxe eat a Bupreſtis with the graſs, his belly will inſtantly ſwell, he is inflated all over, he refuſeth his meat, and he often and by little and little ſends forth his dung.

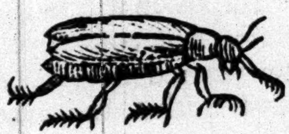
To cure this, ***Abſyrtus*** and ***Vigetius*** preſcribe one and the ſame remedy: preſently get upon the Horſe and cauſe him to gallop as faſt as he is able, afterwards let him bloud a little in the roof of his mouth, and let him ſwallow the bloud as it runs forth, chewing it in his mouth; then keep him continually walking; let his diet be wheat ſteeped in ſweet Wine with Leeks given him with a horn in Wine warm well beaten with Raiſins. Some, as *Praxanus* taught them, pour Oyl into the noſtrils of the Oxe, *l.* 17. *c.* 17. To Goats that are ſwoln with the Bupreſtis, apply Bacon-lard, or pour the fat broth of it down their throat, ſaith the ſame Author.

The Cynopreſtis ſeems to be the ſame with the Bupreſtis, for that works the ſame effects in Dogs as this doth in Cattel: or if it be a different ſort of creature from this, I confeſs ingenuouſly I have not met with it.

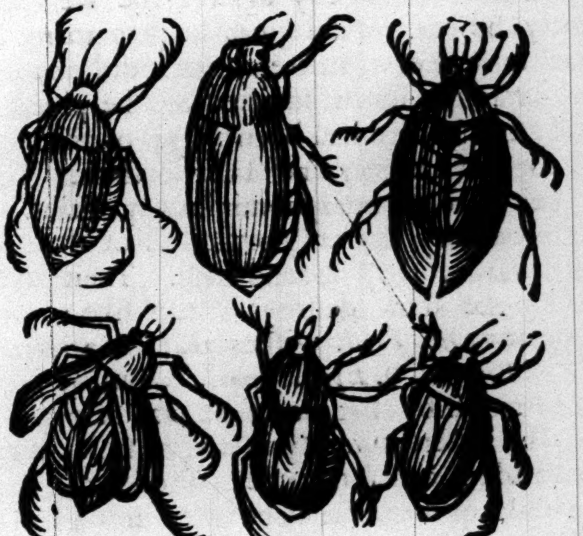
CHAP. XX.

Of the Cantharides, or Spaniſh Fly.

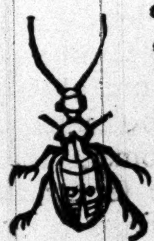
I Know not what the reaſon was that the Cantharides above the reſt ſo well known, of ſo great uſe in Phyſick were omitted by ***Pennius*** and ***Geſner.*** Which task notwithſtanding I ſhal willingly undertake, and thus I begin their Hiſtory. The word κανθαρὶς in Greek is the ſame in Latine; in French, it is ***Cantaride***; in Italian, ***Catarella***; in Spaniſh, ***Cubillo***; in the German Tongue, ***Grune, Keſer, Goldkeſer***; in Low Dutch, ***Spaenſche, Vlieghe***; in Engliſh, ***Cantharides,*** or ***Spaniſh Fly.***



Of the Cantharides two ſorts have come to our knowledge, the one greater, the other leſſe. Of the greater ſort there are ſome thick and long, taken in wheat; and fat likewiſe as the Blats are, drawn with variety of golden lines, which in the wings run athwart, and thoſe are accounted of the beſt uſe in Phyſick. Others are leſſe and lean, hairy, called the innermoſt, not ſo fit for medicine. Of the greater ſort alſo not all are of a glittering green, but ſome of them of a ſad red, but all of them of an inexpreſſible ſplendor, and very pleaſant to the eye.



The ſmaller Cantharides ***Thomas Decat*** firſt of all acquainted me withall, they ſeem to differ a little in ſhape and bigneſs; but have all the ſame virtue and original. Of theſe leſſer, the firſt hath a long forked head, with black eyes ſtanding out, the cornicles long and black, the wings coming forth of the middle of the loins; the which are marked with two ſilver coloured ſpots, and a few other white ſpecks. They are commonly found in Kexes, or Aſſe Parſly in the ſummer time. It hath feet and thighs very ſlender and long; of colour virmilion inclining toward a purple. The ſecond is of the ſame colour with the firſt, but only that the eyes and cornicles ſeem to be green. Of the third the head and ſhoulders are not to be diſtinguiſhed, of a ruſty colour, and the eyes as black as pitch; the wings of like colour with the head, but glittering with golden ſtreaks, the feet black and ſhort. The fourth is like the third, but only it is rather in colour of graſs green, not ruſty as the other: otherwiſe, except the bigneſs (for it is the leaſt of all) it doth not differ. As well the greater as the leſſer of theſe Cantharides, do not come of living creatures, but of dry and moiſt putrefaction. The race of Cantharides is bred in wheat and corn fields, and in fig-trees alſo. Τίκτεται γὰρ ἐν τοῖς τῶν πυρῶν ληίοις ϗ ταῖς ἀχέρδοις, ϗ ταῖς σύκαις προσιὸν τὸ τῶν κανθαρίδων φῦλον: as ***Ælian*** hath it word for word out of ***Ariſt.*** in his 9. Book and 39. Chapt. They are bred alſo of the ſponge of a Roſe called ***dens Caninus,*** and of the Catterpillars which are found in Fig trees, Poplar, Pear tree, Aſh, Olive, Roſe trees; for in all theſe there are worms bred that are the originals of Cantharides, but in the white Roſe they are leſs effectual. The Cantharides couple and generate likewiſe, but uot a creature of their own ſpecies, but a worm only; they feed upon pulſe and grain, but eſpecially of wheat, and thoſe which are ſo fed are accounted moſt fit for Medicine: they ſmell like Tarre, taſte like Cedar, as ***Nicander*** reporteth.



Their virtue conſiſts in burning the body, cauſing a cruſt, or (as ***Dioſcorides*** will have it) to corrode, cauſe exulceration, and provoke heat; and for that reaſon are uſed mingled with medicines that are to heat the Lepry, Tettars, and Cancerous ſores.

And in being mixt with Cecots or fit plaiſters, they do cure deformities of the nails, cauſing them to fall off. They are uſed in medicines for Corns on the feet or hands.

Some anoint the places where the hair fals off, with Cantharides bruiſed and liquid Pitch, the skin being prepared with Nitre: they are good for Cauteries, but care muſt be had that they do not ulcerate to deep; then ſome command to annoint thoſe ulcers made, with the heads, or with the gall or dung of Mice mixt with Hellebore and Pepper. Cantharides mixt with quick Lime, cure Botches, as if you ſhould cut them off with a razour. Some uſe to caſt a little of them into Medicaments to provoke urine. But there is a great queſtion of it, becauſe they are poyſon drank, in reſpect of the bladder that they afflict with perpetual torment. But there is no queſtion but in oyntment they may do good with the juyce of wilde Vine, or with Sheeps or Goats ſuet. Some of my Maſters put only their wings and their feet into Medicaments that provoke urine. We, ſaith *Galen*, are wont to caſt in the Cantharides whole, and we judge thoſe to be the beſt, that are found in wheat, and have a yellow girdle running athwart their wings to adorn them, *L. 3. & l. 11. de ſimpl. fac.* alſo put under, they mightily provoke the terms, and put to medicaments for the Dropſie, they are a very good antidote againſt it; as not only *Hippocrates*, and *Dioſcorides*, but *Galen*, *Avicenna*, *Rhaſis*, *Pliny*, and the beſt writers do teſtifie amongſt Phyſicians. I cannot here praiſe ſufficiently the excellent uſe of them, with Leven, Salt, and Gum Ammoniac, to divert Catarrhes, to cure the Gowt in the feet and hips; by drawing the matter that lies deep, from the centre to the ſuperficies. Alſo they are good againſt the venome of the Salamander, as *Pliny* teacheth *l. 29. c. 4.* Alſo in ſome caſes and in ſome compoſitions, they are good for ſuch as want erection, and do promote venery very much. But as rightly mixt and exhibited in due proportions they are good for ones health, ſo being not rightly mingled and given diſorderly, they cauſe cruel ſymptomes and ſometimes death. When *Anno* 1579. I ſtaid at *Baſil*, a certain married man (it was that brazen bearded Apothecary that dwelt in the Apothecaries ſhop) he fearing that his ſtopple was too weak to drive forth his wifes chaſtity the firſt night, conſulted one of the chief Phyſicians, who was moſt famous, that he might have ſome ſtiffe prevalent Medicament, whereby he might the ſooner diſpatch his journey. But when it was day-break almoſt, there followed a continual diſtending of the yard without any venereous deſires, and after that bloudy urine, with inflammation of the bladder, and the new married man almoſt fainted away, all Antidotes profiting nothing a great while. I remember that the ſame thing hapned to a Noble man of *Francfort* in my remembrance, whom when an illiterate Phyſician thought to cure him of the Dropſie by giving him Cantharides, one in number inwardly, he killed him with lamentable torments. I have a ſingular remedy againſt the weakneſs of the Genital part, which when I uſed it indifferently, however it did great help to many Noble men, and no hurt, (who generally are more ſtudious in venereous matters) yet it did one amongſt the reſt ſo much harm, that after venery (which he was too much addicted to) he piſſed bloud continually, and ſwounded away frequently; truly unleſs there had been plenty of milk at hand, this *Venus* bird had died and ſuffered deſervedly for his Lechery and laſciviouſneſs. Thus far for their Phyſical force, now we ſhall paſs to their deadly and ignominious qualities. They are held to be amongſt the number of poyſons moſt deadly, not only by reaſon of their corroding and inflaming, but by reaſon of a putrefying quality they abound with. Their juyce entring into the veins either from the ſtomach, or by the skin, deſtroys a man like to poyſon. Therefore *Ovid* when he wiſhed miſchief to his enemy, *lib. Triſt.* wiſhes *that his parents might give him the juyce of Cantharides to drink. Cicero ad Petum l. 9. Epiſt. famil.* Cajus *by the accuſation of* L. Craſſus *is ſaid to have taken Cantharides*: as if by that means he was reſolved to kill himſelf. *Gal. l. 3. de Simpl. fac.* writ thus: If they be taken inwardly in a very ſmall quantity, mingled with things fitting, they powerfully move urine, and ſometimes corrode the bladder: whence it is manifeſt, that all things that kill by a cold quality, if they be taken in a ſmall quantity they may nouriſh the body: but ſuch as kill by putrefying (as Cantharides do) not at all; ſince they are enemies to mans nature. *Coſſiles* a *Roman* Knight, well noted for his familiarity with *Nero*, when he was ſick of a dangerous Tetter, a Phyſician was ſent for by *Cæſar* to cure him, who gave him Cantharides to drink, and ſo killed him. *Pliny*. Alſo Cantharides were objected againſt *Cato of Utica*, (as the ſame Author ſaith, *l. 29. c. 4.*) as if he had ſold poyſon by open ſale, becauſe he ſet them at *60.* Sextertia. But when they are drank too largely, or applyed outwardly too long and too deep, they are wont to produce theſe ſymptomes. There happens pricking and pain in the bowels; which is extended from the mouth to the ſecrets, and to the loyns, and haunches, and hypochondres, and they ulcerate the bladder with a painful ulcer, and inflame the yard and the parts adjacent with a vehement Impoſtume: then they piſs bloud, and after that pieces of fleſh. Sometimes there followes a Diarrhoea and Dyſentery, ſwounding and dulneſs, and the minde is perverted, and there is nauſeating and heavineſs, and a frequent deſire to make water and go to ſtool; but almoſt it is in vain. They taſte a taſte of Pitch in their mouthes: all which ſymptomes are ſet down in *Dioſcorides l. 6. c. 1. Gal. lib. de Theriac. ad Piſon. c. 4.* and *l. 3. de Temper. c. 3.* and in *Rhaſis lib.* 8. *c.* 17. To thoſe that are ſo infected and affected, *Dioſcorides* firſt preſcribes frequent vomiting, then frequent Clyſters made with Nitre to cleanſe the guts; then to preſerve the bladder, he gives milk inwardly and flea-ſeed. And he will have their Clyſters made of other matter than at firſt, namely of Barley water, Marſh-mallowes, whites of Eggs, Muſcilage, of Linſeed, Rice-water, decoction of Fenugreek, Hydromel, fat Broths, Oyl of ſweet Almonds, Gooſe-greaſe, yelks of Eggs. Alſo he bids to give inwardly Cowes milk that is ſowre, Hydromel, kernels of the Pitch-tree, the great and

Signs and cure of Cantharides drank.

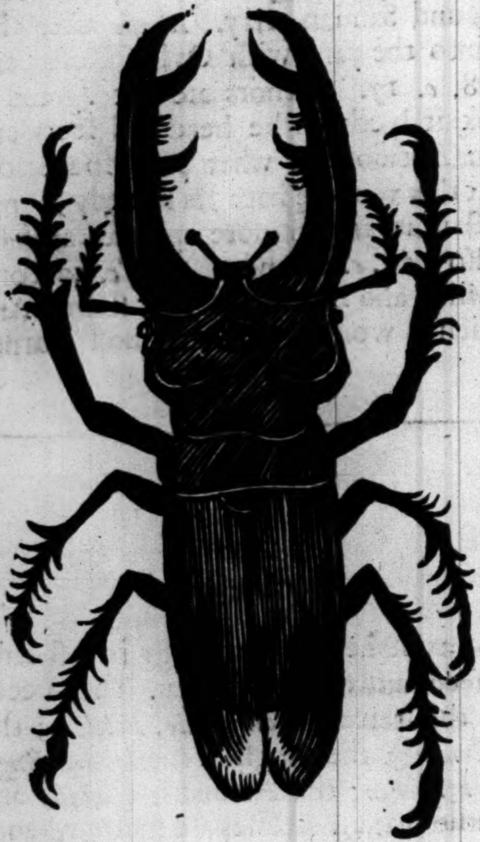
the ſmall, ſweet new Wine, Ducks greaſe, a decoction with Diuretick ſeeds, (namely the four great cold ſeeds) and decoction of figs with ſyrup of Violets. Oyl of Quinces is commended as the certain Theriack for this diſeaſe, as alſo oyl of Lillies, and Samian clay. *Rhaſis* after that Clyſters of fat Broth are caſt in, will have incoction made into the yard with Oyl of Roſes, and the ſick ſhall be put into a warm bath in a great Vat. *tit.* 8. *c.* 17. Authors are not agreed in what part the poyſon of Cantharides doth lie. Some think it lyeth in he head and feet, and others deny that; yet they all agree that the wings are an Antidote in what part ſoever the poyſon lyeth; and thoſe being taken off it is deadly; ſo that this venome hath its remedy joyned with it. *Plin. l.* 11. *c.* 35. *Lyrus* of *Naples* writes that Purſlain is an Antidote againſt Cantharides, which *Pliny l.* 20. *c.* 13. affirms of white Baſil: who alſo *l.* 23. *c.* 2. and 4. *l.* 28. *c.* 10. commends very much Vinegar of Squils, Oyl of Dill, Cowes Milk, and Broth of Goats fleſh. And thus much ſhall ſuffice for the Hiſtory of Cantharides, which I wonder that the moſt learned *Geſner*, and eſpecially *Pennius* overſlipt.

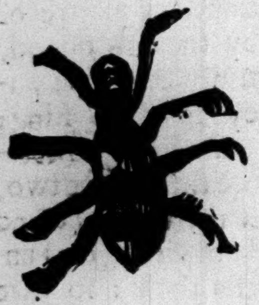
CHAP. XXI.

Of Beetles.

The Name. THE Beetle is an Inſect that may be called κολεόπτερον, as if he had his wings in a ſheath. It is bred of putrid things and of dung, and it chiefly feeds and delights in that. The Greeks call it κάνθαρον; the Tyrians, βυρρὸν; the Germans *Kaefer*; the Italians *Eſcuravaio, Pololero*; the French, *Eſcarbot*; the Polonians *Krewka*; the Illyrians *Krabak*; the Engliſh, *Beetle*, or *Bug*; the Northern Engliſh call it *Klock*; but the Southern, *Starkenbeken*; the Arabians, *Kanaſis* and *Kanaſes* by *Avicenna*. **Their Sex and Deſcription.** The Greeks all with one conſent, hold that all Beetles are males, whence one may eaſily underſtand the ſenſe of *Auſonius* his Epigram upon *Marcus* that was gelded. *Rhodiginus l.* 8. *c.* 5. *Antiq. lect.* renders it to us. Alſo the Ægyptians cauſed a picture of this creature to be made on the ſtatues of their Heroes, intimating thereby their manhood, that had no mixture of feminine weakneſs; for men muſt be valiant and manly, feminine puſillanimity is a great diſgrace to them. All Beetles caſt their skins, and they have no ſting: when you touch them they are afraid, and they leave off to move, and they grow hard. *Albertus* did vainly aſcribe to them four wings hid under a cruſty cover, for experience ſhews but two, very tender and frail, wherefore they have them ſhut up in a hard cover over them, to defend them that they may take no hurt by hard bodies. For the greateſt part of them either digs under ground, or bites rotten wood with their teeth, and makes houſes and neſts there: ſo that if they were not excellent well guarded, they could never keep themſelves ſafe from external injuries. When they fly they make ſuch a humming or noiſe in the air, that *Laertius* writ that the gods talk with men by theſe creatures. Of all plants they cannot away with Roſe trees, and they hate them as the deſtruction of their kinde; for they dye by the ſmell of them (as we read in *Geopas*) but on the contrary they take great pleaſure in ſtinking and beaſtly places.

I remember one was wont to cleanſe privies, when he came into an Apothecaries ſhop at *Antwerp*, and ſmelt the ſpices, he preſently fell down in a ſwound, which one of the ſtanders obſerving, he went and gathered up ſome horſe dung in the ſtreet and put it to his noſe, and ſo a man uſed to ſtinking ſmels was recovered by a ſtinking ſmell. Therefore it is no wonder if a Beetle (that we ſaid before was bred and fed with dung) being anointed with oyl of Roſes, be killed thereby; they are the words of *Clemens Alexandrin.* 2. *Pædagog.* which alſo *Plutarch* elſewhere, and *Ælian* alſo affirm. They abhorre the ſmoke of *Aldud*, eſpecially of the leaves as of *Palſamus*, *Acegi*, Cow dung, and Nigella ſeed, *Rhaſis* 88. The Hemerocallis of *Dioſcorides*, is called by ſome ἀντικάνθαρον, for the great force it hath to kill Beetles: but as they do extremely ſhun thoſe plants, ſo they very much affect Ivy to be under its ſhade, and they naturally delight to go under it, under which when they are gathered in heaps, it is an eaſie matter to catch them, for they will hardly go from it. Beetles are ſome greater, ſome leſs. The great ones, ſome have horns, others are without horns. Thoſe that have horns, ſome are like Harts horns, others like Goats horns, others have Buls horns, others have Rams horns: ſome have horns in their noſes: we ſhall ſpeak of them all in order. The ἐλαφόκερως, or Harts horn Beetle is called *Lucanus* by *Nigidius*; as *Pliny* witneſſeth. Some call it the Bull, others the flying Stag: *Heſychius* cals it ἄκανθος, becauſe it laies hold on things in its way with thorny horns; the *Comedian* and *Euſtathius* call it ἱπποκάνθαρος, becauſe it is the greateſt of all; *Cardanus* cals it σκαραβέλαφος, a word compounded of Greek and Latin; *Gaza* cals it [illegible], the Italians call it *Ceruti*, and vulgarly *Polupeſo*; the French, *Cerf volant*; the Engliſh, *Stag-fly*, or *Flying-fly*; the Hollander, *Vlieghende hert*; the Illyrians, *Gelin*; the Poles and Sclavonians *Krewka, Wielka*. Amongſt all the horned Beetles, for the ſhape of its body, length and magnitude, it may challenge the firſt place, and is the moſt noted. It is blackiſh, of a dark red, eſpecially about the outward cover and the breaſt; it hath two whole horns without joynts, and with branches like a ſtag as long as ones little finger in ſuch as are grown up, but they are leſs and ſhorter



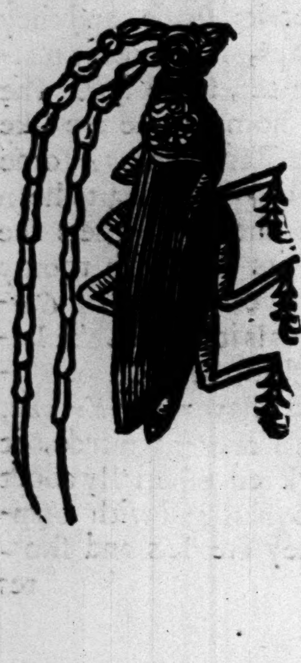


ter in the young ones : or (as *Pliny* ſaith) it hath long and movable horns nicked with cloven pincers, and when it will it can bite or nip with them. For it will cloſe them wonderfully, and uſeth its hornes for that end for which Crabs and Lobſters do their clawes. The eyes are hard, putting forth and whitiſh, it hath fore-yards on both ſides of them, one pair that are branched between the horns & the eyes, the joynt whereof makes almoſt a right angle, and two more breaking forth of the midſt of the forehead ſtraight and plain, ending as it were in a little ſmooth knot; it goes upon ſix feet, the fore feet are longer and greater than the reſt. *Lonicerus* makes this to be the male : but I (if there be any diſtinction between the male and the female) ſhall not doubt to call it the female; both becauſe the other kindes of beetles are leſs, (for as *Ariſtotle* obſerves the males in Inſects are far leſs than the female) and alſo in copulation the females receive from the leſſer, as experience confirms it. The male is altogether like it, but 'tis leſs both for body and horns; which though they be not branched on both ſides, yet preſſed together they do more ſharply prick ones. finger, than the female doth. The third is three or four times leſs than the former : a black colour, with little cloven horns, near to which there ariſe two fore-yards diſtinguiſhed with many joynts. It hath eyes a little ſtanding forth, and that are great in reſpect of its body. The ſhoulders on both ſides end in an acute angle. It feeds for the moſt part in a clammy fat juyce coming forth of the oak; nor is it eaſily to be ſeen but where oakes grow. The fourth kinde is very rare, it hath two little horns, thrice branched inwardly, they ſeem whitiſh from black, the back is parted with black and white ſpots, but the belly with ſilver coloured and blew. It goes on ſix feet, which are no leſs black than the fore-yards : when the head is cut off, the other parts of the body live long, but the head (contrary to the uſual cuſtome of Inſects) lives longer. This is ſaid to be dedicated to the Moon, and the head and horns of it wax with the Moon, and do wane with the Moon, but it is the opinion of vain Aſtrologers. The horns are not without their Medicinal vertues; for they cure childrens diſeaſes; for hanged about their necks, if they be great horns and full of branches, they ſerve for an Amulet. Laid to ſcrophulous humours and the Gout, they help much, eſpecially if they be applied with the earth they have caſt up. *Pliny*. If horned Beetles they call ſtags, be boyled in wine, and the arteries of the armes be anointed with it, it cures Agues. ***Miraldus***. But I note by the way, that *Guillerinus* of ſhell fiſh, was not very wiſe, who writing a Book *of the Nature of things*, was quite out, when he placed that *flying Stag* amongſt the Graſhoppers; ſometimes he makes it a Locuſt, ſometimes a *Bruchus*, ſometimes he confounds it with a Glow-worm, conjecturing every way, but teaching nothing. The Philoſopher ſaith that thoſe Stag-flies are bred only from worms growing in rotten wood. But I rather approve of it, that they breed from dung as experience teſtifies.

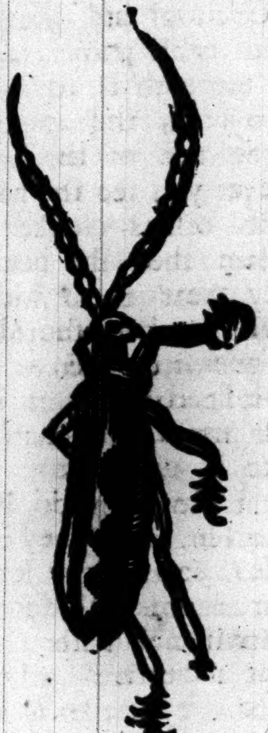
The uſe of broad horn Beetles.

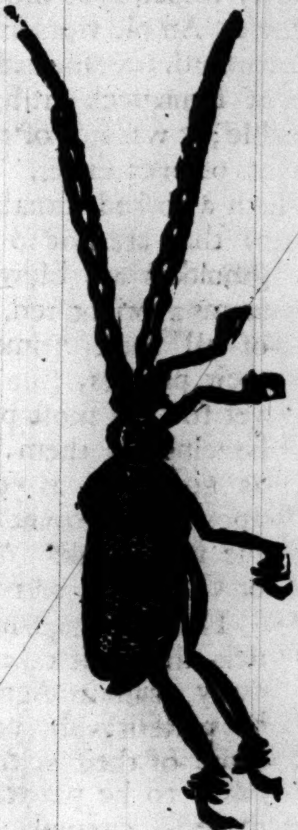
The name and deſcription.

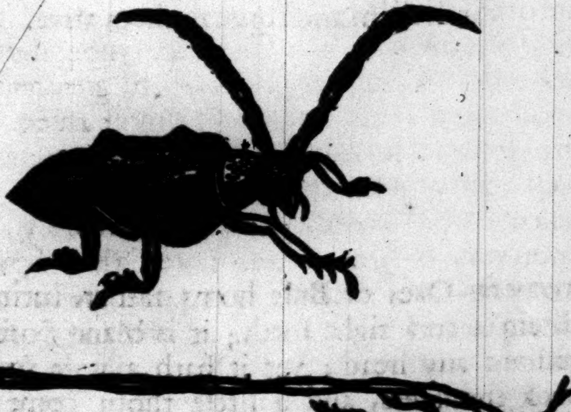
'Αιγόκερως, τραγόκερως, κεράμβυξ, κεραμβηλος (theſe are words that are ſynonymous) in Latine, *Capricornus*; the Germans call it *Holtzback*; the Engliſh, *Goat-chafer*; in greatneſs and colour it reſembles broad-horn, it hath a little broad head, great oxe eyes, almoſt three fingers overthwart in length; it hath a forked mouth, gaping and terrible, with two very hard crooked teeth; with theſe whileſt he gnaws the wood, I ſpeak by experience) it doth perfectly grunt aloud like a young pig. May be this is the reaſon why *Heſychius* hath related that they bound to a tree, will drive away fig-gnats. The ſhoulders of it are curiouſly wrought by nature, they ſeem to be a hilt made of Ebony and poliſhed, it hath ſix feet, diſtinguiſhed with three little knees; but they are very weak and faint, and altogether unfit for ſuch a burden. Theſe receive help by two horns that grow above their eyes, and are longer than their whole bodies, they are flexible with nine or ten joynts; not exactly round, but are rough like Goats horns, which although it can move them every way, yet when it flies it holds them only forth directly, and being wearied with flying, ſhe uſeth them for feet; for knowing that his legs are weak, he twiſts his horns about the branch of a tree, and ſo he hangs at eaſe; as our *Bruerus* ſaw in the Countrey about *Heidelberg*; in that it reſembles the Bird of Paradiſe, which wanting

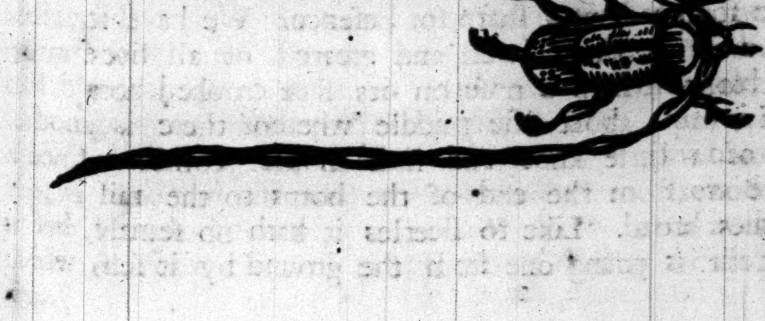


feet, clings about the boughs with thoſe pendulous nerves, and ſo being tired with labour, takes its eaſe. They thruſt upon us ſome German fables, as many as ſay it flies only, and when it is weary it fals to the earth and preſently dies. Thoſe that are ſlaves to tales, render this reaſon for it: *Terambus* a Satyriſt, did not abſtain from quipping of the Muſes, whereupon they transformed him into a Beetle called *Cerambyx*, and that deſervedly, to endure a double puniſhment, for he hath legs weak that he goes lame, and like a thief he hangs on a tree. *Antonius Libealis* *lib.* 1. of his Metamorphoſis relates the matter in theſe words: *The Muſes in anger transformed* Terambus *becauſe he reproached them, and he was made a* Cerambyx *that feeds on wood, he is ſeen upon wood, and he hath crooked teeth, and he alwaies moves his jawes; he is black and long, having wings on his belly, as the greater Beetles have; he is called the* Wood-eater Oxe; *but in Theſſaly,* Cerambyx. *The children catch them to play withall, and they pull off its head and carry it, and it ſhewes with the horns like a harp made of a Tortois-ſhell.* Which words, whileſt *Xylander* ſtrove to put them into Engliſh (one otherwiſe well skill'd in the Greek tongue) he committed two great errors; firſt, by taking Cerambyx for a Bird when he called it a Fly; ſecondly, becauſe he tranſlated it, that the head with the wings are like a Harp, when as the Greek book hath it the horns. But whether this be that kinde of Beetle that runs up and down, and makes a noiſe like a kid in the leaves of Eriphia; (the Wizards ſay there is no better remedy to cure the voice) truly I am ignorant of it, but I ſuppoſe it is the leſſer Beetle, becauſe the ſtalk of Fennel gigant would ſcarſe contain this when he is grown great. We have ſeen divers kindes of Cerambyces beſides this we now ſpeak of, one that was like to the firſt of theſe, but differing in magnitude and colour; the belly thighs and horns were of a wateriſh blew; the ſhoulders, tail and cover wings were varied with ſome black ſpots, alſo the joynts of the horns were black; the hinder legs grew longer than the reſt: we received theſe from *Quickelbergius*, who ſent them from *Antwerp*; we have one more that is green without, and underneath dun coloured; the head, ſhoulders & cover wings are a dark green, and ſhining alſo with gold: it is ſomething a long body, and ſeems like the other, but it is ſomething leſs; it hath purple horns, but the feet and the legs are of a violet colour. I firſt gave to *Pennius* a third that was of like colour to this, it ſmelt almoſt like Nutmeg and Cinamon. But that ſweet ſmell (as good as the oyl of Myrrhe) preſently when it dies evaporates into the air, and leaving the body, doth wholly inſinuate it ſelf into the box it was kept in. *Cardanus* makes mention of this Beetle, but I know no man that found it before me. There is yet one of a ſhining black, that hath a great belly, thick, with a body and horns ſhorter than the reſt, the joynts of the horns are not round as they are in the reſt, but lightly ſaw'd on both ſides. *Pennius* ſaith he is beholding to *Carolus Cluſius* for it. The fifth is altogether like the firſt for head, mouth and teeth, with very black eyes; a brown colour all over the body, a mouth wide open and dented; the head, neck and wings are beſpotted with very ſmall black ſpots; the body of it is almoſt as great as the ſecond Cerambyx; it is but ſeldome ſeen, it lives in houſes and dry wood. The ſixth is aſh-colour with a very little head, they eyes are both white, the horns are ſomewhat long, joynted, diſtinguiſhed with white ſpots; the cover wings, and almoſt the whole body

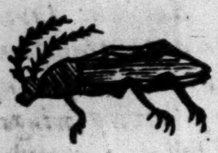




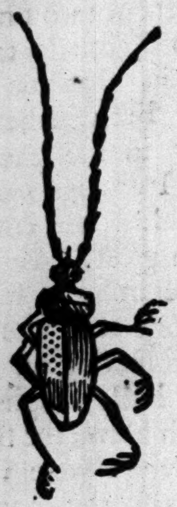


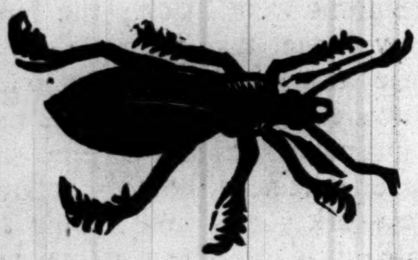


is various, it is converſant in houſes, but whether it dwell in wood alſo I know not. I ſaw the ſeventh brought from *Ruſſia* by *Edward Elmer*, it was browniſh all the body over, it had round joynts on the horns 7 or 8, it is eaſily known by its form. There is an eighth kinde not far differing from this in figure and magnitude, but that the head, ſhoulders and wings are blewiſh.



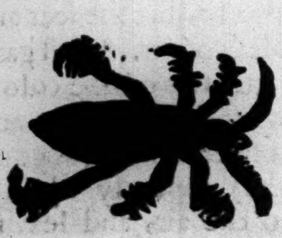
Joachimus Camerarius ſent a ninth to *Pennius* (he was one that deſerved ſingularly of the Common-wealth of learning) the wings and feet were of a ſandy colour; the head, the horns and belly were blackiſh; he had bowed horns made with many turnings and knots, which he turned to both ſides in the twinkling of an eye; it creeps upon plants (eſpecially on Cythiſus) I think the Beetle which *Johannes de Chaul* deſcribes *lib. de varia quercus hiſtoria, ch.* 26. is of this kinde: *There dwels a creature in the oake, of the kinds of Beetles, (ſo far as we can conjecture) it is of a blackiſh colour with long legs, carrying two prickles in its head a little crooked, wherewith he layes faſt hold of what he meets with. Thoſe Carpenters that hew timber of oake, found this little creature alive in the very heart of the oake. The countrey people of Lyons call it* Thurro; *it lives beſt and longeſt in roofs of houſes, and it ſometimes comes forth and ſhewes it ſelf making a little noiſe, in places where ſtoves are. Geſner*, of pious memory, *Epiſt. l.* 3. ſaw ſuch a one, or one like it, voided by an old woman that was ſick of a Pleureſie, his words are theſe. An old woman that was ſick of a Pleureſie, voided a black Beetle downward, after ſhe had drank a Potion of our Oxymel with a decoction of Fenugreek; it had long feet, horns that were joynted and were flexible; it was full of raw putrefaction, and alive; it was as long as two joynts of ones finger. The tenth is all purple coloured from black, and hath a forked mouth. The eleventh is all black. The twelfth hath horns that are not ſo much joynted, the head and ſhoulders are blew; all the reſt of the body ſeems a bright red. However you ſee the horns of all theſe, ſome ſtraight, others crooked in their pictures, (for to explain them the better) yet for the moſt part they wear them with a bending of them backward to their ſhoulders, as goats do, as you ſee the firſt *Cerambyx*: and upon that account I think it fit to put them into the ſame rank. And thus much for Cerambyx, or Capricorn, and its kinde.

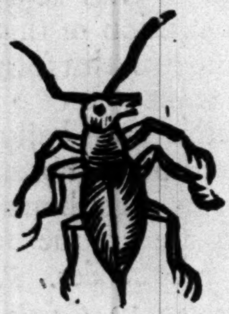


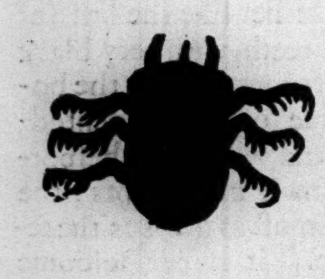


The Uſe.

I have learned no other uſe of them in Phyſick, than that taken in the left hand, they drive away quartain Agues, *Plin. l.* 30. *cap.* 11. It may be poſterity, by better experience will diſcover more of their vertues, and will not ſuffer themſelves to be perſwaded that a creature God hath made ſo curiouſly can want rare vertues in Medicaments, which he hath beſtowed on far baſer things (according to his goodneſs unto mankinde) Flitter-mice take this for their chief dainties, and prefer it before Gnats, eſpecially if they can catch them and ſqueeze them alive.

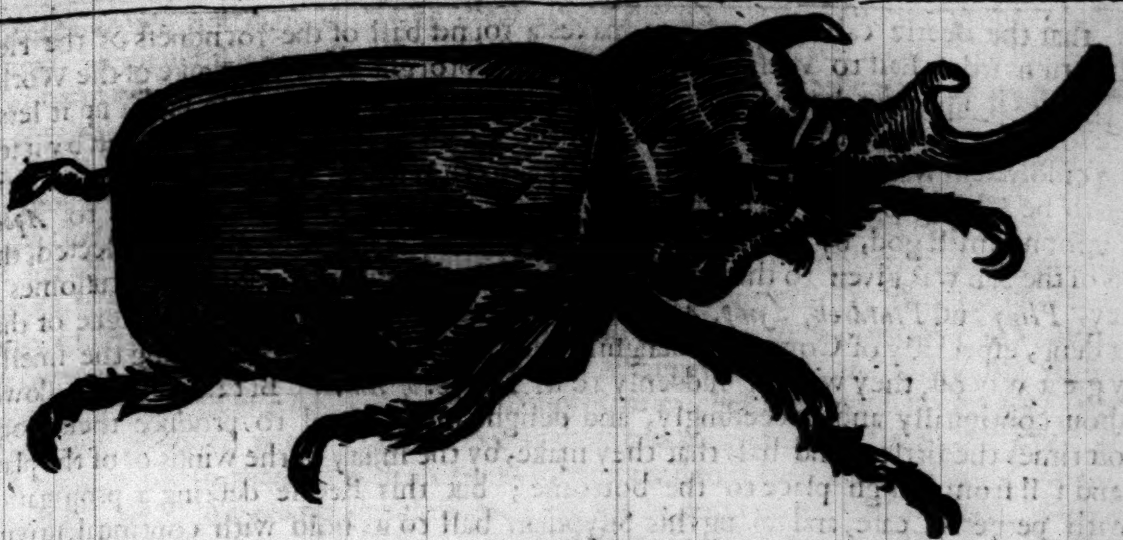






Βούκερως, or Ταυρόκερως, Oxe, or Buls horns rather, hath alwaies two horns ſtanding ſtraight and right forth; it is blackiſh from red, and ſeems almoſt without any head; yet it hath a very ſmall head ſunk into its ſhort thick ſhoulders, and a little thorn comes forth of the middle of the forehead, very ſharp for defence. We have ſeen four kindes of Noſe-horns, the chiefeſt and greateſt of all lives in *India*, it is very black, it hath a noſe on its face crooked horn'd like to the ſtern of a ſhip; about the middle whereof there is another horn bent inward, and comes forth of a little knot, and ſuch another comes out of a bunch on the ſhoulder; the whole body from the end of the horns to the tail is four inches long, and it is about two inches broad. Like to Beetles it hath no female, but it ſhapes its own form it ſelf. It produceth its young one from the ground by it ſelf, which

Joach.

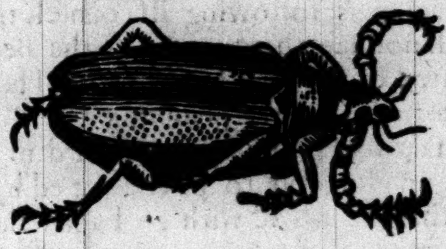


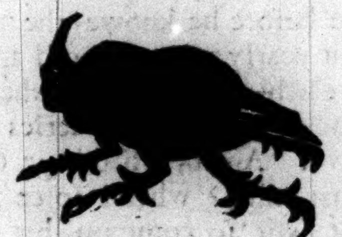
Joach. Camerarius did elegantly expreſs, when he ſent to *Pennius* the ſhape of this Inſect out of the ſtorehouſe of natural things of the Duke of Saxony; with theſe Verſes:

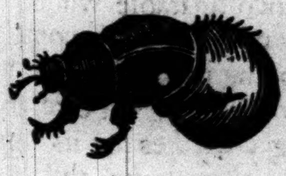
> *A Hee begat me, not, nor yet did I proceed*
> *From any Female, but my ſelf I breed.*

For it dies once in a year, and from its own corruption, like a Phœnix, it lives again (as *Moninus* witneſſeth) by heat of the Sun.

> *A thouſand ſummers heat and winters cold*
> *When ſhe hath felt, and that ſhe doth grow old,*
> *Her life that ſeems a burden, in a tomb*
> *Of ſpices laid, comes younger in her room.*







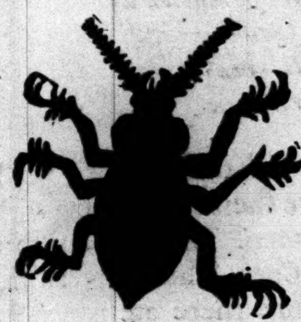
The ſecond kinde of Noſe-horn very rare and worthy to be ſeen, ſacred to Mercury, *Carolus Cluſius* ſent painted from *Vienna*, where it is very frequent, the form is as you ſee it: it would ſeem all pitch colour, but that the belly is a full red; that crooked horn in the noſe is ſo ſharp, that (what is ſaid of an Elephant going to battle) you would think it had got an edge by rubbing it againſt a rock. The third Noſe-horn, and fourth ſeem to be alike, but that the former hath wings growing out longer than the ſheath covers, but the others are ſhorter. You would ſay they were rub'd with ſhining ink, they are ſo perfectly all over black. The Ram or κριόκερως, hath knotty horns, violet colour, a head greeniſh from gold colour, the ſhoulders like vermilion, a purple coloured belly, ſheath wings of the colour of the head, it goes forward with legs and feet, of a light red, but the wings ſhut up in the ſheath, do fitly expreſs the ſmall whitiſh membrane of a Cane.

The greater Beetles without horns are many; namely, ~~that~~ is called *Pilularius*, and another that is called *Melolanthes*; another purple, one again that is dark coloured; one called *Arboreus*, and another *Fullo*. Some call the *Pilularius* the dunghill Beetle, becauſe it breeds from dung and filth, and alſo willingly dwels there. The Greeks call it κοπρίδιον, and ἡλιοκάνθαρος, and from its form like a cat, Αἰλουρόμορφος; the Germans, *Roſſkafer*, *Kaat*, or *Miſtkafer*; in Engliſh, *Dung-beetle*, *Sharnbugg*; in French, *Fouille merde*, as you would ſay *Dung-digger*; the Latines call it *Pilularius*, becauſe it turns up round pills from the dung, which it faſhions by turning it backwards with its hinder feet. *Porphyrie* doth thus deſcribe the nature of it: All your *Pilularii* have no females, but have their generation from the Sun; they make great balls with their hinder feet, and drive them the contrary way, like the Sun it obſerves a circuit of 28. daies. *Ælian* ſaith almoſt the ſame. There is no female Beetle, it puts the ſeed into a round ball of dung, which it rowls and heats in 28. daies, and ſo produceth its young. They would ſay thus much: that the Beetle called *Pilularius* makes a round ball of the roundneſs of the Heavens, which it turns from Eaſt to Weſt ſo long, till it hath brought it to the figure of the World; afterwards it laies it up under the earth where it breeds, and when that hath ſo laid it up, it lets it remain there for a Lunary moneth; when that is ended, it caſts every ball out of its neſt by it ſelf, which being diſſolved in water, the Beetle-worm comes forth without wings, but in a few daies it growes up to be a flying Beetle. For this reaſon the *Ægyptians* conſecrated this to *Apollo*, and adored it for no ſmall god, by the curious interpretation of *Apion*, whereby he collected, that the likeneſs of the Sun was given to this creature, and ſo he excuſed the idolatrous cuſtomes of his Countrey, *Pliny* and *Plutarch, Symp.* 4. They wonderfully hate Roſes as the plague of their family; but dung, eſpecially of Cowes and dunghils, they love ſo much, that ſmelling the ſmell of them a very great way off, they will fly ſuddenly to it. *Theoph. of Smel.* But they go but ſlowly, yet they labour continually and exceedingly, and delight moſt of all to produce their young ones, for oft times the little round bals that they make, by the injury of the winds or of the place, fall away, and fall from a high place to the bottome; but this Beetle deſiring a propagation, watcheth with perpetual care, and raiſing this Siſyphian ball to its hold with continual ſtriving, and that tumbling back again, at length ſhe reduceth it. And truly unleſs it were endued with a kinde of divine ſoul (as all things are full of Gods wonderfulneſs) it would faint and be ſpent in this great conteſt, and would never take this pains any more. Some ſay they die being blinded by the Sun; but the moſt think they are choked by lice (that creep all about them) they hardly hold out one winter. They chiefly delight in the ſhade of the Ivy-tree, as moſt healthful for them. *Praxanus in Geopon.* I have ſet down the form of it ſo exactly, and in its colours (for it is all black) that I need ſay no more. Beetles firſt breed from dung (ſaith *Johan. Langius*) as the Worms breed out of rotten wood: then their ſeed being ſhed into a round ball, and the ſame being enlivened, breeds their young ones: every one knowes this ſufficiently, unleſſe they live where no dung is; for in dunghils they are obvious to every Man.

Their uſe for our underſtandings, and by example.

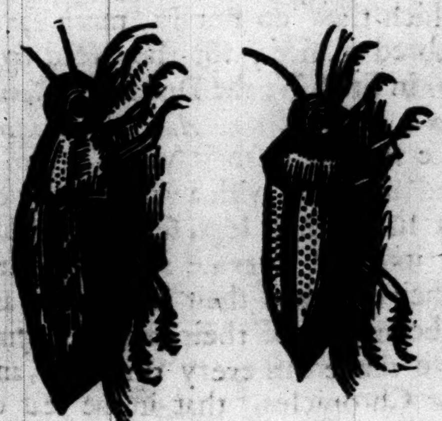
Beetles ſerve for divers uſes, for they both profit our mindes, and they cure ſome infirmities of our bodies. For when this living creature, (and ſcarce a living creature, for it wants ſome ſenſes) being of the baſeſt kinde of Inſects, and nothing but a cruſt, doth excel man in divers faculties; this ſhould teach us modeſty, temperance, labour, magnanimity, juſtice, and prudence. For though its houſe be but a dunghill, yet it lives contented therewith, and is buſied and delighted in it; nor doth it more willingly drink or eat amongſt Roſes than in Goats dung, which ſmels in its ſenſes as ſweet as Marjoram. For it lives by the law of Nature, and will not exceed her orders. The greateſt care it takes, is to make the greateſt bals it can, as if they were ſweet bals, which with wonderful labour it rolleth from her; and if it chance to roll its burden againſt ſome heap, that the bals ſlip away and fall down again, you would imagine that you ſaw *Siſyphus* rolling a ſtone to the top of a mountain, and falling back again upon him, yet is it not weary, nor will it reſt, till it hath rolled it to its neſt, ſo earneſt it is about its work. But we poor men do nothing that is worth our labour, or as we have power to do, and we give off in the very ſteep entrance of vertue, and we ſpend all our pains and daies in idleneſs, following ill counſel, till we get a habit of miſchief to our own deſtruction. Who doth not ſee the courage of the Beetle? if he ſhall obſerve him fighting with an Eagle (as 'tis related of the Beetles in *India*) I believe that it will come to paſs, (as *Eraſmus* ſaid) that ſome man extremely favouring the Roman Commanders, will lament for the Eagle, that the combate fals out upon ſo kingly a Bird to fight with ſo mean and deſpiſed enemy, for to conquer it, it is no glory, but to be conquered by it is the greateſt ſhame, and the Beetle will win praiſe enough that he ſtrove with an Eagle, though he ſhould be overcome. The Poets ſay that *Ajax* was aſhamed of ſo weak an adverſary as *Ulyſſes* was, and valiant Captains diſdain to contend with common ſouldiers. Again, a man would wonder whence this mean Inſect hath gained ſo much courage, and boldneſs, that it dares wage war with the ſtrongeſt of Birds; alſo whence it hath means, force, faculties, and patience, that it can contend ſo many years with the Eagle, without any reconciliation. But if any man will unfold this ſecret, and view this contemptible creature nearer, and as it were at home, he ſhall obſerve ſo many rare properties of it, that when he hath conſidered all, he will deſire to be a Beetle rather than an Eagle: yet that no man may ſtop or ſtay me before he knowes the matter: Firſt of all, it exceeds the Eagle and men too in this reſpect, that it yearly renews its old age, and growes young again. This is ſo great a matter, that I think all earthly potentates, when they come to that unamiable old age, that they muſt part with all, would rather with Beetles change and caſt off their dregs, than they would receive a ſeven fold Crown. Again, what huge courage of the minde is there in ſo ſmall a body? what an heroical magnanimity? what a force it hath in battel? that *Homers* Fly is nothing to the Beetle. It hath not a wit ſo common, but it was of old reputed for it, and commended in all places. Hence was that Greek proverb Κανθάρου σοφώτερος. *Wiſer than a Beetle*: whereby they aſcribe to it, a ſingular and incomparable wiſdome. Nor doth that concern me if any man will cavil and ſay he dwels ill favouredly in an uncomely houſe, for I ſhall rather juſtly condemn their houſhold government, who being ill favoured themſelves, and of filthy conditions, do build their houſes curiouſly and loftily with ſo great care, and charges of King *Attalus*. Moreover, that it uſeth the excrements of living creatures for its own commodity is no fault, but a commendation of its wit and ingenuity. As though we that are Phyſicians did not the ſame things, as often as we apply the bloud, the fleſh, the urine, and ſometimes

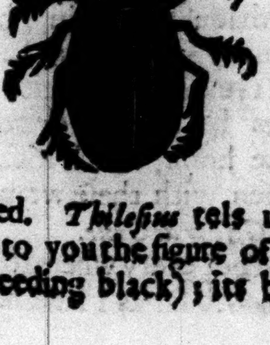
times the ordure and dung of living creatures to our patients, and ſometimes we give them in Potions. Nor are Alchymiſts aſhamed (who would be divine men indeed, and not mortal, could they obtain what they aim at) to uſe dung to draw forth that quinteſſence. Nor are husband-men (a ſort of people that of old time none were more honoured, none more ſacred now) aſhamed to dung their fields. And it is probable they firſt learned their Art from the Beetle called *Pilularius*. For why ſhould it chiefly include its ſeed in dung, unleſs God would have that there ſhould be in that a great deal of vegetative heat and moiſture, whereby principally generation is perfected? Hence it is that wiſe Farmers dung'd their fields to make them more fruitful, and ſo conquered that horrid leanneſs, barrenneſs and poverty of their grounds. But you will ſay that the Beetles *Pilularii* like the ſmell of ſo ſtinking a thing. It were a folly to look for a mans noſe in a Beetle, for that is peculiar to man to be diſpleaſed with the ſent of his own dung, and ſo is it not with any other creatures; therefore the Beetle is more happy than we, but not more uncleanly: yet men are not ſo much offended with it, as it is, but as they conceive of it. For of old time it did not ſeem abominable to them as it doth to us, for they called it by a lucky word, *Lætamen*; and they thought fit to call *Saturn* the dunghill god, for his honour, if we will believe *Macrobius*. For *Pliny* ſaith that *Sterculus* the ſon of *Faunus* got not only the name, but alſo immortality by it in *Italy*. Moreover the ſame thing in *Greece* procured to two Kings great glory; to *Augeas* who invented it, and *Hercules* that ſpread it abroad. Laſtly, the memory of that old King will never be aboliſhed, whom *Homer* (as *Cicero* ſaith in *Cato*) commended to poſterity for dunging the ground with his hands, and for no other thing but that the Beetle is delighted in. A Roman Emperor was nothing offended with the ſmell of urine, if it brought profit with it. Wherefore then ſhould we be offended with the *Pilularii*, who hath ſo many good properties, for one ſmall inconvenience? if we call that an inconvenience that is moſt commodious for the foſtering of its young. Laſtly, when we ſee the Beetle, though in the dung, alwaies clean, and his ſhell alwaies neat; compare him with men polluted and infected with ſtews and bawdy houſes, and I ſhall ask which of the two is moſt cleanly? And I think it had its name *κάνθαρος* a Beetle from *καθαρὸς* pure and clean. If any man thinks theſe gifts to be trivial and vulgar, yet no man but will think that a magnificent thing, and worthy of great honour; that of old time the Beetle was the chiefeſt amongſt their ſacred images and myſteries of their Southſayers. It is the moſt apt Enſign of a famous warrier. For (as *Plutarch* reports in his Comment of *Iſis* and *Oſiris*) in the hieroglyphical pictures of the *Egyptians* an Eye was the Embleme of a King, a Scepter being added to it, for it ſignified a right and juſt adminiſtration of things. But he ſaith, at *Thebes* their Images that wanted hands, thoſe repreſented Judges, who ought to be free from bribes; and amongſt theſe there was one alſo that wanted his eyes, which repreſented the chief Judge, becauſe he ought to be free from all paſſions, and to look on the buſineſs, and to hear it, to reſpect no mans perſon. It was not Pimpernel amongſt pot-herbs (as the proverb is) but a Beetle ſigned in a Seal amongſt the ſacred Images. And what did thoſe wiſe Theologians intimate to us thereby? no common thing indeed, but a valiant and invincible Captain. For *Plutarch* ſaith as much, that no man may ſuppoſe that I invented it; as your common Theologians uſe to invent Allegories. But ſome ignorant fellow may ſay, what hath a Beetle to be compared with a Commander in an Army? Truly they agree in many things. Firſt you ſee the Beetle is all in armour, and there is no part of its body but is guarded with plates and harneſs, that *Mars* in *Homer* cannot be ſaid to be better armed when he is in compleat armour, and fenced cap a pie. Add to this his warlike march with a horrid and terrible humming: what is there more unpleaſant than the ſounding of Trumpets? what more loath'd than the beating of Drums? for the ſounding of Trumpets that Kings now ſo much delight in, the *Buſiritæ* could not endure, becauſe it ſeemed like to the braying of an Aſſe, and the Aſſe was held abominable amongſt them. Add hereunto the wonderful patience of the Beetle in driving on its burden, its invincible courage and contempt of life. To this, then ſay there is no females amongſt Beetles, but they are all males. What can better beſeem a valiant General than to have no female in his camp himſelf, nor allow others to have them? Moreover this is fit for the matter, that in thoſe delicate balls we ſpeak of, they exclude their young ones, foſter, cheriſh, and bring them up, and they have no other place to breed in that they have to feed in. But this ſecret is not eaſie for me to open. Souldiers in war can better do it, who know how to lie in their armour, or on the bare ground, that in ſieges have undergone hard winters, and harder hunger; that have ſuſtained their ſad life not with roots of herbs, but with filthy food, who have for ſome moneths lived in [illegible]. If any man conſider the beaſtlineſs of theſe mens conditions, the Beetle will be a cleanly creature; and conſider but their miſery, and you will think the Beetle happy. So this is the lot and condition of Generals, that no man may deſpiſe it. But by the way, I wonder what ails our great men, that hold all their Nobility to lie in their Scutcheons, that they had rather have Leopards, Lions, Dogs, Dragons, Wolves, or any other creature that they chance to meet withall, whereas their proper ſymbole is the Beetle both as the fitteſt, and was ſo uſed and approved from eldeſt times, which is the only parent of Nobility? As for the form of its body (let go their prepoſterous judgement and opinion) and there is no reaſon why the Beetle *Pilularius* ſhould be deſpiſed, or can be; for if Philoſophers ſay true, that a ſphærical figure is the moſt comely and the beſt, why then ſhall not the Beetle ſeem comely, which from the judgement of *Dia*[illegible] is nearer to it than an Eagle or a man himſelf? *Clem. Alexandri. l. 5. Stromat.* And though the Beetle have a face like a Cat, a creature familiar with us, and more uſeful, than it is deſired for its ſelf, yet in that reſpect the *Ægyptians* adore it, and prefer it before all other Inſects by many degrees. *Calcagninus.* Laſtly, if a horſe be beautiful in his kinde, and a dog in his, why ſhould not the Beetle be ſo in its kinde? unleſs we meaſure the forms of all things by our own, that what is not like us muſt be held to be ugly. No man of a ſound minde will finde fault with the colour of it, for it ſets forth ſome jewels, and in ſpecial the Diamond that is the chieſeſt jewel. Laſtly, no man will think the Beetle at all deſpicable, who ſhall conſider with himſelf, that Magicians and Phyſicians fetch remedies from this creature for the greateſt diſeaſes; for they are not only carried in mens purſes, but alſo hang'd about their necks, and ofttimes ſhut up in gold againſt all childrens diſeaſes. What will you ſay if in the moſt effectual and incredible remedies almoſt, (for *Pliny* is the Author of it) it hath equal force with Antidotes? for that terrible Beetle engraven on an emerald, yeelds a preſent remedy againſt all witchcrafts, and no leſs effectual than that *Moly* which *Mercury* once gave *Ulyſſes.* Nor is it good only againſt theſe, but it is alſo very uſeful, if any one be about to go before the King upon any occaſion: ſo ſo that ſuch a ring ought eſpecially to be worn by them that intend to beg of Noblemen ſome jolly preferment, or ſome rich Province. It keeps away likewiſe the head-ach, which truly is no ſmall miſchief, eſpecially to great drinkers. Who then can deſpiſe the Beetle, whoſe very image engraven upon ſtones hath ſo great vertue? The mentioning of precious ſtones puts me in minde of adding this alſo: that if the Eagle delight in the precious ſtone of her name, the *Aetites*; the Beetle comes not behinde her in its ſhare of the ſame honour, for the ſtone *Cantharias* alſo owes its name to it, wonderfully reſembling the whole figure of the creature, ſo that one would ſay it is not the ſhape repreſented, but a living and true beetle incloſed in the ſtone. Moreover this impure and filthy creature (forſooth) boyled with worms in oyl of Roſes, doth very well cure the pains of the ears. *Plin.* *Aviſen* preſcribes the Beetles called *Pilularii* being ſtamped alone, to be boyled without worms, which the Author of the Book *ad Piſonem*, approves alſo, *chap.* 12. *Sylvaticus chap.* 94. writes thus out of *Avicen*: The *Dung-Scarabees* help the pains of the womb, they provoke urine and monethly termes, they procure Abortion; with *Cardamoni*: they are good to heal the Hæmorrhoids, and they help that benummedneſs which comes of venomes infuſed by living creatures; and the oyl in which they are bruiſed takes away the pains of the ears. The later writers commend theſe Beetles dried among the remedies for the Stone; eſpecially *Alexand. Benedic.* *Lanfrancus* makes for the cure of the Stone this kinde of powder, which is no ordinary one: Burn the Dung-beetle or any other after the ſame manner as you do Graſhoppers, or Scorpions; Take of the aſhes of them grains v. of Hippocras j. dram, of Pigeons dung j. dram and a half, let them be dried and a powder made of them. The Doſe is j. dram with water of the decoction of Radiſh, Brambles, or black Chiches. For the Hæmorrhoids this ointment is very much commended. Take of oyntment Populeon j. ounce, of oyl of Roſes in which 20 Beetles and as many Chiſlops have boyled a good while j. ounce and half, of Saffron gr. iiij. let them incorporate and be made into an oyntment. *Arnoldus de villa nova Breviar. l.* 1. *c.* 25. reports that he had gotten of his maſter a ſingular oyntment againſt the Convulſion, made of Beetles after this manner: Take of Pepper, Euphorbium, Pellitory of Spain, each alike, of Beetles to the weight of all the reſt; let them all, being brought to a powder and mixt together in a bath with juyce of Spear-wort as much as ſufficeth, be macerated and made in the faſhion of an oyntment, with which let the pulſes of the arms, feet and temples, with the navel and back-bone, be anointed. Moreover, *l.* 1. *c.* 11. he preſcribes for the awakening of ſuch as are troubled with the Dead ſleep, and with the Lethargy (when Cantharides and Cauteries have done no good) two or three Dung-beetles alive put up together under half a walnut-ſhell, to be made faſt about the nape of the neck, being firſt well ſhaved, and upon the muſcles of the forepart of the arms (on every muſcle one) and under the ſole of each foot one, becauſe this doth wonderfully rouze up ſuch as are in a Lethargy. And *Nic. Falc.* of *Florence* (ſaith *Arnoldus*) awakened one that had been held with a Lethargy for ſeven dayes with this remedy, having tried all others in vain; and cured him afterward with Cantharides laid upon the nape of his neck to bliſter it. The Dung-Beetles are beſt for this purpoſe, they are next which uſe to be found under ſtones, and then they which are found in a bath. The Solar Beetle cures them who are ſick of a Quartan Ague, ſaith *Ælian.* *Pliny* and *Trallianus* ſhew us the way of uſing it, which is, when it is hung about the neck alive, and wrapt up in a piece of red cloth, and this they teſtifie they have ſeen confirmed by many experiments. Yet the Magicians will ſcarce finde credit, when fooliſhly rather than truly, they report and imagine that the precious ſtone *Chelonitis* that is adorned with golden ſpots, put into hot water with a Beetle, raiſeth tempeſts. *Plin. l.* 37. *c.* 10. I ſay nothing of the Eagles, the Woodcock, the bird called *Lanius* by *Geſner*, in whoſe neſts Beetles ſtuck upon thornes (which our *Butlerus* firſt obſerved) are an argument, that they ſerve for this uſe alſo, to feed Birds. Nay *Bellonius* affirms that many other living creatures, eſpecially Frogs that are in Marſh grounds, feed upon them. And indeed though the Eagle, its proud and cruel enemy, do no leſs make havock of and devour this creature of ſo mean a rank, than our lordly Storks uſe to do the peaſant Frogs; yet as ſoon as it gets an opportunity, it returneth like for like, and ſufficiently puniſheth that ſpoiler. For it flyeth privily in to her neſt with its fellow ſouldiers the Scara-beetles, and in the abſence of the old ſhe Eagle bringeth out of the neſt the Eagles eggs one after another, till there be none left, which falling, and being broken, the young ones while they are yet unſhapen, being daſht miſerably againſt the ſtones, are deprived of life, before they have any ſenſe of it. Neither do I ſee indeed how ſhe ſhould more torment the Eagle than in her young ones. For ſome who ſlight the greateſt torments of their own body, cannot endure the leaſt torments of their ſons. We ſee Aſſes, (thoſe ſluggiſh and almoſt ſenſeleſs creatures) run to the help of their foals through fire, if it be in their way, with a ſtrange contempt of their life. So that I cannot but admire and magniſie the Beetles inbred wiſdome in the choice of its revenge. But enough of this, leſt I ſhould ſeem to have made (not an Elephant of a fly, but) a Gyant of a Beetle. I will confeſs indeed, that as I was loath to make a great volume about a ſmall thing, ſo I accounted it a ſin to bury in ſilence what I had read. I wonder at *Pennius*'s brevity and emptineſs in this argument, ſince in *Lucian*, *Pliny*, *Homer*, *Ariſtophanes*, *Theocritus*, *Alexandrinus*, *Eraſmus*, and infinite other Authors, wonderful things are recorded of the Dung-Beetle, well worth our mentioning.

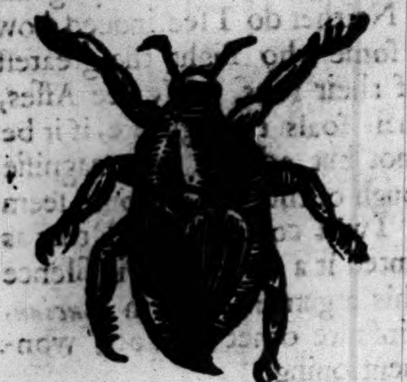


There is another altogether like the Dung-Beetle, but of a darkiſh bright blew colour, with a notable ſhining. This in the moneth *Auguſt* is troubled with lice hanging between its legs, and at laſt kill'd with them. I ſhould rather take this for the cat-faſhioned Beetle, becauſe an egge is not more like to an egge, than this is to a cat. It is met with every where, but I have more often ſeen it about *Colcheſter*. Let us go forward.

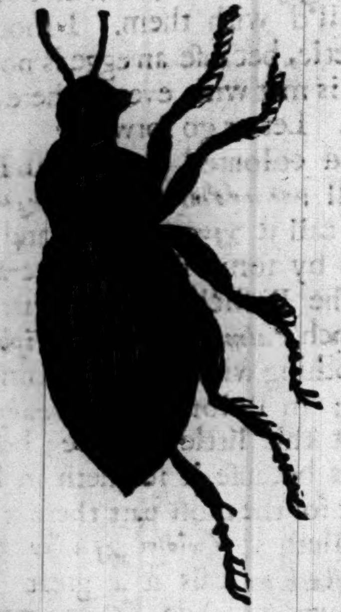
That which I ſhould call the Emerald coloured or greeniſh Beetle, the Greek comick Poets all of them call μηλολάνθη, the *Atticks* μηλάνθη and χρυσαλλίς. *Euſtath.* Some likewiſe call it χρυσομηλολόνθη and χρυσοκάνθαρος, but without right. It is taken by ſome for the Tree-Beetle, but its place tels us it is a miſtake. The Ruſticks in Lombardy call them *Gallerucas*, as much as to ſay, French *Palmerworms* (as *Niphus* interprets it) though yet they agree in nothing with Palmer-worms. In Dutch it is called *Gruenen*, *Odor*, *Gouldkafer*; in Italian, *Mariola*; in Polonian, *Zielonakroroka*; in Engliſh, *Greenchafer*. The opinions of writers are divers about this little creature; both becauſe this kinde of Beetle is not every where eaſie to be found, as becauſe it ſeemeth to be very near the *Cantharis*. Some will have it to be the *Cantharis*, but for the moſt part there is wanting in it that cauſtick virtue. The Scholiaſt upon *Ariſtophanes* calleth it ζωΐδιον χρυσίζον κανθάρῳ ὅμοιον, a little creature of the colour of gold like a Beetle. *Euſtathius* cals it a great Waſp; *Pollux* affirms it to be a little creature which flies, but ſets not down its kinde. *Gaza* tranſlates it *Galleruca*, but it hath nothing like it; and they who contend that it is a Tree-Beetle, have either loſt their eyes, or cannot diſtinguiſh varieties of colours. *Heſychius* makes it a Beetle, but of a golden colour; as the Scholiaſt upon *Ariſtophanes*, yellow: later writers call it the greeniſh or Emerald coloured Beetle, but ſhining as it were with gold. *Marcellus Empiricus* intimates as much in theſe words: the green Scarabee (the Greeks call it μηλολόνθη) is of a lively emerald colour, by reaſon of the pleaſantneſs whereof, it is ſo delightſome and beneficial to the eyes, that they can never be weary of it; for the longer you look upon it, the more you would be in love with it. *Pliny* alſo ſaith the ſame, *l.* 30. *c.* 70. & 29. *c.* 9. The male is green all over, except the eyes which are ruddy; the ſheaths of the females wings (which is the bigger) ſeem to be of a cheſnut colour, ſhining with a delightſome and beautiful brightneſs; otherwiſe it is like the male. The breaſt of them both ſtands out with a ſharp point, which I have not obſerved in other Beetles. *P. Quickelberg* an Apothecary of *Antwerp*, but one who was to be preferred before many Phyſicians for his ſtudiouſneſs about things natural, ſent to *Pennius* a male and female of them, painted as it were with *Apollo*'s hand. *Ariſtot. l.* 9. *de Reſpiratione*, aſcribes to it a ſhrill ſound, which perhaps gave occaſion to ſome to call this the Tree-Beetle. They are generated (ſaith the Philoſopher) ἐκ τῶν σκωλήκων τῶν ἐν τοῖς βολίτοις, καὶ τῶν ὀνίδων, that is, *of worms which are in cow-dung, and of aſſe-dung.* But *Stephanus* out of *Theophraſtus* ſaith otherwiſe, γίνεται ἡ μηλολόνθη ἐν τοῖς ἀνθήσεσι τῶν μηλεῶν, ἢ ἀρχομέναις ἀνθεῖν περιπέταται, &c. *The* Melolonthe *is bred of the bloſſoms of Apple-trees, or at leaſt it flies to them when they begin to bloſſome.* We are beholding to *Charles Cluſius* for another kinde of this Beetle, whoſe feet are black, as likewiſe its head and ſhoulders, but from blewiſh. It hath horns in appearance, but not ſo indeed (wherefore we reckon it amongſt the ἀκέρατον, or hornleſs Beetle) its ſheath wings ſeem to be furrowed; but about the edges they are ſomewhat red. *Thileſius* tels us of another notable kinde of *Melolonthe* (and I have here repreſented to you the figure of it) in theſe words; it is green all over, except the eyes (for thoſe are exceeding black); its belly from golden is a little red, and ſo its thighs; the middle of its





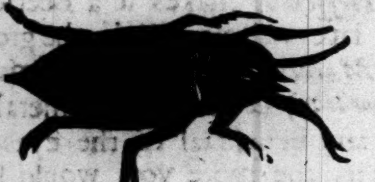


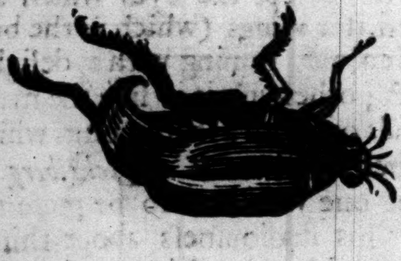
back is beautified with a half Moon of the ſame colour with its ſheath wings; for which reaſon it is elegantly called by the Latines, *Equus Lunæ*, the Moons Horſe. *Thileſius* writes that *Ariſtotle* makes mention of this, but I cannot yet finde where the Philoſopher does it. *Thileſius* while he ſpeaks of this among the Dung-Beetles (for which reaſon alſo I have added it to them) deſcribeth it thus in verſe:

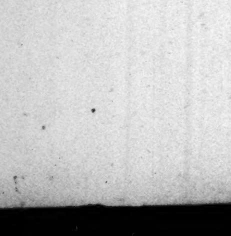


Which, rolling bals of dung this potter frames,
Some black, like the ſcorcht Moor are ſeen,
The nobler ſort are deckt with green:
Whoſe back hath (to compare great things with ſmall)
A mark, you may the half Moon call.
The Engliſh call't the Moons horſe, ſo renown'd,
But had there e're ſo fair been found,
Many a Semiramis would love us then,
And Centaures had out numbred men.

And indeed moſt of the Beetles are hideouſly black; yet I make no queſtion, but ſome of them have their caſe ſhining with a blacker, others with a more pleaſant green. There are alſo that ſhine like gold, and thoſe very great ones, which dig up the earth, and make their neſts there. Some there are which fly about with a little humming; ſome with a terrible & with a formidable noiſe, ſo that they would not a little fright one that is not aware of them. There are other differences alſo of ſhapes amongſt them: but their breeding in dung, their feeding, life, and delight in the ſame, this is common to them all. Another Beetle of a purple colour was brought to us from *Conſtantinople*, which (only that its eyes, belly, and feet were like pitch) was all over of a purple and violet colour. The black one, which lives in dry wood, is formed after this manner: It is all over black, or ruſſet rather, as if it were clad in mourning; its mouth is forked, its ſhoulders almoſt ſquare, its legs and horns ſomewhat ſhort; it ſeldome flies, but goes for the moſt part, and murmurs while it is going, as lewd ſervants uſe to do. The Tree-Beetle is very common, and every where to be met with, eſpecially in the moneths of *July* and *Auguſt*, after Sun-ſet: for then it flyeth giddily in mens faces with a great humming and loud noiſe, and vexeth cattel. Theſe Beetles ſpoil the leaves of trees, which they do not ſo much eat as tear in pieces out of an inbred malice; for they feed upon gnats. We call them *Dorrs* in Engliſh; the Dutchmen, *Baumkafer, Loubkaeſer*; *Jo. Agricola l. de ſubterr. Anim. Seukaeſer*; the French, *Hannetons*. The ſheaths of their wings are of a light red colour, and covered as it were with a very fine flower, otherwiſe they ſhine but a little; their legs, feet, and prickly tail are of the ſame colour: its other parts are all over brown: only that the circle about their eyes, and their little horns are yellowiſh, and of the ſame colour are they a little above the beginning of their tail, the joynts of their bellies are whitiſh. In *Normandy* they are much more numerous every third year, and therefore they call it *L' an des hannetons*. It is recorded in our Chronicles, that in the year of our Lord 1574. on the 24. of *February* there fell ſuch a multitude of them into the River *Severn*, that they ſtopt and clog'd the wheels of the Water-mils: and indeed, unleſs together with the induſtry of men, the Hens, Ducks, Goat-milkers, Caſtrels, Bats, and other Birds of prey (which ſeem to make theſe their dainties) had afforded their help, the Mills had even to this day been choaked with them and ſtood ſtill.

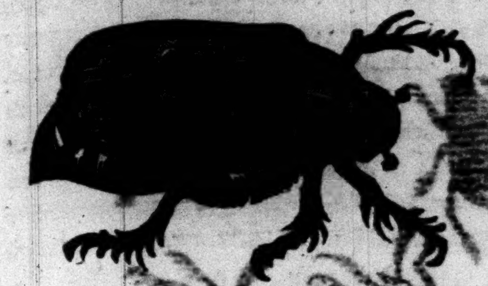






There is another taken to be of kin to this, of a colour all over between brown white, its belly gray and as it were hoary. Of what uſe it is in Phyſick I confeſs I know not. Fowlers indeed when they hunt for Ducks, bait their hook with two or three Dors or tree Beetles, and tye a heavy ſtone to their line, which they cover with flags, that their wiles be not diſcovered: the Duck for greedineſs of meat preſently ſwallowes the hook, which ſticking faſt ſhe is puniſhed for her folly. How Cranes are taken with theſe wrapped up in a gourd, he that hath a mind to know may read *Geſner de Grue*.

The Beetle which *Pliny* cals *Fulla* is more rare, and not every where to be met with. It is not any where to be ſeen here in *England*, ſo far as I have heard or read. *Gaza* ſometimes tranſlated that which *Ariſtotle* cals κάνθαρος, *Fullo*, whereas he alwaies intended that the Dung-Beetle only ſhould be known by that name, and he gave proper appellations to all the reſt. Neither can the Fuller-Beetle be called the red Beetle (as *Frigius* conſtrueth) nor is it a creature with a forked tail, which *Hadrian Junius* puts upon us for that *Fullo*: for the forked tail is not of the ſheath-wing'd kinde, as it ſhall appear more at large in the hiſtory thereof. This Beetle certainly is a fair one, bigger than the Tree-Beetle, but ſomewhat leſs than the female flying Hart: It hath a head almoſt horny, beautified with two little horns; its eyes and hairy breaſt are of a yellowiſh white, it hath feet coal-black; its belly and tail are like to Cranes feathers; its ſhoulders and wings are ſo beautifully wrought with black and white ſpecks, that you would eaſily ſwear it were a cloathing of Damask embroidered after the Phrygian manner. Magicians ſay, that this Inſect is a ſingular remedy againſt Quartan Agues, being bound to each arm, if we may believe *Pliny l.* 30. *c.* 11. *Pennius* firſt had the picture of it from *Carolus Cluſius*; but *Quickquelbergius* afterward ſent him over the creature it ſelf.

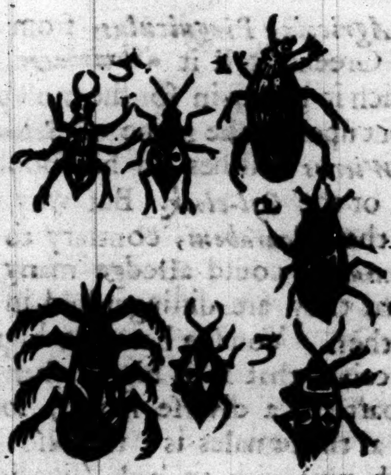


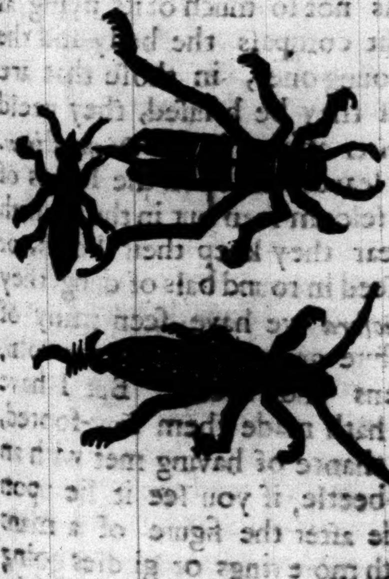
Chap. XXII.

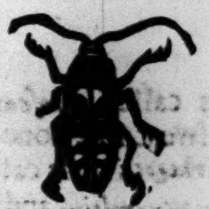
Of the leſſer Beetles.

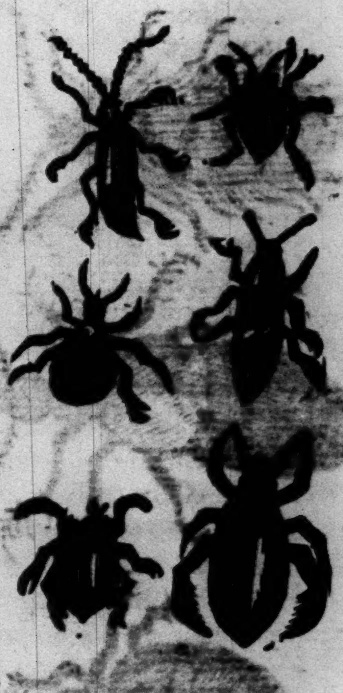
All the leſſer Beetles are either ſpotted in their body, or unſpotted: the Greeks call thoſe ἀλλοχρόους, divers coloured; and theſe μονοχρόους, of one colour. The ſpots of ſome of them are of a black colour inclining to white, others of them are yellow, others red. Of thoſe that are white from black there are ſeven kindes, of the yellow ones thirteen, of the red ones twelve; which we have here ranked every one in its ſeverall order.

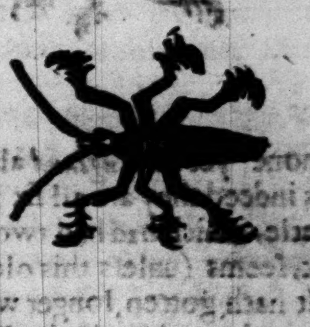
Thoſe that are unſpotted, are obſerved to be all over of the ſame colour: and of them we have ſeen ſix blackiſh ones, two of a bright bay, one round, one of a skie colour inclining to black, another between yellow and black. And one was very lately obſerved by us painted with a light red, another ſeem'd drencht in the juyce of the purple fiſh. We have five which are as yellow as gold, very little ones indeed, but coloured

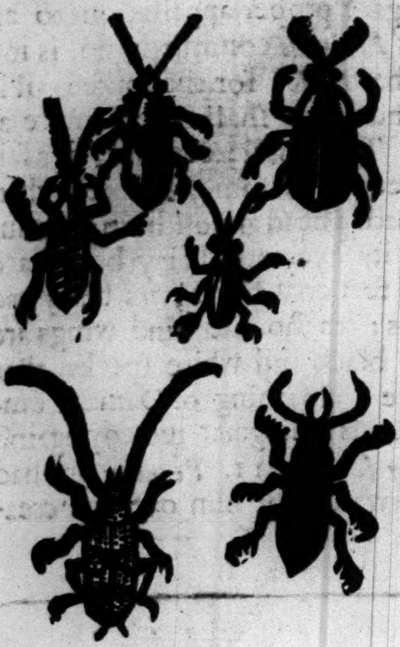




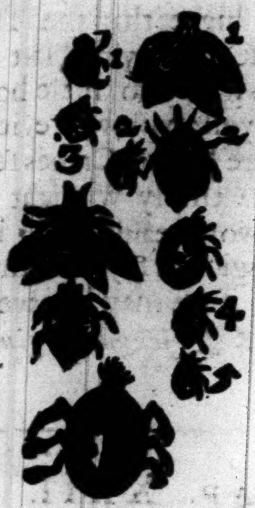


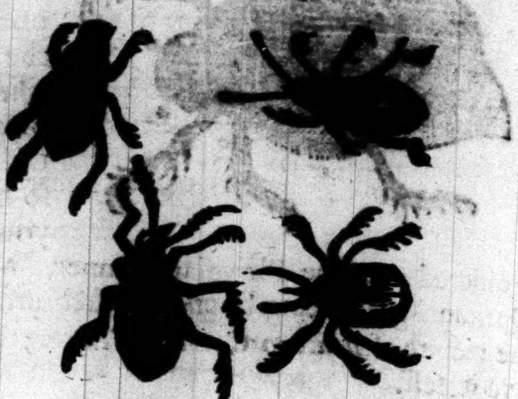






coloured all over with glittering gold, which, leſt we ſhould ſeem to have envied our poſterity (the knowledge of) we have cauſed to be cut and deſcribed here. But for what uſe every one of them ſerveth, was declared when we ſpake in general of Beetles.

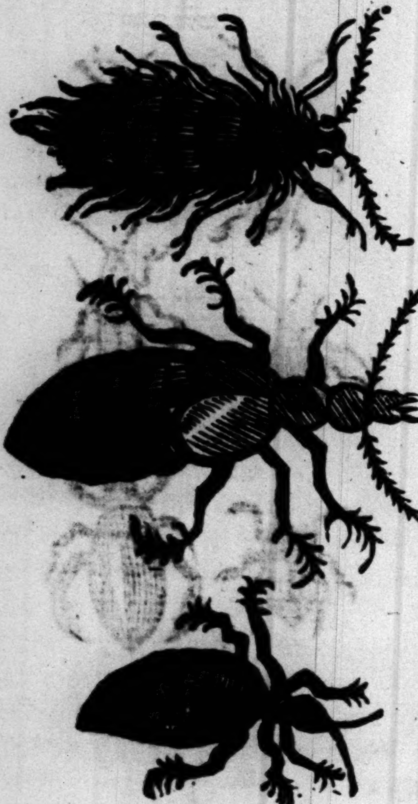




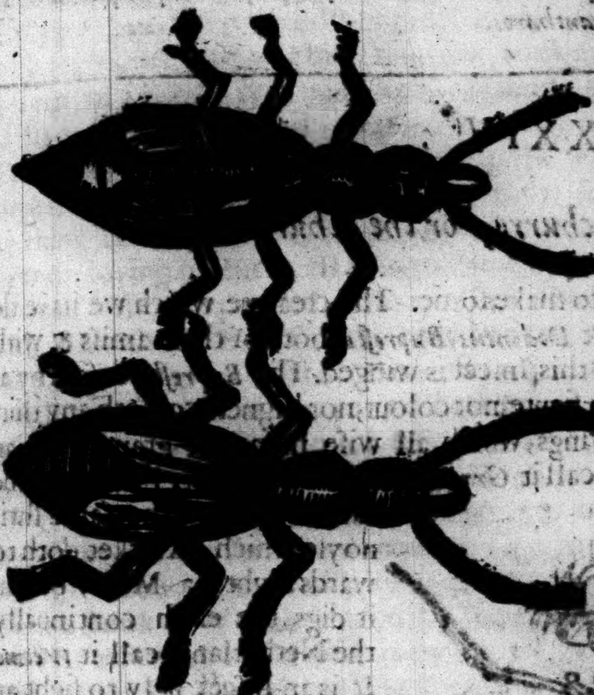
Chap. XXIII.

Of the Oyl-Beetle, and the Water-Beetle.

IT is called *Proſcarabeus* in Latine; in *Paracelſus, Moloe*; *Agricola, Pinguiculus,* from the fat ſweat like honey which plentifully drops from it. The Greeks call it [illegible] and [illegible]; it is called by the Germans from the moneth which it is ſeen in for the moſt part, *Mayen Wurmlein,* and *Meyen Kafer.* Thoſe of *Heidelburg* have put upon it the name of *Schmalts voghel*; thoſe of Dithmaria, the names of *Ever* and *Kadden,* (*Wierus* teſtifies in his Book *de Morb. incogn.*) in Engliſh it may fitly be called the *Oyl-beetle,* or the *Oyl-clock.* But why it is rather called *Proſcarabeus* than *Scarabeus,* contrary to the intention of *Geſner* and *Pennius,* I could alledge many reaſons, but this eſpecially, that they are diſtinguiſhed in ſex, and that they couple together. You ſee here the bigneſs of the female, and you perceive that it is bigger than the male, and for the moſt part of a diverſe ſhape; for its mouth is not at all forked as the females is; this alſo upon the lighteſt motion or touch, runs with an oyl, (like liquid honey) the male is alwaies obſerved to be as it were dry. They couple, as we have often ſeen it in *Heidelberg* fields, tail to tail; the female in the act drawing to it the male (after the faſhion of dogs) ſo that it is forced to creep backwards; they have both tender bodies, betwixt black and dark blew ſhining: upon whoſe ſhoulders there grow two wings, or rather beginnings of wings, as upon the Eſtrich, to help the ſwiftneſs not ſo much of its flying, as of its going; thoſe circles that compaſs the belly and the back, appear green in the young ones, in thoſe that are more grown, blew rather. If they be bruiſed, they yeeld a moſt pleaſant ſmell, as *Taxites* affirms in his *Onomaſticon.* it feeds eſpecially upon violet leaves, elſe upon the leaves of tender young graſs. They are ſeldom ſeen but in the moneth of *May*; all the reſt of the year they keep their holes, or having firſt wrapped up their ſeed in round bals of dung, they die. At *Heidelberg* and *Francford* we have ſeen many of them in the fields, in the paſture grounds, among the corn, and even in the very gardens and ſtreets. But I have found none yet in *England* alive and bred there. Only *Agricola* hath made them four-footed, whereas indeed they are all ſix footed, upon the miſtake perhaps, or chance of having met with an Oyl-beetle, which had had two of its feet pull'd off. *Wierus's* Oyl-beetle, if you ſee it lie upon its back, ſeems (unleſs this old man makes ſport only) to be made after the figure of a mans face. It hath gotten longer wings than the reſt, and is marked with more rings or girdles going round its body: otherwiſe it differs not from that ſpoken of before. The moſt noble Knight



Sir *Edmund Knivet* affirmeth that he ſaw in *England* the former kinde of this Oyl-beetle, and ſent us the picture of it; but could never finde that oily humour which the German one is full of. It comes ſhort of this likewiſe in all its dimenſions, either becauſe it hath a climate, or becauſe it hath a ſoyl leſs fit for growth. *John Wierus* writes thus of the uſe they ſerve for. In *Dithmarſia* towards the ſouth they hang the May-worm (for ſo he cals the Oyl-beetle) about the neck with a thred, eſpecially in the moneth of *May*, when that moiſture like hony (which is taken to be venemous) drops from it moſt plentifully: this Beetle (or ſometimes two or three) being dryed and beaten into powder they give with beer, puts the ſick perſon into a ſudden and great ſweat either with labour, or with many coverlets upon the bed, or in a ſtove or oven after the bread is drawn. Thereupon follow grievous ſymptomes, as a pain of the heart, an overthrow of all ſtrength, a weakneſs of the whole body, which for the moſt part laſt no longer than half a day: this they repeat every other day, or every third day (as the caſe requireth) untill the ninth. This drink they call *Anticantharidium* or *Kaddentrank*, becauſe it is made of Oyl-beetles. And truly for that epidemical head-ach (which *Placentius* at the end of his Chirurgery, and *Berptalia cap. de Vapore*, and perhaps *Avicen.* 4. *l.* 3. *Fen. Tr.* 2. *c.* 9. do define) it is ſaid to be an excellent remedy. The Saxons call this diſeaſe *Fitren*, or *Kadden*. *Paracelſus l.* 3. *c.* 6. *de morb. Tartar.* recordeth that he cured a Dropſie by a medicine compounded of thoſe Meloes and Radiſh ſeed: the making of it is after this manner: Take of Beetles called Meloes ten drams, Radiſh ſeed one ounce, make a liquor of it: the Doſe may be from one ounce to three ounces, if neceſſity require. He uſed alſo *Oppodelton Meloum* againſt hand worms, *lib. de vit. longa c.* 12. which after other medicines he preſcribed to be applied for the ſpace of twelve hours. If they be taken before the riſing of the Sun, and diſtilled (ſaith *Matthiola*) they are very good for healing [illegible] if the places affected be waſhed every day three or four times.



That oily fatneſs alſo healeth the chaps of the hands, as we have heard of the Countreymen about *Heidelburg*, who have more than once commended their wonderful vertues to us. They do ſtrongly expell urine, but withal, bloud. They cloſe up veins, and nervous wounds; they throughly cure horſes gals and bruiſes in the back which come by the badneſs of ſaddles.

Gaſparus Reglerus l. de Peſte, adviſeth to gather up twenty Oyl-beetles, yet not with your hands, but with two little twigs: then being put into an earthen pot or glaſs, let them be ſmothered in as much of the ſweeteſt Oyl-Olive as will ſuffice, and kept for uſe. He affirms that by being anointed with this Oyl Sores in the Groyn, Carbuncles, Peſtilential Sores, Botches, and wounds made by a mad Dog are cured. In another place he preſcribes, that we ſhould draw a circle about the ſore with a Saphir ſtone, and [illegible] Meloes, or of Juniper, as being that wherewith the venome is [illegible] and the part affected preſently reduced to its natural temper. [illegible] nameth a certain hairy Beetle of the colour of a Lion, and like one indeed in all things elſe but roughneſs. He contends that it is called by its proper name *Culio*; it is found in old hedges, and unregarded ditches and banks; this he writes is wonderful good for ſcabby eyes, and eye-lids which have been long fretted with a ſalt and ſharp humour, or eaten away with lice. Thus he ſheweth the way of uſing it: firſt gather betimes in the morning a colewort leaf wet with the dew of the night, and wrap it up ſo that all the dew run together to the bottome of the leaf, then having taken up his hairy Beetle with your fore-fingers and thumb, put it up inſtantly within the leaf, that its urine (which it preſently makes upon its being bruiſed) may be mingled with the dew of it; for otherwiſe its piſs, in which all the ſecret lieth will be loſt.

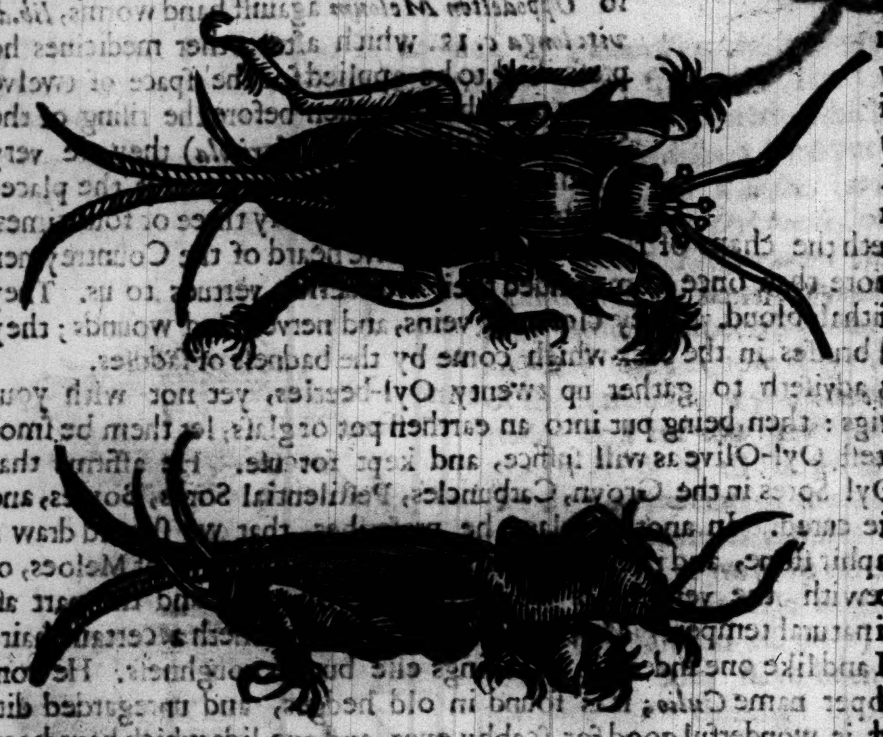
If with a probe you ſhall ſearch the eye-lids, and anoint the places which are ſcabby and eaten away, with its dew when it is now impregnated as it were with the piſs of this Beetle, you will confeſs its ſtrange and wonderful vertues. But what kinde or what manner of Beetle this is, I am altogether ignorant, nor can I call to minde any other Authors who have made any mention of it.

The Water-clocks do now challenge to have ſome room allowed them, which the Greeks call [illegible], the Germans, *Waſſer-kafers*; the Engliſh, *Water-clocks*. All theſe have their bellies coloured with a light red, and their backs coal-black, except that in *England*, in whoſe picture if you darken over all that border which compaſſeth about its ſhoulders and its whole oval body, and make its eyes of a ſilver colour, you cannot deſire more toward its deſcription. They have every one ſix feet, the hinder four exceeding the others in length and bigneſs, which they uſe as it were for oars when they ſwim; under their ſheathy wings which are very black, lye hid their membranous wings of a ſilver hew, with which by night, having left the water, they nimbly fly through the air, which by day they very ſeldome (or never) uſe. But the leaſt of all are thoſe, which with a reſtleſs motion run about in a multitude this way and that way upon the ſurface of the water without order, and play as it were together, and when the water is troubled, either they dive down to the bottome, or hide themſelves in holes of the banks: but afterward, as ſoon as the waves are ſtill and calm, they leap about it again for joy. *Chriſtophorus Lenſtnerus* writeth to *Geſner* that he found a Beetle in a certain place, (with a ſheathy cruſt (as they uſe to have) which had a head like an Ant ſomewhat yellow, and many wings, on the hinder part of the belly it had fins, ſuch as are upon Craps tayls, which they uſed as they wandred up and down (like rowers upon the water) it had a little tail ſticking out for its defence, but which was parted into very long hairs, being thrown out of pond water into fountain water, it died within a few daies. And thus much of Beetles: which, of countreys only *Olynthus*, of plants only the wilde Lilly, produce not: whereupon that is called by *Pliny*, *Theopompus*, and *Antigonus*, *Cantharolethros*: this by *Dioſcorides*, *Anticantharos*.

Chap. XXIV.

Of the Fen-Kricket, the Eve-churre, or the Chur[illegible]

GIve me leave here where names are wanting to make ſome. The creature which we have deſcribed is that which *Cordus* calleth *Spondylis*; & *Dodoneus*, *Bupreſtis*, both of them amiſs & without reaſon. For the *Spondylis* hath no wings, you ſee this Inſect is winged. The *Bupreſtis* [illegible] by all to be like the *Cantharis*; but this creature neither in figure, nor colour, nor bigneſs [illegible] any thing near it; to ſay nothing of its having no ſheathy wings, which all wiſe [illegible] the Cantharides have. [If we may make names, we may call it *Gry*[illegible] be- [illegible] the ſame ſhrill noyſe which a Kricket doth towards night [illegible] Mole, becauſe it digs the earth continually; the Netherlands call it *Weemol*. It is an Inſect ugly to ſight and monſtrous, four times bigger than the biggeſt of the Cantharides: eſpecially when it is pretty well grown. The ſhape you ſee before you: I will tell you the colour. The female is paler, the male of a deep brown; that hath beſides 2 long horns, 4 knobs hanging out as it were of it noſtrils and lips; it hath alſo bigger eyes, and the root of its wings is bedecked with a red ſpot. But the male is without thoſe buttons, and in ſtead of them hath two briſtles twice as long as thoſe buttons; it ſeemeth to be of the ſame colour all over, and without any ſpot; both their clawes are as black as a Raven; with their fore-feet which are very ſtrong and bending inward they both dig through hillocks, and make holes under ground, they ſtand upon their middle feet, and with their hinder feet, when need is, they leap; their tail is forked, their wings longer than their body, and membranous, their body variouſly joynted. The young ones for the moſt part are all over black, the old ones ſeem to be without hair: it liveth the greateſt part of its age under a mooriſh and moiſt ground, yet in the night it cometh abroad. It is a very ſlow-paced creature, and its flying is like leaping; whereupon it is reckoned by ſome among Locuſts. It begins to come forth as Krickets do when the Sun is going down, and pleaſeth it ſelf with its ſinging which is lowd enough and may be heard above a mile off: which as ſoon as the husbandmen hear, they are glad preſently: as though they knew by its coming, that the earth now teemed with moyſture, and were brought as it were to maturity by the heat of the Sun. It gathereth together grains of wheat, barly, and oats, and carrieth them into its neſt, being to live upon them perhaps in the winter. Some affirm that it feeds upon Horſe-dung. *Dodoneus* relates that this little creature kils cattel with its biting; falling into this miſtake, becauſe he took it to be the *Bupreſtis*. Whether it do any hurt being taken inwards I know not: but *Pennius* hath often handled it in his bare hands, and without harm, never obſerving in it any inclination to bite. Our *Brunerus* ſignified as much to *Pennius*, who hired Countreymen with his money to obſerve as often as might be its condition, and to make relation of it.



CHAP. XXV.

Of the Fire-fly.

THat which is called by *Ælian* πυρίγονος, other Greeks call πυραλλὶς, *Hermolaus* πυρωτὰς, ſome πυραύστας. *Ariſtot. l. 5. Hiſt. c. 19.* giveth theſe little creatures no proper name, but ſayes they are θηρία τὶ ἐν τῷ πυρί: which *Gaza* tranſlateth *Beſtiales fornacum*, Furnace creatures. *Strabo* reckons them among Gnats, they are called πυρίβια, by *Suidas*, and by the *Scepticks*, as we read in *Laertius l. 9.* *Solinus* calleth it *Caryſtia l. de mund. Mirab.* *Jul. Scaliger, Ignigena*; *Gaza, Furnaria*, and *Beſtiola Fornacum*, out of *Ariſtotle*, which he maketh bigger than the greater flies and winged: *Pliny* affirmeth the ſame *l. 11. c. 36.* *Antigonus l.* ἱστορ. παραδόξ. ſaith from *Ariſtotle* that theſe Fire-flies are bigger than Mice (not Flies only); where it is evident he foully miſtook μυῶν for μυιῶν, Mice for Flies; which *Xylander* his Tranſlator took no notice of. In ſhape it is ſomewhat like a very big Gnat, of a bright fire-red colour, glittering with a kinde of fiery raies; it leaps, goes, flies, and lives in the flame, as *Ariſtotle* reporteth, *l. 5. hiſt. c. 19.* For I can ſcarce give credit to *Ælian l. 2. Hiſt. c. 2.* when he ſaith that the Fire-fly as ſoon as it hath gone out of the place where it was bred, and flown into the air for food, dieth preſently: for I cannot believe that any thing bred in the fire, goeth out of its element to ſeek for food; nor is it likely that Nature, that moſt loving parent of all things, ſhould preſcribe any creature ſuch a way of getting its food, by which it ſhould preſently loſe its life. Neither is it, as it ſeems to me, ſo hard to finde out the reaſon of this their ſudden dying in the air (which *Ælian* leaves to be ſearched out by others) for being bred in the extremity of heat, how ſhould they live in a temperate place? For it is evident by daily experience, that ſome Fiſhes dye as ſoon as ever they are taken up out of the water into the air; much leſs can thoſe creatures that are bred in the fire, endure the air, ſince it differeth ſo much from the air, and indeed more than the air from the water.

These Flies are bred in the Braſs Furnaces of the Iſle *Cyprus*, where the *Chalcitis* (or Braſs-ſtone) is burnt for many daies together: perhaps the ſooty vapours which go up with the flame, while the ſtone is continually burnt, are the matter and cauſe of their generation. *Strabo* ſpeaking in his 12 Book of Worms bred in the ſnow, addeth this which followeth: Τὴν δὲ γένεσιν τῶν θηρίων παραπλησίαν εἰκάζουσιν, οἵαν τὴν τῶν κωνώπων ἐκ τῆς ἐν τοῖς μετάλλοις φλογὸς καὶ τῶν πετάλων: They conjecture that the generation of theſe creatures is like that of Gnats, of the flame from metals and plates of braſs; where any man may ſee the error of the Interpreter, for he renders it thus: *Horum animalium generationem talem putant, ut culicum ex flammâ & bracteâ metallorum.* For they are bred in the flame (as *Scaliger* ſaith) not in *maſſa*, that is (as I interpret it) in the fire which is condenſed together: nor doth any thing forbid but that the moſt dry animals may be generated in the moſt dry element (for there is mixtion there alſo) as the moiſteſt are in the moiſteſt; for we have no pure fire with us. But what hinders but that living creatures may be generated of matter ready for them, or what natural reaſon contradicteth it? They anſwer, that fire deſtroyeth all things, corrupteth all things. But they which have had but any taſte of the ſecrets of Philoſophy, do evince that to be falſe by clear demonſtration and experience. For ſo far is our fire from deſtroying or corrupting all things, that it even perfecteth ſome. It doth not corrupt nor conſume gold, nor ſome ſorts of metals, not aſhes, not the ſtone *Amiantus* which is very like *Sicil* Allum; nor ſome other things which I will not now ſtand to reckon up for thoſe froward mens ſakes. What then ſhould hinder fire from having the power of generating, ſo it be in a fit and convenient matter? its very drineſs cannot hinder the generation from coming to effect; becauſe it proceedeth from the form; but fire is the matter and the forms inſtrument for ſome operations. Beſides, our fire hath alwaies ſome moiſture joyned with it; for it would not take flame nor burn, if it were not cheriſhed with a fat moiſture; for certainly thoſe things are neither without earth nor water, which are generated in our tereſtrial fire. *G. Agricola.* But if this were not ſo, becauſe fire putrefies not; yet there is no reaſon we ſhould doubt but that generation may be effected by the fire, as by the form in its proper matter. For unleſs there were moiſture in metals, they would not melt; what therefore ſhould hinder nature, but that it may give this a form? *Ariſtotle* maketh the queſtion, Whether in the ſphere of the fire (which is next to the Moon) there be generated any living creatures? and he ſeemeth to be in doubt, and putteth off the queſtion until another time; but when he affirmeth that the *Fire-fly* is generated in this fire of ours, I ſee no reaſon, why any ſhould doubt of it: yet there are ſome very learned men, and eminent writers of our time (who ſeem nevertheleſs to excel rather in wit, reading and language, than in the ſolid knowledge of things natural) who condemn and reject not only the generation of theſe little creatures in the fire, but this whole hiſtory as frivolous, falſe, and unworthy of a Philoſopher. My readers expect now, that I anſwere theſe mens arguments.

The Name.

They object that *Ariſtotle* doth in plain terms affirm, that the fire produceth no living creature. The Philoſopher doth there compare the heat of ſeed with the heat of fire, affirming that there is not a fiery heat in ſeed; for (ſaith he) if there were, it would produce nothing. But this hinders not, but that a living creature may be generated in the fire without ſeed: but of ſome other fit and convenient matter, as we ſhall ſee anon. Beſides, the Philoſopher ſeems here (as likewiſe elſewhere) to ſpeak of that fire only which is under the ſphere of the Moon, that that produceth no living creature; not of ours, where there is both mixtion, and no pure fire. But they yet urge: Our fire is *Subſtantia* λεπτομερεστάτη, a ſubſtance of moſt ſubtil parts, and ſeizeth upon all things that are in its way, devouring them and turning them into its own ſubſtance. This was anſwered before when we inſtanced in ſome things which are rather perfected in the fire, and which fire is by no means able to conſume or turn into its ſubſtance. *Jo. Langius* (a man of much reading, and a moſt learned Philoſopher) and from him *Cardane* grants that ſome Animals may live in the fire, but not that they can be bred there; for in this they yeeld to the Philoſopher. But who ſeeth not how abſurd this yeelding is? for I cannot ſee how things generated in a temperate place, ſhould be able to live in that extreme. For that which they ſay of the Salamander, is as good as nothing. The Salamander (as *Dioſc.* hath obſerved) doth not live long in the fire: for as ſoon as that moiſture, which runneth down on every ſide from its yellow ſpots (as I conceive) while it ſtaies in the fire, is conſumed (which is quickly done) it is preſently brought to aſhes, as *Pennius* hath made trial with our *Bruerus* in the Countrey about *Heidelburg*. *Eraſtus* a moſt learned Phyſitian, diſputing about rotten Feavers, endevoureth to overthrow all this Hiſtory with theſe arguments. Firſt, becauſe *Ariſtotle* compileth the Hiſtory (ſaith *Eraſtus*) who, it is confeſſed, writ many things from hearſay; I grant it: but then he adds, *ut aiunt*, as it is reported, or ſome other word of the ſame importance (as *Niphus* hath well-obſerved) even as in that very place, ſpeaking of the Salamander, he addeth, ὥς φασιν. We may obſerve that this is the conſtant practiſe of the Philoſopher, when he ſpeaks according to the opinion, or from the relation of others; but grant it were ſo, that he from others related it; they were deceived (ſaith *Eraſtus*) who related it to him; imagining thoſe creatures bred in the fire, which fell by chance into it. But the circumſtances of the place make it appear that this is falſe. If they had fallen from elſewhere into the fire, ſurely by his own confeſſion they would be conſumed by the fire. And unleſs they had been bred there, (as I ſaid before) how ſhould they be able to live in ſuch an extremity of flame? Beſides, ſpectators have obſerved the motion of their feet, the number of their wings, their flying, yea their death, and the cauſe of their death, *viz.* their flying ſomewhat too far out of the fire. Theſe things and the like evince that thoſe relators were not at all deceived, but that they related what was true and unqueſtionable. But no Author either before or ſince *Ariſtotle* affirms this, but one or other perhaps who hath tranſcribed it from him. This is more (*Eraſtus*) than you know, you have not read all Authors Books: the greateſt part of books is loſt, as it appeareth plainly out of *Athenæus*, and Hiſtories bear witneſs. But how I pray you, came *Pliny* to be aſſured that Fire-flies have four feet? He did not learn this from *Ariſtotle*, nor is there any ſuch thing to be found in his writings which are extant. Wherefore either he learnt it from others, or elſe the Hiſtory was known in *Pliny*'s time. *Pliny* therefore added this, that he might make up the Hiſtory compleat. Nay, if you had read *Cicero l. de Nat. Deo.* you had found him affirming for certain, that there are little winged creatures bred in the middle of the fire. Neither did I before think you ſo ignorant in Theology, as not to know what S. *Auguſtine* (*l. de Civit. Dei* 21. *c.* 2.) hath obſerved of theſe *Pyribia*: There are, ſaith he, creatures which live in the midſt of the fire; and there are found ſome worms at the Spring-head of hot waters, whoſe heat no man toucheth without harm: while theſe remain there not only without receiving any hurt, but are not able to ſubſiſt out of them. And *Vincentius hiſt. Nat. l.* 20. *c.* 68. In ſome waters which are naturally hot, there are certain Worms which live as well as Fiſhes in cold: nay if they go out of thoſe waters into cold they die. *Solinus* alſo confirmeth it *c.* 17. who calleth theſe kinde of Flies *Caryſtiæ*, and reporteth that in *Crete* they fly into hot furnaces without harm. Yea and *Seneca* (*queſt. natural. l.* 2.) affirmeth that ſome living creatures are generated of the fire; and therefore theſe Fire-flies likewiſe; as lately *Marſilius Cognatus* teacheth us in a large Diſcourſe, *Variar. obſerv. l.* 1. *c.* 23, 24. Do not then any longer contend, that no Author either before or ſince *Ariſtotle* affirmeth it; ſince beſides theſe pious and grave men already named, I can bring others alſo, who would convince you either of plain falſhood, or of a levity not hard to be diſcerned. But *Theophraſtus* maketh no mention of it in his Book *de Igne*. What do you conclude, *Eraſtus*, from thence, that the Hiſtory is falſe? Very fine. Perhaps he beleeved it not; is it therefore falſe? But it is probable. I grant it. There are many things probable, and yet falſe, as experience teacheth us. *Eraſtus* wrote many things againſt *Paracelſus* which are probable, yet not all true, unleſs thoſe things which he underſtood not, be true. Certainly he endevoured to confute many things, which I know he never underſtood: I will not now deſcend to particulars. Well, but the heat of fire is not γόνιμος, fit for generation. This, *Eraſtus*, you apprehend not; but I told you before, that if it were in the ſeed, it were not; which was the Philoſophers meaning. For it is φθαρτικὸν, *corruptive*, according to *Ariſtotle*: But I anſwered before, that fire doth not corrupt all things. This barrenneſs therefore, or (if you pleaſe) deſtructiveneſs of the fire is to be limited. Nor truly do I conceive this to be done miraculouſly, but by the power of Nature; neither do I take it for a tale, but for a Hiſtory agreeable to nature. And as for what he writeth of the Salamander, he adds ὥς φασι, as I ſaid before: there was no need to add it. But I beſeech thoſe who believe nothing but what they ſee, to tell me, Have any one of the ancients found fault with this Hiſtory, or confuted it? I ſpeak of the Greek writers. No, not ſo much as *Galen*, who otherwiſe is a moſt ſharp reprehender of the Philoſophers, and would have laid hold on this inſtantly, if he had had any ſuch opinion. Therefore it is likely that the hiſtory is true, becauſe none of the old writers found fault with it. But come we now to *Matthiolus*, who of all men hath contradicted this Hiſtory moſt unhappily; for in his margent he inveigheth againſt the vain opinions of the Philoſopher (as he thinks) where he appears in ſome things vainer than vanity it ſelf. But I will return to the buſineſs. It is againſt (ſaith he) the work of nature. Is it enough for *Matthiolus* to ſay ſo, though he prove nothing? If the ſtory had been true, *Galen* would never have omitted it, who hath ſearched out all things elſe ſo diligently, furnaces, and metals, and what not? *Julius Scaliger* will make anſwer, to what end ſhould he repeat a thing known before? Sooner would he (as he was a famous and a malicious detracter) if he had not found it ſo, have reprehended it, as he doth in ſome places make it ridiculous. He which continued ſo few daies, did not underſtand the whole matter; they were not, they are not alwaies at hand; he never enquired of the Bakers. But if I ſhould ſay that a little ſhe colt newly foaled ſhould have plenty of milk in its udder, and that it did iſſue forth in great quantity, what would they ſay then? yet neverthele ſs I ſaw it at *London* about ſix years ſince, as alſo many others of good note and credit, who with their own hands did milk it out of its teats. They will ſay perhaps, we do not believe it; let then chuſe, it makes not much to the matter; there are many productions of nature, the cauſes whereof it is impoſſible for any man to know, much leſs to ſhew to others. And that certainly not without great reaſon, that we might both admire the infinite power of God, and acknowledge our own blindneſs and ignorance. For theſe and the like did God create only for his glory, that he might both confound the ſhallow underſtandings of men, and alſo learn them to acquieſce in his wiſdome only, for ſo much as in ſearching out the natural cauſes of things, it is impoſſible to go any farther. For this is amongſt the works of God that may pluck down our ambition, and makes us with all our wit to fly to that common Anchor of fools, namely hidden cauſes and the whole ſubſtance. What have we then to do? ſurely only to apply our ſelves unto him, from whom all wiſdome, knowledge, and perfection doth proceed: for whileſt we relie on our own wits, and do pry into the Majeſty of God, we muſt needs (as *Solomon* in his Proverbs ſpeaketh) be confounded by the ſame. What then remains? this ſurely, that they which think theſe things to be impoſſible, do keep their opinion to themſelves, without medling with thoſe that think the contrary.

The Author of the *Geoponicks* (if I am not deceived) cals this little animal a Salamander: his words are theſe: Σαλαμάνδρα τὸ ἐλάχιϛον ζῶον ἐκ τοῦ πυρὸς ἔχει γένεσιν, *&c.* that is to ſay, *The Salamander that little creature is begotten in the fire; and living in the fire, is not conſumed by it.* Here he tels three untruths together. For neither is this the leaſt of creatures, but oftentimes bigger, ſometime leſs, neither is it generated by the fire, nor doth it live long in the fire, as I ſaid before, out of *Dioſcorides.* Thus much I thought good to add, leſt young ſtudents reading thoſe *Geoponicks* ſhould erre ſo foully with *Zoroaſtes.* For what purpoſes it ſerveth, I cannot boldly ſay: yet by its place of growth and principles it ſeemeth to dry and cleanſe powerfully. It is alſo of very thin parts and body; it pierceth to places very diſtant: and truly if the Graſhopper which feedeth upon air, be of ſo burning a faculty; what ſhall we think of the Fire-fly, which eateth and drinketh flames? But the Fire-flies are of this uſe to our mindes: they repreſent to our underſtanding the wonderful power of God, who hath made the greateſt of all the Elements, Fire, ſubject to ſo ſmall, ſo dry a creature: vouchſafing to be vanquiſhed by theſe while it ſcorneth, I do not ſay to be vanquiſhed (to uſe *Majolus*'s words, *Dier. Canic. Colloq.* 5.) but even ſo much as to be touched by men, or the greater Animals.

Chap. XXVI.

Of the Water-Spider.

THe Water-Spider is next, a little creature of exceeding nimbleneſs, whoſe Hiſtory Authors have ſo ſlightly handled, that we can hardly pick out any thing of weight or moment towards the illuſtration of this Hiſtory: we ſhall yet perform what we can.

I utterly deny Ἀκαρεις in *Ariſtotle*, to be the ſame with *Tipula* in *Plautus* (as *Gaza* interprets it) for I am not perſwaded that Mule-gnats can come of them.

It is called in Latine *Tipula*: *Plautus*, *Feſtus*, and *Nonius Marcellus* write it *Tipul*; others, **The Name.** *Tipulla*; *Guillerinus de Conchis* reads *Tapula*; *Albertus* and *Vincentius* in his *Speculum*, call it *Tappula*: none of them aright. By *Plautus* it is called *Tipula*; in Greek (as I found in *Geſner*'s papers) πιλύλη, which word truly I finde not any where any footſteps of, nor can I tell what it properly ſignifies; ſome High-Dutch call it *Waſſer-gems*, which is to ſay, a Water-goat; others *Waſſer-ſpin*, which is a Water-ſpider; the Nether-lands, *Waſſer-ſpinne*; with us it is called the *Water-ſpider*, as with the High-Dutch and Netherlands, for likeneſs ſake; in Spaniſh, *Guſano que corre ſopra el aqua*, a worm that runs upon the water; in Italian, *Capra di aqua*; in Polonian, *Woodny cieluck.*

There are two ſorts of Water-ſpiders, the greater and the leſs. They differ in bigneſs only, or perhaps in age: the greater are more common in coldeſt waters, the leſs are ſomewhat more blackiſh and of a more compact body.

The greater more inclines to an aſh-colour, being of a larger body.

Although ſeverall men write ſeverally, and neither tell any certain marks whereby it may be known, nor agree in the number of its feet, yet I hope we ſhall ſo clearly and perſpicuouſly explain the Hiſtory of the Water-ſpider, that there will be no occaſion of doubt left hereafter.

The Deſcription.

The Water-ſpider is a little creature, in ſhape very like a Spider, of a body ſomewhat long and ſlender: it hath four feet faſt to its breaſt, and two little armes ſtretched out before near its mouth, perhaps in ſtead of horns; which if you reckon with its feet, it will have ſix feet: which yet (ſo far as we could obſerve) it uſeth not when it runneth: they are as ſhort again as the reſt of its feet, neither have they any knots or joynts like the other feet. Therefore *Albertus* and others allow but four feet to the Water-ſpider: but *Feſtus* ſix, reckoning theſe little armes together with its feet. It hath four wings, very feeble ones, which ſeem not to be made for flying, but for leaping. They are ſhorter than its body, and the uppermoſt of them a little thicker and larger than the others, but yet not of leather (like thoſe ſheathy caſes) they are between a brazen colour and a black; the inner wings are leſſer and thinner, and of a ſilver colour. Whether they fly by night like Water-beetles or no, we are uncertain; they leap ſometimes upon the water ſo lightly, that they ſcarce ſo much as ſtir the ſurface of it. Hence grew that proverb among the Ancients, *Lighter than a Water-ſpider*. So *Pierius* being to expreſs the lightneſs of men; and *Virgil*, the nimbleneſs of *Camilla*, compare them to the Water-ſpider. *Plautus* likewiſe in his *Perſa*, *Neq; Tipula levius eſt pondus quam fides lenonia* (for ſo *Lambine* reads it, againſt the conſent of all copies, even that of *Nonius*) *A Panders honeſty is lighter than a Water-ſpider*: It runneth not in a continued courſe, but with intermiſſion. It goeth not under water, but when it is driven thither by force: its body is never wet. They are found all the Summer time in ſtanding waters and ponds which are free from the wind, and quiet: ſometimes alſo they are met with in rivers, eſpecially cloſe by the banks of great rivers, and for the moſt part under the ſhades of trees (as of the willow, or any other tree, (which is not over tall): moſt commonly multitudes of them are together in companies. They are ſeen ſometimes to couple leaping on one anothers backs, but they make an end of engendring very quickly. One ſhall hardly finde any one of them in Winter.

Their Uſe.

Whether they be of any uſe in Phyſick, beſides the common uſe Flies are of, we leave for others to make experiment: for we know of none; neverthеleſs we utterly deny that theſe little creatures were brought forth by nature to no purpoſe. Certainly the Gudgeon, the Rochet, the Pearch, and other inhabitants in the dominions of the waters do ſufficiently declare how uſeful they are for the feeding and fatning of Fiſhes. Without queſtion *Feſtus*, *Nonius*, *Marcellus*, *Sipontinus*, and others, meant this Water-ſpider now deſcribed, as it will appear by their words. The *Tipula* (ſaith *Feſtus*) is a kinde of little creature, having ſix feet, but ſo light, that in running upon the water it ſeemeth to take no ſteps. *Perottus* ſaith upon the matter the ſame. The *Tipula* (ſaith *Nonius Marcellus*) is a very light creature, which doth not ſwim but go upon the water. *Varro* thus: *Levis Tipula leviſſime frigidos tranſit lacus*: for ſo the place which is corrupted, is to be read and corrected: *The light Water-ſpider very nimbly paſſeth over the cold ponds.* *Albertus Guillerinus de Conchis*, and *Vincentius* call it *Araneus Aquaticus*, interpreting the Dutch name (for it hath ſome likeneſs with the Spider) aſcribing but four feet to the Tipula, not reckoning the little arms which are before, among its feet, ſince it doth not uſe them in going. Others (as I ſaid before) reckoning thoſe little arms among their feet do allow Water-ſpiders ſix feet. Hence it does moſt certainly appear, that we have deſcribed that very Tipula which *Plautus* mentions, ſo that there is no room left for any ones doubting hereafter. But before we go any further, the truth requires of me, that I confute two notorious errors of *Guillerinus de Conchis*. The firſt error is, when he ſaith that the Water-ſpider lives alike upon the water and upon the land: the other, when he ſaith, that it runneth very ſwiftly upon land; both which do evidently contradict experience: for upon land it doth not live long, nor run at all, but move with a very ſlow pace, and ſometimes leap, but that very little.

Whether *Catrab* in *Avicen*, which is called by *Silvaticus*, *Cutubut* and *Eckentubut*, be the Water-ſpider (as *Wierus* thinketh) I cannot ſay for certain: although indeed I am eaſily perſwaded by reaſon of the circumſtances, to believe that *Catrab* in *Avicen* is not the Water-ſpider. But let us hear *Avicens* deſcription: *Catrab* (ſaith *Avicen*) is a little creature having its being on the ſurface of the water, which moveth upon it divers waies without order, and diveth ever and anon to the bottome, and preſently appeareth above again. *Sylvaticus* hath almoſt the ſame word for word: only he adds, that whenſoever any thing happens amiſs to it, it runs away, and by and by appears again. From this little creature by reaſon of its reſtleſs and diſordered motion, hither and thither, that kinde of melancholy which the Greeks call λυκανθρωπία, the Latines *Inſania Lupina*, is called by *Avicen*, *Cathrab* and *Alcathrab*; with which when men are taken, they fly from the living, and go out by night, and frequent graves (as *Paulus* writes) and think indeed that they are turned into Wolves, as *Wierus* writes it befell a certain husbandman in *Germany* in the year 1541. The Ancients (ſaith *Wierus*) call a fly which is common in mooriſh grounds, *Tipula*. And we think *Manardus* made mention of this ſomewhere in his Epiſtles. Wherefore I am fully perſwaded that *Catrab* is not this Water-ſpider, but ſome other little creature, the leaſt of the kinde of Water-beetles, which with a reſtleſs motion moveth almoſt continually upon the ſurface of the water hither and thither without order (as we ſaid in the Hiſtory of them) and upon the leaſt diſturbance or ſtirring of the water, goeth to the bottome, and preſently hideth it ſelf in the mud, but by and by aſſoon as the billowes are down, riſeth up again to the ſurface of the water. This little creature is ſeldome ſingle, but many of them ſport together in the ſame place, running up and down ſeveral waies. I was once wont to behold with great delight theſe little very black and ſhining Beetles pulling one another, and as it were wreſtling together. But of theſe we have ſpoken at large among the Water-beetles.. And we ſhall take *Gaza*'s Tipulæ into our conſideration among the Water-worms.

The word *Aſcaris* which they interpret Tipula, maketh nothing toward the illuſtration of this Hiſtory.

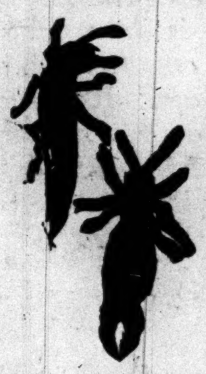
CHAP. XXVII.

Of the Forficula, or Earwig.

The Name.

The difference and deſcription.

ARnoldus his *Forficula*, is called by the later Latine writers, *Auricularia*; by the more Ancient, *Mordella*: *Niphus* cals it *Vellicula à vellicando*, from rending; the French call the Earwig *Aureilliez*, or *Perceaureille*; the Germans, *Oren-worm*; the Low Dutch *Orenmetel*; the Engliſh, *Earwig*. *Hadrianus Junius* thinks it to be *Fullo*, which notwithſtanding much differs from the form of a Beetle. Is this the Greeks ὀρσοδάκνην? truly both the original of it and the biting agree thereunto; for this is bred alſo in the hollow ſtalks of herbs, (as of the wilde Parſnip, Angelica, Fennel Gigant) and is frequently ſeen in Coleworts. The Northern Engliſh by an obſcene name call it *Twich-ballock*, as if you would call it *Scrotomordium*, or ὀσχεοδάκνην, for where ever it findes a rivled pleated skin, it will cauſe very great pain, either by biting with the mouth, or by winding about it with its forked tail; which *Pennius* ſaith once hapned to him being a boy. For we fell upon two ſorts of Earwigs, both were with wings, contrary to the opinion of many. For if you force them here and there back again with a bull-ruſh, when they are hem'd in in ſome place or upon a table, (which the moſt illuſtrious *Knivet* taught *Pennius*) they will preſently open their wings that are hid under their covers, and fly away. But you muſt take diligent heed that you preſs it not too hard with a ſtraw or or ruſh, or wound it, for then if it would never ſo fain it cannot fly away. The more common is ſeen with a light red colour; his foreyards, feet, and forked tail are yellow. The other (which is more rare in *England*, and was ſeen by me but once or twice) is greater than the former, and of a blacker body, hath a ſilver ring about the neck to adorn it; the outward covers of the wings are of a reddiſh colour: the mouth is forked and yellow; on the back on both ſides near the ſides, there ariſe five yellowiſh ſpots, the fork of the tail is ſhort and black, and ſhe lifts this toward her head and flies, being angry, into the air.



Their Uſe.

*They are oft found in Coleworts and hollow Reeds, and in the little bladders of Elm leaves. They breed of worms that breed in the ſtalks: they yearly caſt their old skin, and that being gone they look white as ſnow. But with age it growes again, and is died with its ancient colour. The Engliſh women hate them exceedingly, becauſe of the flowers of Clove-gelliflowers that they eat and ſpoyl, and they lay ſnares for them thus: They ſet in the utmoſt void places Ox-hoofs, Hogs-hoofs, or old caſt things that are hollow, upon a ſtaff faſtned to the ground, and theſe are eaſily ſtuft with cloathes or ſtraw; and when by night the earwigs creep into theſe to avoid the rain or to hide themſelves, in the morning theſe old caſt things being ſuddenly taken away and ſhook forth, a great multitude of them fals out, and are killed with treading upon them. *Arnoldus Breviar.* 1. *cap.* 25. bids us to boyl them in common oyl, or oyl of Hearts-eaſe, and with that to anoint the arteries of ſuch as are in a Convulſion, both their temples and wriſts, to cauſe a Feaver, which is a remedy for a Convulſion. *Joſephus Michaelis*, an Italian and a famous Phyſician, is wont to collect a great number of them, and to bring them to a fine powder in Balneo in a glaſs very cloſe ſtopt. Then he mingles as much powder with Hares piſſe, that he may pour into the ear morning and evening. He often proteſted to *Pennius* that this was a ſecret to cure deafneſs. Others mingle the powder with oyl of Cloves and uſe it as before. The ſmaller *Gallinago*, (which the Engliſh call a Suite) and Hens feed on Earwigs: and I well remember that I have found a great number of them in their Mawes.

CHAP. XXVIII.

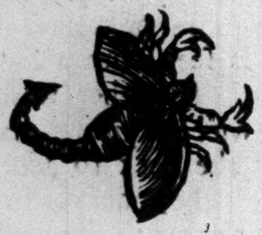
Of the Scorpion, the Ant, and flying Lice.

L. 11. c, 25.

ARiſtotle *4. de partib. c. 6.* denieth that Scorpions have wings, Scorpions (ſaith he) move not flying, but going. But latter ages ſince him have ſeen and acknowledged ſome of them to be winged. *Apollodorus* (witneſs *Pliny*) relateth that ſome of them for certain have wings, which *Nicander* alſo hath recorded. *Panſanius* in *Bœotic.* ſpeaking of winged Serpents, hath theſe words: Neither ought any one to be too forward to believe thoſe things, which Nature more rarely repreſenteth; nor yet to be altogether incredulous concerning them: I never ſaw any where flying Serpents, yet am I eaſily perſwaded to believe that there are ſuch, becauſe a man of *Phrygia* lately brought into *Ionia* a winged Scorpion of the Locuſts kinde. *Paramenes* alſo *l. de Beſt. Venenatis in Ægypt.* reporteth that he ſaw, not with other mens eyes, but with his own eyes, Scorpions with wings, and armed with a double ſting in their tail. With whom *Ælian* agreeth *l. 16. c. 42, 43. Megaſthenes* hath recorded that there are ſome in *India* among the *Praſii*, which have wings, and are ὑπερβάλλοντες μεγέθει, exceeding great ones. In *Africk* likewiſe there are ſome winged, and others without wings; having ſeven joynts in their tails, ſaith *Strabo l. 15. Geogr. & l. 17.* The *Pſylli* (ſaith *Pliny l. 11. c. 25.*) have often endevoured to bring them over into *Italy*, but they were not able to live beyond the climate of *Sicily*: yet there are ſeen of them ſometimes in *Italy*, but harmleſs ones, and in many other places, as about *Pharus* in *Ægypt*. We read alſo in the Hiſtory of Navigations, that *Jambolus* the *Portugal*, while he ſtayed at *Palimbrota* (it is a City ſituate by *Ganges* towards the Eaſt, and according to *Diodorus Siculus* built of old by *Hercules*) ſaw there great ſtore of winged Scorpions.

The Name.

It might be called in Latine, *Nepales quaſi Nepa alata*, for ſo *Plautus* cals the Scorpion in *Caſina*, when he ſaith, *Receſſim cedam ad parietem, imitabor nepam.* So again *Cicero 5. de Finib. Nepas aculeo uti videas. Varro* alſo and *Columella* do very often call the Scorpion by that name, although *Feſtus* underſtand by it a crab. *Nonnius* writeth that that name was borrowed from the Moors, by whom Scorpions were firſt called *Nepa*, and brought into *Italy*. Thou ſeeſt



here its ordinary bigneſs and ſhape; It is of a colour very like honey, whereupon it is called μελίχλωρος. The laſt joynt of the tail in this kinde is black, armed with a double ſting, as if one could not do miſchief enough: it hath wings like the mandible of the Locuſts, it goes obliquely and after the manner of a Crab; it is very hurtfull to men, eſpecially to young men and boyes. *Ælian* attributes to it a glittering red colour, and calleth it flame-colour. Its poyſon being hot, cauſeth extream heat; which happeneth otherwiſe in the Scorpions which have no wings. It kils Lizards, Adders, Spiders, Whirls, and all kinde of Serpents, *Ælian. l. 8. c. 13.* This kinde of Scorpion likewiſe being applyed to a wound made by it ſelf, healeth it, as others do: and if the ſmell of one of them burnt come to other Scorpions, it driveth them out of a houſe.

Its Generation is after the ſame manner with theirs that have no wings, of which we ſhall treat at large in the ſecond Book.

The Ant is called by the Latines *Formica à ferendis micis*, from carrying grains of corn, ſaith *Iſidore*. The Greeks call it μύρμηξ, μύρμηκαν, μύρμον, βορμάκα, ὅρμικας, and φόρμισγας, by *Heſychius* and *Varinus*; it is called in Hebrew, נמלה; in French, *Fourmis*; in Engliſh, *Ant, Emmet, Piſmire*; in Spaniſh, *Hormiga*; in Italian, *Formica*; in the Sclavonian and Polonian Tongues *Mrawenecz*; in the Illyrian, *Mpowka*; in Low Dutch, *Miere*; in Flandrian, *Labnets*; it Dutch, *Omays, Omnes, Eims.* Now ſome Ants are winged, ſome without wings. One of the Greeks call thoſe that are winged (of which only we treat in this Book) νύμφας; another cals them σέρφοι; they are named by *Ariſtotle* ἱππομύρμηκες, and ſimply ἱππεῖς, *l. 1. de Anim. part.* by the Latines *Equites*, becauſe of their exceeding ſwiftneſs, wherein they excel the others.) They are of a larger body and bigger limbs than thoſe that go and have no wings, (whereupon *Pliny*, if I miſtake not, call'd them *Herculane*) and of a middle colour between black and ſwart: they have four ſilver coloured wings; their uppermoſt bigger and longer than their whole body; their inner wings half ſo big. I have nothing that I write for certain, concerning theſe Indian flying Ants. For Authors themſelves are uncertain, and many late writers, having travelled over almoſt all *India* on foot, have yet found none of thoſe gold-horders and devourers of fleſh; Of which *Megaſthenes* hath recorded thus much: There are found (ſaith he) among the *Darda* certain winged Ants no leſs than Foxes: Now the gold-ſtealers underſtanding that they feed upon the fleſh of wilde beaſts, ſtrew pieces of it along the waies, and ſo while the Ants are overbuſie about their meat, they take away without danger all the gold they had all this while ſtolen. *Oneſicritus* writeth that he ſaw ſome of their skins like Panthers skins. The Book entitled *De Natura rerum*, ſo deſcribes this winged creature, with hooked clawes, a winged body, and a crooked beak, that one would take it for a Griffin rather than an Ant. That *Æthiopia* alſo breeds ſuch, we read in *Philoſtratus*, who placeth Ants and Griffins alſo in *India*; which are not very like one another in ſhape, but both truſty keepers and diggers up of gold. The horns of the Indian Ant, ſet up in the Temple of *Hercules* at *Erythra*, were a wonder, as *Pliny* witneſſeth, or rather lieth. He that deſireth more dreams concerning them, let him read *Herodotus*, *Arrianus*, *Tzetzes*, *Strabo*, *Ælian*, and *Pliny*, who gave ſo much credit to lies carried to and fro and entertained, that they were not aſhamed to put them down even for truths. But paſſing over the *Indian* Ants, let us treat of thoſe in *Europe* only; whoſe courſe of life, fights, victories, policies, prudence, ſagacity, parſimony, cunning, frugality, induſtry, œconomy, charity, fidelity, civility, valour, and laboriousneſs I would to the ſhame of men repreſent here; but that it would be neceſſary to repeat the ſame things in the ſecond Book, when we ſhall treat of thoſe that go, with which they agree in nature, and belong to the ſame Common-wealth. With theſe *Herculean* Ants bruiſed, and Salt and Pepper put to them, the Mangineſs, the Leproſie, and the Scurfe are cured. *Plin.* Oyl made of winged Ants, provoketh and ſtrengtheneth *Venus*. *Wecker*. To conclude, whatſoever diſeaſes other Ants are good for (and they help very many, as you ſhall read) the winged ones have the ſame or greater vertue in curing of them.

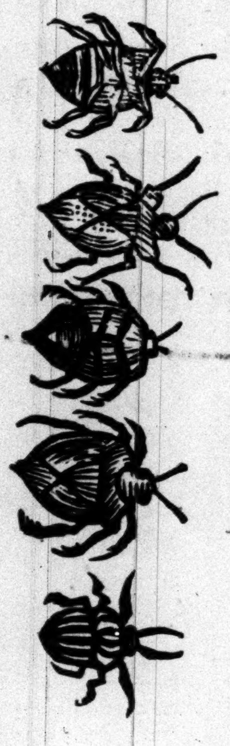
The medicinal uſe. The way to make the Oyl is found in *Rhaſis* and *Barthol. Montag. l. 5. tract. 18. c. 7.*

Agatharſides tels us, that the *Acridophagi* or eaters of Locuſts are not far diſtant from the inhabitants of the Red ſea: which nation are of a lower ſtature than others, lean of viſage, and extream black. About the Vernal Æquinoctial, when the South-weſt and Weſt winds blow with the *Italians*, an unſpeakable multitude of great Locuſts is brought to them with thoſe winds, out of ſome place unknown, which differ little from birds in their faculty of flying, but in the ſhape of their body very much. With this ſort of creatures they are nouriſhed all this ſeaſon, feeding upon them ſalted or otherwaies dreſt. And they catch them by fetching them down from the air to the ground with a ſmoak. And theſe people are reported to excel in nimbleneſs and ſwiftneſs of foot: but taking a very dry nutriment, they do not prolong their life beyond forty years, nay and dye more miſerably than they lived; for when old age drawes nigh, there breed in their bodies certain ſorts of flying Lice, in figure indeed like Dog-flies, but otherwiſe leſs; they begin at the breaſt and the belly, and in a ſhort ſpace eat up all the skin of their face. Others of them are taken like thoſe which have the Itch, thereupon they tear themſelves grievouſly, and at length the diſeaſe being at a ſtay, and thin humours running at the coming out of theſe little creatures, they are fain poor wretches to undergo intolerable torments: and ſo by reaſon either of ill humors, or of their feeding, or of the badneſs of the air, they die. *Hieron. Mercurial. de morb. cut. ex Diodoro Siculo 4. Antiq. lib.*

CHAP. XXIX.

Of the winged Punie or Wall-Louſe.

WHen I had reſolved to conclude this Hiſtory of winged Inſects, we had three wood Wall-lice of the ſheath-winged kinde brought to us, which we here repreſent upon their backs, and upon their bellies. The back, the neck, the little hornes, and the ſheathy caſes of the firſt are of the colour of a Leek; its wings which are longer than its ſheathy caſes, are between green and yellow, as alſo its eyes and feet. The ſecond is of a ſwart colour all over. The third hath its body variouſly coloured with black and red; its little horns and feet coal-black: all of them do glitter here and there with a golden brightneſs (which *Pennius* obſerved not) and ſeem to be of a very compact and tender body. They are found ſitting moſt commonly upon Mallowes, ſometimes upon other plants and trees that bear Apples like Pine-apples, as likewiſe upon the Elm and the Willow. They copulate in the moneth of *May* tail to tail, and are almoſt a whole day about it. The male is leſs, the female bigger and broader. They fly in the heat of the day faſt enough, but neither long nor far. There are bred with us (ſaith *Cardane*) in the graſs two Animals like Wall-lice, the one in ſmell but not in ſhape; the other in ſhape but not in ſmell: but neither of them is of the ſpecies of Wall-lice, becauſe they both fly. *lib. de variet. rer.* But he that ſhall obſerve their ſtink and outward ſhape of body, will not turn them out of the family of the Wall-lice, for their wings ſake: although indeed the field kindes are ſix times as big as thoſe in houſes. *Jacobus Quickelbergius* ſent two other kindes of them to *Pennius* from the parts about *Vienna*, which were waved with a golden and black colour. *Matthiolus* not at all underſtanding



Pliny, denieth that they have any vertue in them. But *Pliny* many waies commendeth the garden Wall-lice, being reduced to aſhes and infuſed in oyl of Roſes, againſt pains of the ears. *Palladius* uſeth theſe with the Lees of Oyl, an Oxe Gall, Ivy-leaves and Oyl, for an oyntment for the bitings of venomous Horſleeches. Let the head of the yard be put into Oyl of Camomil pretty hot, in which Wall-lice have boyled; then let the head of the yard when it is taken out of the oyl, be anointed with pounded Garlick, and the patient will certainly make water. *Arnoldus de villa nova l.* 2. *Breviarii, c. de ſtranguria & dyſuria.* Are not theſe to be taken for thoſe Wall-lice, which the Dutch call *Knolſters* and *Qualſters?* And hitherto hath been ſaid what we know of winged Inſects: ye *Platerus*'s, *Camerarius*'s, *Cluſius*'s, *Quickelbergius*'s, and ye later and more laborious ſons of *Eſculapius* (whom *Phœbus* moulded out of richer clay) if you have any thing which is here wanting, make addition of it, according to your wonted courteſie and ingenuity, remembring that of the old Poet:

Their Medicinal uſe.

Καὶ δὸς τὶ, ϗ λάβε τί· ἄφθονοι αἱ Μουσῶν θύραι.

When you receive, you ought to give withall:
The Muſes gates are wide, and liberall.

OF

Of the Diviſion of the Second Book.

The Preface.

BY the clew of *Dædalus* we are at laſt got out of the Camps of winged horſemen; where ſhould I relate with how many ſtings the Inſects of the lower ranks have aſſaulted me, how much they have troubled my brain, my right hand, my eyes, whileſt I accurately diſſected and obſerved all their parts, truly I ſhould either faint in rehearſing the wounds, or what I was reſolved in my minde to finiſh, I ſhould not be able to do. Wherefore, what valiant ſouldiers are wont to do, whileſt the wound is yet freſh and hot, we will break forth into both Armies, and with better undertakings, ſo far as may be, ſtrive to overcome them. Thou O great God, who in the Inventory of theſe ſmalleſt Creatures, makeſt the moſt excellent underſtandings to ſtand amazed and ſtupid; give me ſtrength, that as by thy goodneſs I have muſtered thoſe Inſects that fly, by the ſame I may be enabled to draw forth all thoſe Foot-forces that want wings; ſo that in all my labour, I may ſeem to have no other end than to ſeek thy glory, to advance learning, and nothing that concerns my own particular, but that I may finde thee in theſe thy works. Go to therefore bold Atheiſt, who art ignorant of God and the Divine Perfection: endure, if thou canſt, the biting of the Spider *Phalangium*, or of the Scorpion; abide the pain of the Worm *Scolopendra*; ſwallow down the Pine-tree Catterpiller, contend with Worms, deſpiſe with *Herod*, biting Lice, ſo much as thou art able, at laſt thou ſhalt finde that there is no foot Souldier ſo mean in this Army, that will not quickly overcome all the forces of thy body and minde, and will make thy foul mouth to confeſs, by their miniſtry, that there is a God. Thus then I draw forth my Regiments, ſo I muſter the Souldiers.

All Inſects without wings are either belonging to the
- *Earth*
  - *Some with Feet,*
    - *Theſe goe with many feet: The Catterpillers, Beetles, and ſuch as are called* Staphlyni.
    - *Theſe goe with eight feet: The Scorpion, the Spider.*
    - *With ſix: As Waſps, Glow-worms, the female Meloe; alſo Worms in wood, trees, roots, fruits, meats, garments, chambers, humors.*
  - *Some without Feet: As Oripa, Maw-worms, Earth-worms.*
- *Or*
- *Water,*
  - *With Feet,*
    - *Some ſwim with ſix feet: as the Shrimp, the Lake Scorpion, the Notonectus.*
    - *With many feet: as the Sea Scolopendra, the many footed Shrimp.*
  - *Without Feet: As the Horſleech, the Hair-worm.*

THE

THE THEATER of INSECTS: OR, Of leſſer living Creatures.

BOOK II.

Chap. I.

Concerning Catterpillers and their ſeveral kindes, and namely of Silk-ſpinners, and Silk-worms.

The Name.

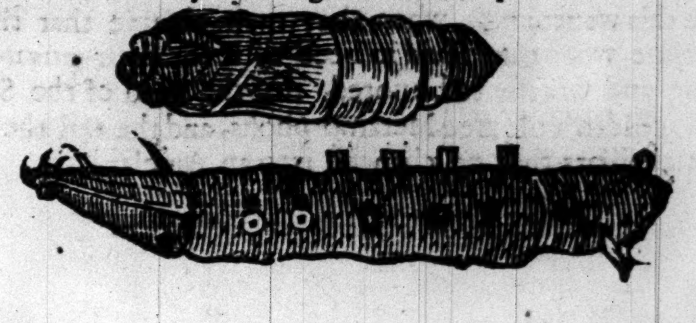
WEE thought fit to place in the Front, Catterpillers, the devourers of *Egypt*: becauſe they are moſt different in their kindes, and alſo ſome of them are excellent for their uſe and worth. It is no fond conceit to maintain that Catterpillers had their name in Latine from devouring, for they eat up leaves, boughs, flowers, fruits; which alſo may be obſerved in the Peach. *Ovid* called theſe Field-worms:

> *Field-worms that weave their hoary thred on boughs, we finde*
> *That they with painted Butterflies do change their kinde.*

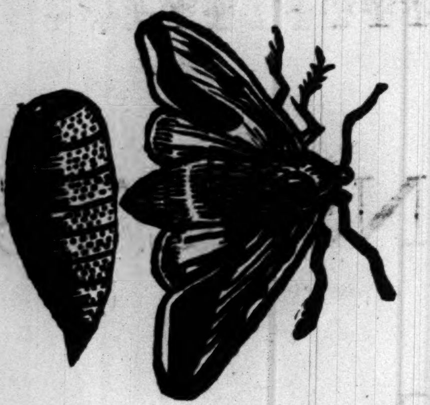
The Greeks call a Catterpiller κάμπη, from the waving and vaulting motion, when it creeps, whereby it lifts up and contracts it ſelf. The Hebrews call it *Ghazam*, becauſe it ſheareth the fruits of the earth, as *Kimhi* ſaith on *Joel* the firſt. The Italians call it *Rugaverme*, and *Bruche*, for ſo ſaith *Marcellus Virgilius* upon *Dioſcorides*. In our times, ſaith he, our whole Countrey cals all kindes of Catterpillers *Bruchi*. The Spaniards call them *Oruga*; the French, *Chenille*, *Chattepeleuſe*; the Engliſh, by the name of *Catterpillers*; but the Northern people call the hairy Catterpillers *Oubuts*; the Southern call them *Palmer-worms*; in the Poles language, a Catterpiller is called *Rup hauſenka*; in the German Tongue *Ein Raup*; in Low Dutch, *Ruype*; in Sclavoniſh, *Gaſienica*; the Peſants call them *Certris*, and *Cedebroa*.

The differences.

I ſhould be endleſs if I ſhould add all kindes of Catterpillers; for ſome feel rough, others ſoft, ſome have horns, (and that either in their head or in their tail); ſome are without horns; ſome have many feet, ſome fewer, but none have above ſixteen feet. Moſt of them move ſwiftly in a waving poſture; yet others there are that go even and ſlowly. Some do yearly change their old skin, and others do not. Some are changed into Aurelia's fixed above the earth, whence are bred your ordinary Butterflies, others are transformed under the earth, and become Glow-worms. Alſo ſome of their Aurelia's are ſmooth and equal; ſome again are hairy and wrinkled, pointed at the ends, ſharp; ſome (namely of the harder kinde) naked, but others (namely of the tendereſt) are covered with moſs or ſilken down. The moſt of them are bred of the eggs of Butter-flies, and are changed into Aurelia's: ſome are bred on the leaves of trees, of the proper ſeed left there in the web in Autumn; or of the dew or air ſhut up in it, and corrupting there, as Vine-fretters. Some again feed on leaves, ſome on flowers, and ſome on fruits. We, to expreſs both kindes of Catterpillers, ſhall divide them into thoſe that are bred from other things; and thoſe that are bred from their own kinde alone. Such as are bred from other things, again, are either ſmooth or hairy; as alſo thoſe are that proceed from their own kindes. Amongſt the ſmooth Catterpillers, the Silkworm deſervedly challengeth the firſt place.



Edward Morinum Bereſith, lib. 5.

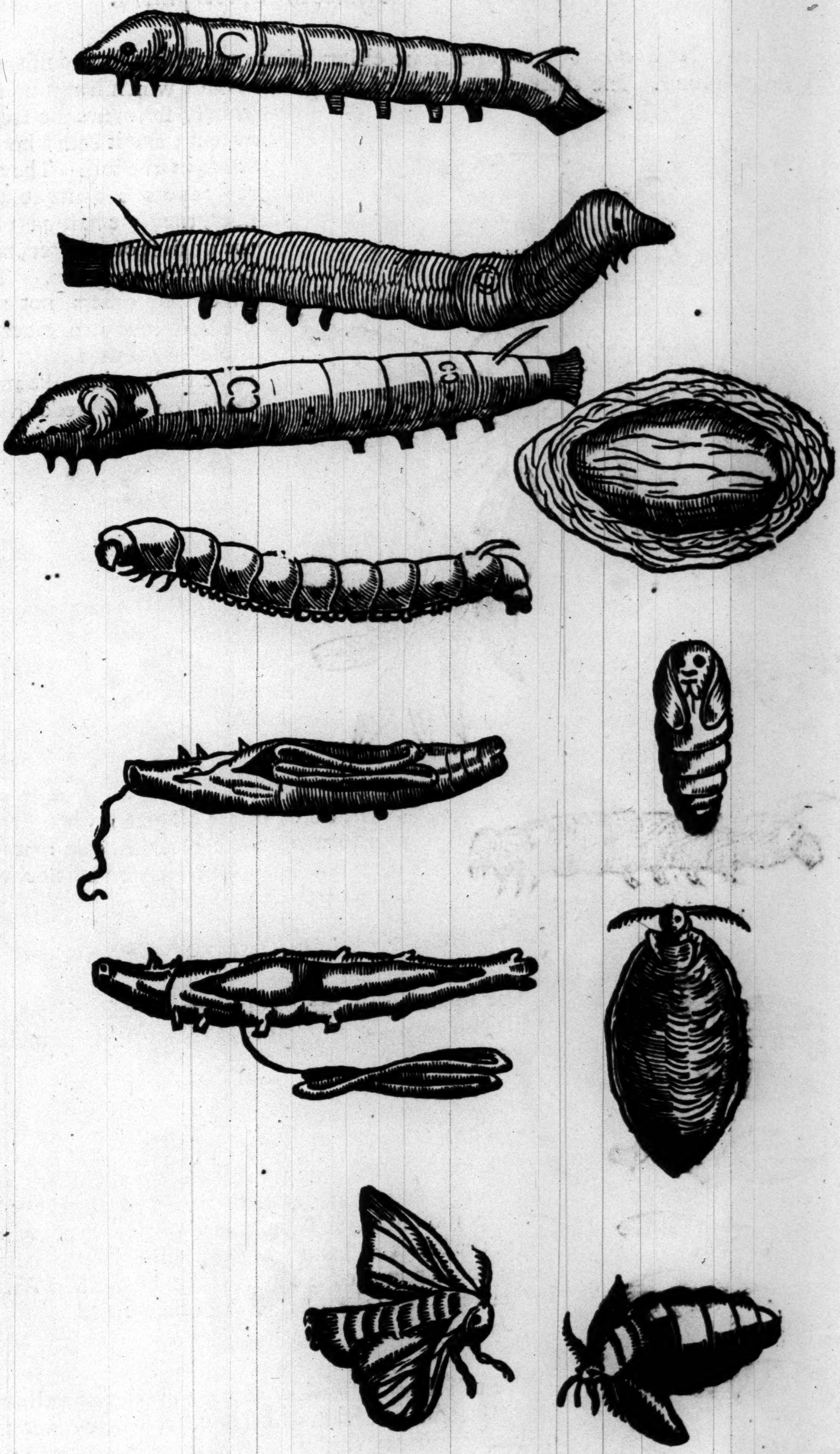


A worm that to a Fly transformed is, and then
Transformed back once more is made a worm agen;
Twice it both dies and lives anew, is wafted ore
By Charon *twice unto the Elizian ſhore.*
Its ſucceſſor is left half living and half dead,
Which after ſpins ſilk robes for thoſe are finely bred.
Fine thred this Silk-worm makes, why doth ſhe labour thus?
It is not for her ſelf ſhe labours, but for us.
Her fleece was formerly an ornament for Kings,
But this prodigious age confuſion brings:
So prodigal of ſilks, that the vile rabble, clowns,
Oyſter-wives, herb-women, ſhine in ſilk ſuits and gowns:
Nothing more common now for all than ſilk attire,
Which waſtes and burns mens hearts with continual fire.

In which words, though our divine Poet, who was more clear than the ancient Bards, doth ſomething touch upon the Silk-worms, and paint them forth, yet he doth not deſcribe them ſo fully, that it may ſuffice for the Hiſtory of them. For Silk-worms are ſmooth Catterpillers almoſt of a milky colour, with ſmall black eyes, and as you ſee, with a forked mouth. The ſnow white ones are bred of Butterflies eggs, which growing by degrees into little worms, produce Silk-worms of the ſame colour with Butterflies. And that I may not repeat this again, let it ſuffice that I have once ſaid it; the Butterfly is almoſt alwaies of the ſame colour with its Catterpillar. That Butterfly forſaking its Aurelia, as many eggs as it leaves, or ſeeds (if you will) like to eggs, they become ſo many Silk-worms afterwards; which, if you cheriſh them, when they are foſtered by the Suns heat, and full fed with Mulberry leaves, they will repay a reward worth your coſt and care, namely a ſilken fleece. They breed firſt in *May*, in which moneth and the two following moneths, they devour a multitude of leaves, and in eating as it were by ſucking, they harden: when they are grown up with plenty of nouriſhment, being become able, they ſpin a moſt fine web out of themſelves, like to a Spiders web. Then againſt cold weather, they grow rough with hair, and make themſelves new thick coats for Winter, by the ſharpneſs of their clawes, pulling the down of their skins into fleeces: then they thicken and cloſe it, carding it with their feet; then they draw it out amongſt the boughs, and make it ſmall as with a comb: laſtly they take hold of this web, and wrap their body in it, making a round neſt. Then men take them, and put them in earthen veſſels, and feed them with bran, and ſo there ſpring up feathers of their kinde; which, ſo ſoon as they are prepared with, they are ſet to perform other tasks. But the ſpinning work they began, growes pliable by moiſture, and is ſpun into threds on a ſmal ſpindle. Some women do uſe to draw it forth into yarn, and then they weave it. *Pamphila* the daughter of *Latous* was the firſt that was reported to have woven in the Iſland of *Co*. Alſo *Pliny* reports that Silk-worms are bred in that Iſland, *Plin. lib. 11. cap. 23.* the flowers of the Cypreſs, Turpentine, Aſh, Oake-trees, being beaten down to the ground by ſhowres, whence they receive life. Though women were the firſt inventers of this Art, yet men are not aſhamed to wear theſe garments for lightneſs in Summer. The cuſtomes of men are ſo far degenerate from Arms, that their very cloathes are grown burthenſome. The thinner and ſofter the leaves are they feed upon, the finer Silk theſe Silk-worms make: wherefore amongſt the people of *Seres* in *Scythia*, the moſt ſoft garments are made; which we call ſilken, as *Marcellinus* witneſſeth, *lib. Hiſt.* 23. In *India* alſo and in *Egypt* there is great plenty and uſe of them, and are brought from thence to the *Spaniards* and *Italians*, being the greateſt cauſe of wantonneſs amongſt mortals. So often as I conſider, that ſome ten thouſands of Silk-worms labouring continually night and day, can hardly make three ounces of Silk, ſo often do I condemn the exceſſive profuſion and luxurioſneſs of men in ſuch coſtly things who defile with dirt, Silks and Velvets, that were formerly the ornaments of Kings, and make no more reckoning of them now, than of an old tattered cloak, as if they were aſhamed to eſteem better of an honourable thing than of a baſe, and were wholly bent upon waſte.

The Name. Greeks call this Catterpiller *σὴρ*, and *Bombyx*, which name is become Latine. The Italians call it *Bigatto*; the Spaniards, *Guaſano della ſeda*; the French, *Ver à Soye*; the Germans, *Ein Seyde worme*; the Engliſh, *Silk-worm*. Amongſt whom a Silken habit is ſo much loved and valued, that they deſpiſe their own Wool, (which compared with Silk, is not contemptible, and is the moſt profitable and the greateſt merchandiſe of the Kingdome.) But time will make them forgoe this wantonneſs, when they ſhall obſerve that their moneys are treaſured up in *Italy* at that time, when they ſtand in need of it for their private or publick affairs. This is a pleaſant thing and worthy to be noted, that the head of the Silk-worm, makes the tail of the Butterfly in that golden coloured Metamorphoſis, and the tail the head; which alſo happeneth in all other Catterpillars that are changed into an Aurelia.

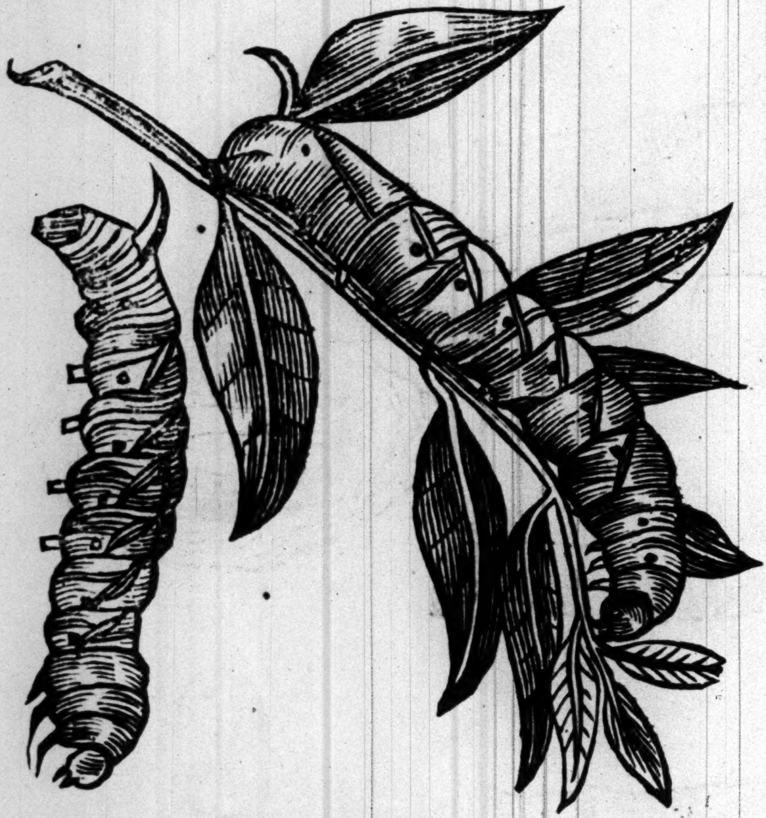
CHAP.

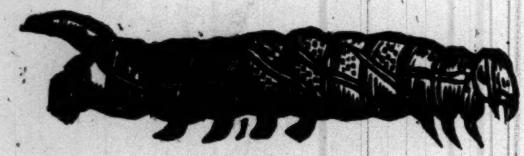


CHAP. II.

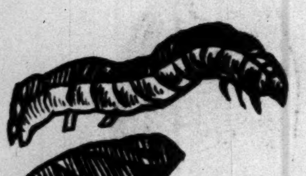
Of the reſt of the ſmooth Catterpillers.

Green 5. ALL the other ſmooth Catterpillers, are either green or yellow, or reddiſh, or dark, or various colours. The chief Catterpiller of the green, is that which hangs upon the Privet; a circle ſurrounds the face of it, and all its feet; and it hath a horn turned backwards in the tail. They are black and red, ſpots are made athwart their ſides, they are half purple, half white; the ſmall ſpots are red, but their whole body appears green. That upon the Elder-tree differs not much from it, but that it is altogether green, except thoſe overthwart ſpots very white, and ſome little points like milk. It chiefly feeds on the reddiſh coloured Elder.

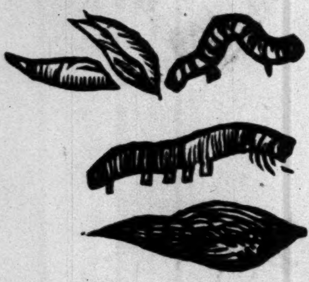




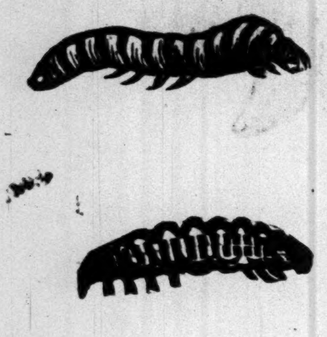
The third, that is all green, when Autumn comes is transformed into a blackiſh caſe: it feeds on the ſofter Pot-herbs, eſpecially on Lettice, whence we call it the Lettice Catterpiller.



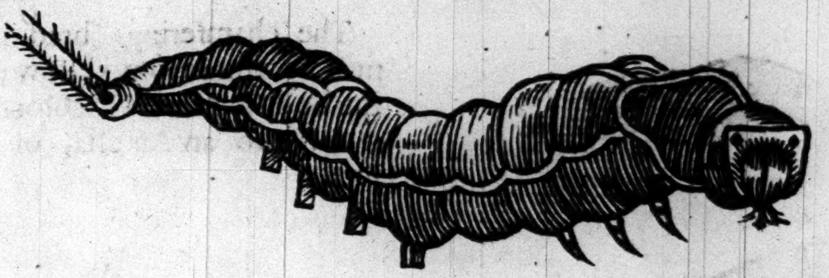
The fourth upon the Medlar-tree is leſs, all over green, drawing it ſelf into an aſh-coloured caſe, all beſprinkled with moſt black ſpots.



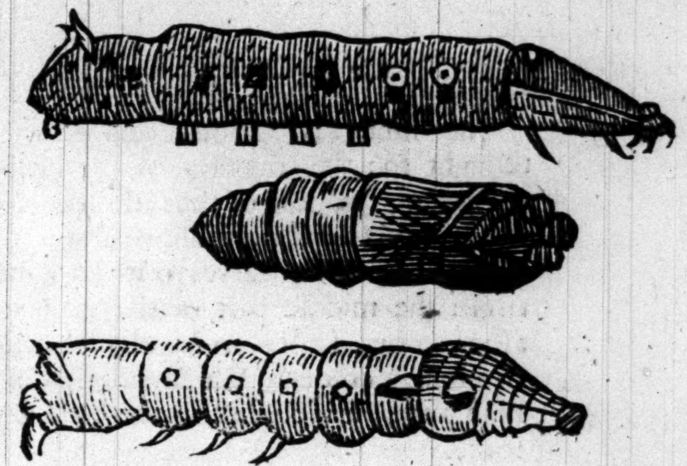
The fifth is leaſt of all, ſpins its threds on trees, (eſpecially upon the Oake, and deſcends by them upon the heads of thoſe that paſs along, and intangles their hats and cloathes: a very little creature, moſt noted in Summer, and obvious every where, when the fall of the leaf is at hand; he wraps himſelf in a courſe web, and being ſhut up in a red and green cover, he dieth in Winter. He hath but ten feet, as all the reſt that went before had.



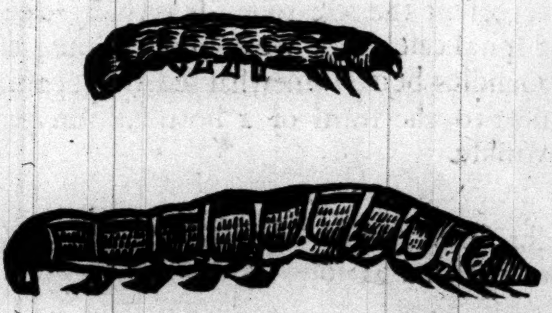
Yellowiſh are 3. We call them yellowiſh, that are moſt part yellow: ſuch theſe figures preſent you with, which is kept, whereſoever they are void of black, overcaſt that with a paler yellow, and you have their figures painted. They live on ſofter leaves, eſpecially on the Tiel-tree.



Vinula is next in order; which is a moſt delicate Catterpiller, and beautiful beyond belief, we have found it on the Willow feeding greedily, the lips and mouth of it are a pale yellow, the eyes are fiery, the forehead is purple, the feet and the lower body green, the tail is forked, blacker than grapes, the whole body is ſpotted as with thick and dark red wine, which paſſing from the neck croſsway to the very tail, a moſt white line doth wonderfully adorn it. *Vinula.*



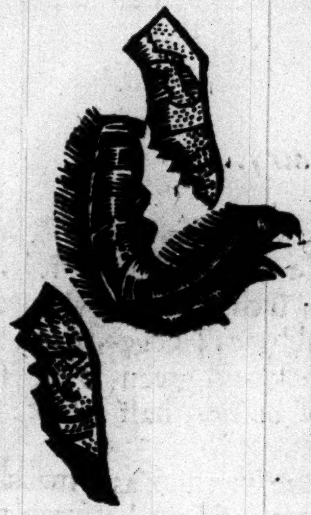
The Catterpiller called *Porcellus,* is black, brown, eſpecially the greater, but the leſſer hath the circles white. Frequently they are found on the leaves of meadow Trifolie, and they devour them with wonderfull ſwiftneſs. *Dark* 3.

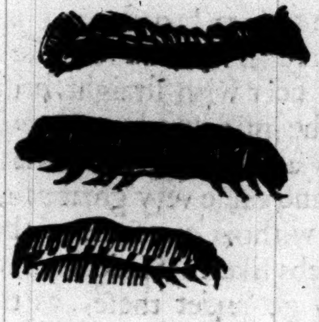


Three various colours are chiefly obſerved: the firſt hath a blewiſh face, and very black eyes, the outward skin of the back is grayiſh, much beſprinkled with black and yellow ſpots; it is changed into an Aurelia of a bright bay garniſhed with a white ſmall membrane: it loveth Cabbidge and all kinde of Turneps. *Various coloured* 10.

The ſecond hath the head and feet and tail very black, being chequered with yellow; the chequerings that are painted on them inwardly, are diſtinguiſhed by channels black and gray, drawn longwaies by turns. It loveth Fennel, and Anniſeed, and Cummin.

The third is green from white, buncht as it goeth along, for it hath only ſix feet on both ſides, as thoſe before. It is changed into an Aurelia ſet with pricks, of a dark colour. It conſumes Olives.

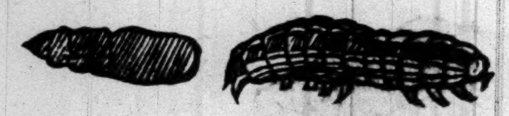




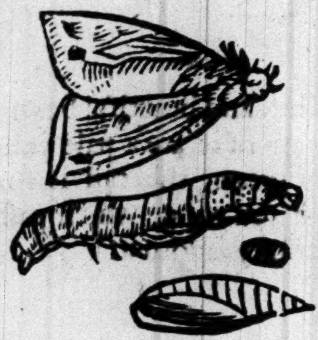
The fourth feeds on Dragon-wort, and reſembles a ſpotted Viper: it goes alwaies with the head upright, and leans chiefly on its breaſt. It loves Bulruſhes, and plants that bear down, and are bred in rivers.

If you paint the ribs deſcending of the fifth kinds with old *Minium,* there will be few things in the picture that ſhall not agree with the truth.

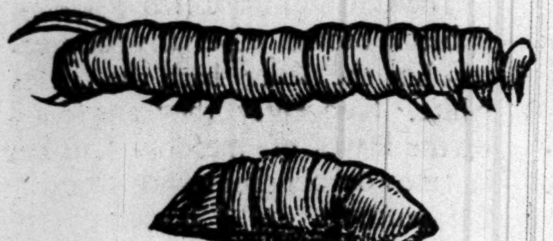
In the ſixth what you ſee white, paint with Ocre. Both of them delight in the black Poplar-tree, and feed greedily on it.



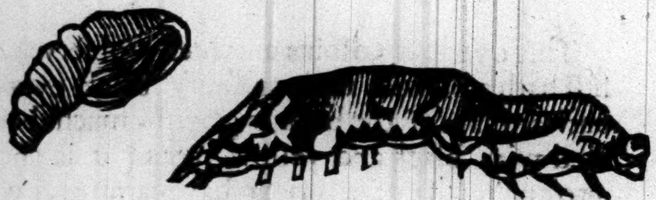
The chamferings bred in the ſeventh, muſt be white from yellow; all the reſt of the body is of a dark colour, and changeth it ſelf into an Aurelia, of a light red colour.



The eighth ſeems of the colour of aſhes, waving out of black: it makes a caſe between black and a bright red, whence growes a duſty coloured Glow-worm.



The ninth is various, and deſervedly thought ſo: the roundles of the inciſions are green; the horn of the tail is bent backwards, and is of a bright blew; under which a red coloured ſpot ſerves to make it beautiful: the middle part of the inciſions is aſhes colour. Laſtly, an Aurelia is included of a murry colour. We found this in the high way; it delights in the field Crowfoot.



The tenth is gray and black; for what is here white, lay gray upon it, and it will repreſent the creature. It is changed into a ſpiral caſe, of a weak blew colour; the roundles being ſomewhat red; and it comes next to the form of a horn faſhion periwinkle.

The ſmooth Catterpiller comes from the wilde night-ſhade (which the Italians call ***Belladonna***) of a green and yellow colour, it hath a horn in the forehead as long as ones finger, which ***Cardanus*** relates that he ſaw often.

Chap. III.

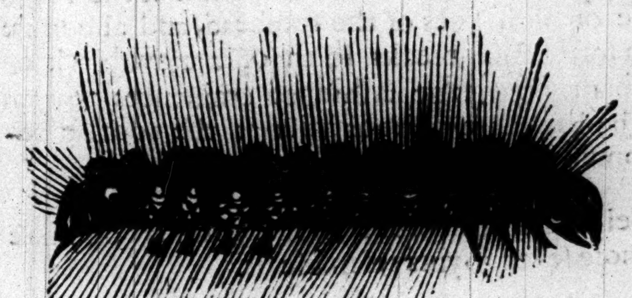
Of Catterpillers rough and hairy.

Thoſe with hairs are the moſt miſchievous of all: ſome are very thick of hair, others thinner; whereof I here afford you the kindes. Amongſt thoſe of the thicker hair, are walkers up and down, ſuch as are upon Nut-tree leaves, Pine-trees; ſuch as have ſayl-yards, ſuch as are called ***Neuſtria***, Pear-eaters; ſuch as are upon Nettles, Cabbage, Hedges, feeders on Poplar, ſuch as loſe their skins, ſuch as are amongſt Marigolds, black and green, *&c.* Thoſe that have thinner hairs are ***Echini***, dwellers amongſt Fennel, eaters of buſhes, half white: of which we ſhall ſpeak in order.

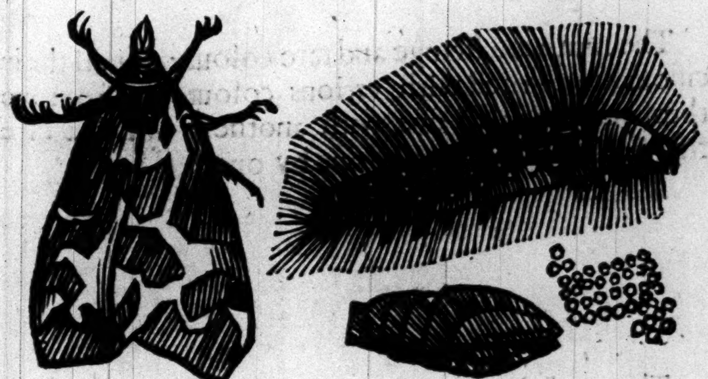
Pityocampes, that is, Catterpillers on the Pitch and Pine trees, are as thick as a mans little finger, and as long as the breadth of three fingers. They have eleven inciſions between their heads and tails, and they have ſixteen feet like the reſt, namely about the head on both ſides three, on the middle of their bodies on both ſides four, and at the ends of their tails on both ſides one: but the firſt are crooked and ſmall, wherewith they try their way, the reſt are broader and jagged like ſawes, that they may ſtick the faſter to the boughs. The head is like an Ant, the reſt like common Catterpillers; they are rough with hair and encompaſſed on all ſides with ſtraight briſtles: the hairs bred on their ſides are white, they ſhine on their backs; the middle part whereof is adorned with ſpots like to eyes; the briſtles being ſhaved off, there is a black skin underneath, their hairs very ſlender, yet they prick more ſharply than a nettle, and cauſe very great pain, heat, a Feaver, pricking, unquietneſs. For the poyſon enters ſuddenly without any ſenſe of the wound, and is carryed to the parts next the bowels. They ſpin fine webs like to Spiders, drawing and diſpoſing their threds with their fore-feet. Towards night they go under theſe, as they were tents, that they may eſcape the inconveniencies of cold and ſtorms. The matter of this tent is ſo faſt and fine, that it is not in danger by the greateſt winds, nor is it ſob'd with rain: and it is ſo ſpacious, that a thouſand Catterpillers may be under it. They make their neſts in the ſmall boughs of the Pine and Pitch trees, where they live not ſolitary as others do, but by flocks: which way ſo ever they bend their courſe, they ſpin and carry their thred for the web along with them; and at break of day, if it be but fair weather, the great ones accompany the leſſer by troops, and having made the trees void of leaves, for they conſume them all, they labour hard in weaving. Only theſe plagues of the Pine and Pitch trees do not meddle with other Cone Apple trees. In Mount *Athos*, the woods of *Trent*, and in the vallies beyond the *Alps* they abound very much, by reaſon of plenty of leaves for their nouriſhment, as *Matthiolus* witneſſeth. They are truly moſt venomous creatures, whether you touch them outwardly with your hands, or they be given inwardly. They were of old eſteemed ſo certainly to be poyſon, that *Ulpian* interpreting the *Cornelian* Law concerning private murderers, ſet down amongſt them to be puniſhed thoſe that give a Pine Catterpiller to drink. *Sect. Alium. ff. ad leg. Corn. de ſic.* When one hath ſwallowed a Pine Catterpiller, the pain grievouſly afflicts both the mouth and palat; the tongue, belly and ſtomach are greatly inflamed by the corroding poyſon: alſo a wonderful pain vexeth them, though at firſt they ſeemed only to feel a pleaſant kinde of tickling: great heat followeth, loathing of meat, and a perpetual deſire to vomit, but ineffectual. At length if it be not helped, they burn the body, and make the ſtomach cruſty almoſt like to Arſenick. *Dioſc. Aetius, Plin. Celſ. Gal.* alſo 11. *ſimpl. c.* 5. and *Avic. ſoſ. cap.* 25. Hence it is that *Aetius* and *Ægineta* held it dangerous to ſet the table for meat under the Pine-tree, or for to ſtay there, leſt perhaps by the reak of the meat or vapour of the broth, or by noiſe of men, theſe Pine Catterpillers ſhould be moved and fall down upon the meat, or ſhould let fall their ſeeds, that are as deadly as themſelves. They that are hurt by theſe muſt uſe the remedies againſt Cantharides, for the ſame means will cure them: but properly oyl made of Quinces, called *melinum*, and oyl Olive, is to be drank twice or thrice to cauſe vomit, as *Dioſcorides* from *Aetius* hath preſcribed. They are bred, or rather regenerated, as Vine-fretters are, from Autumnal ſeed left in the web in certain bladders, or from the Vine-fretters themſelves corrupted, as *Scaliger* thought.

Signs of a Pine Catterpiller drank and the cure.

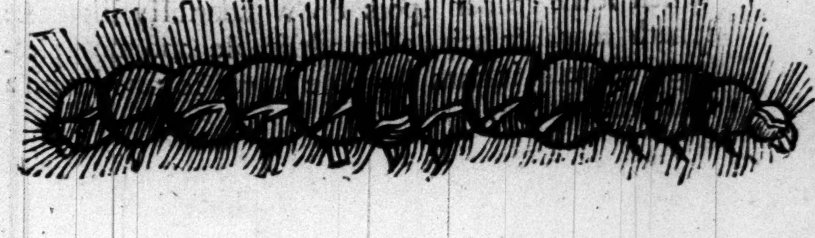
Now we proceed to walkers about. We call thoſe walkers, who have no certain houſes or food: wherefore they do ſomething ſuperſtitiouſly wander like pilgrims, and like to Mice, they alwaies feed on others meat, wherefore the Engliſh call them *Palmer-worms*, namely for their wandring life, for they dwell no where, though by reaſon of their hair they are called *Bear-worms.* They will not be tied to any kinde of flowers or leaves, but they paſs on boldly, and taſte of all plants and trees, and feed where they pleaſe.



Firſt thoſe white ſpots which we ſee in their ſides, muſt be ſuch really; the whole body is black, all the inward hairs muſt be ſomewhat yellow, but all the uppermoſt on the back muſt be hoary, except thoſe three ranks that are bred in the neck near the head, for they have the ſame colour with the hairs of the belly. Out of the Aurelia of this comes forth the Butterfly which you ſee here: whoſe colour, figure, and nature, we deſcribed in the Book before.



The ſecond, if you make the neck and belly, and the hair there growing, yellow, you need do no more. The cover of it ſeems dusky, the eggs are pale. We explained the Butterfly that growes from thence in the former Book.



The third is, the whole body and hair, dusky yellow, but that the ſpots on each ſide being obliquely made in each inciſion lie hid, and the head being of a light red, is adorned with a certain white fork.

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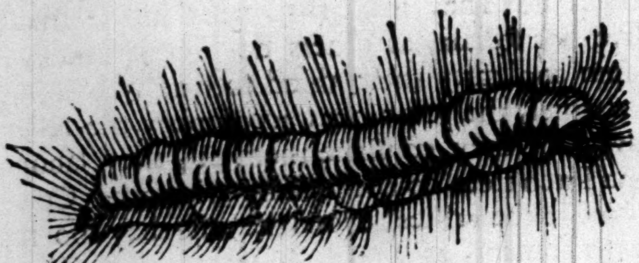
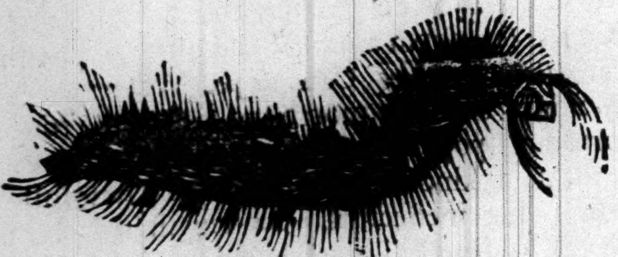
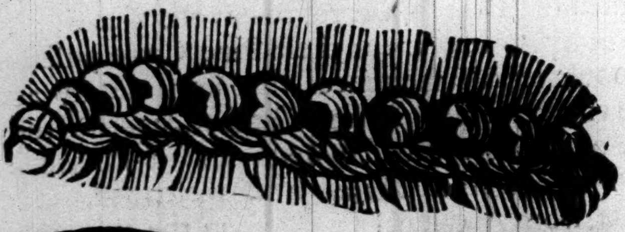


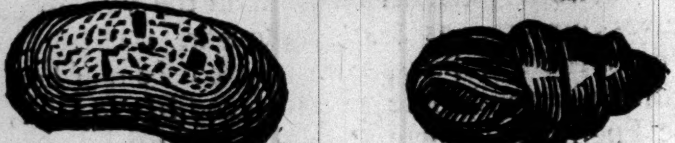
The fourth hath his belly and lower hairs dusky, the back and upper hairs are yellow from dusky, a double forked line in the face reſembles the colour of whey, or milk mingled with water.

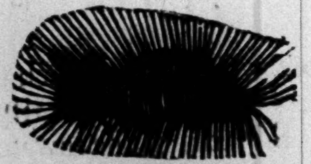


The fifth hath a bright bay colour in the face, the ſides of the belly hoary, a body various with ſmall yellowiſh ſpots, and above theſe with black; yellow hairs come forth like ſmall rags; they are ſharp, and growing more ſharp pointed from the middle: it hurts much the neighbouring herbs and the corn.

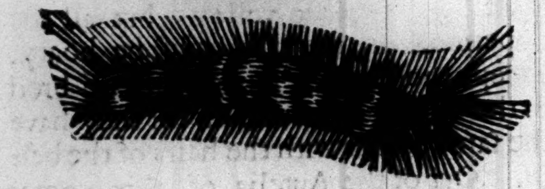


The ſixth is a brown colour'd, if the inciſions were not died with black and white ſpots here and there; the hairs are bred above and beneath, and ſet after a ſaw faſhion; they are very rough and hard, but they are of the colour of the body.

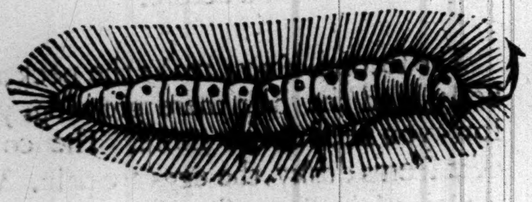




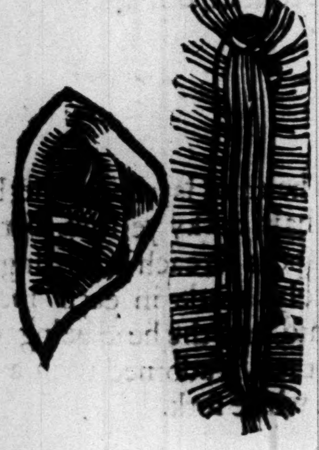
The ſeventh hath a black skin, yet it hath hairs ſomething of a dirty colour, I uſe to call it the *Penſill*, becauſe on both ſides of the forehead, and alſo in the rump a ſoft penſil breaks forth of a crow-black colour: but thoſe wedge faſhioned eminences that you ſee in the back, are white as milk at the root, otherwiſe ſomewhat black.



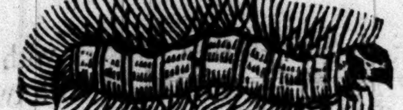
The eighth holds forth a Mouſe colour, on whoſe back thoſe ſeven joynts reſemble it.



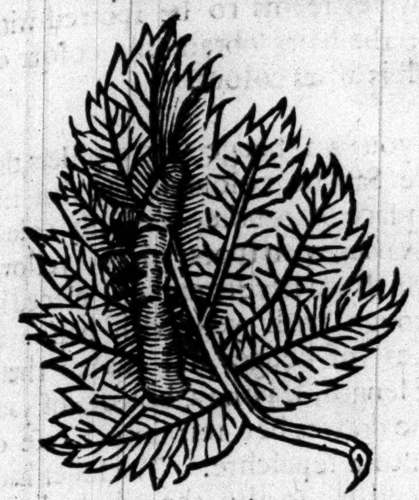
The ninth is a ſtrange and rare colour: for all the inciſions are painted with various colours one from another, yet mingled one with another, which a ſilver ſtud doth adorn ſeverally one by one.



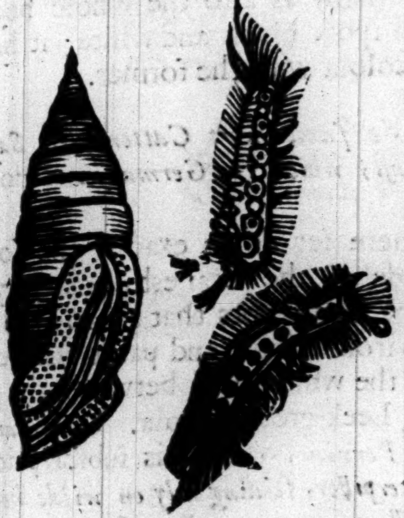
The tenth is amongſt the ſports of wanton nature, not leſs elegant than it is rare, being ſtreaked with black, green, blew, yellow ridges, and ſmooth ſtrings; which ſome golden ſpots do wonderfully illuſtrate: it hath very ſoft hair, of an admirable and moſt pleaſing freſhneſs; it hath a purple cover fortified with a ſmall membrane.



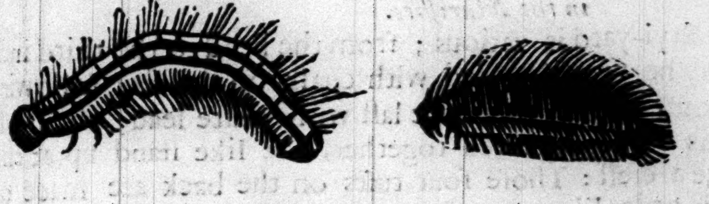
Suppoſe the white inciſons of the eleventh to be green as Leeks, and paint the skin and hairs half green.

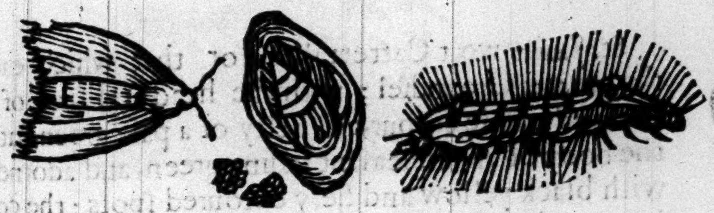


The Nut-tree Catterpillar is of a pale green, except three black ſpots between the joynts, and that horn at the end of the back, and growing as it were on the rump, which receives a freſh roſe colour. It eſpecially ſits on the leaves of the Hazel-nut, whence we call it *Corylaria*. I ſaw two kindes of them, one was a full, the other a paler green.



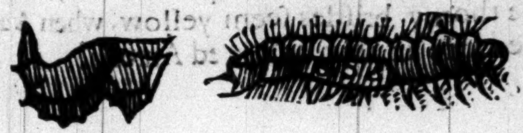
The manifold delicacy of Nature ſhines forth in theſe, to which though it giveth them the face of a *Moor* or *Ægyptian*, yet it affords them a garment that is of changeable colours, ſhining in divers works and real art; in the forehead, the hairs are knit as into knotty locks, and reſemble the ſail-yard: the like are found in the extremity of their backs. The skin is like the rain-bow, and ſhines in circles deeply died with purple, which nature hath faſtned to the ſides like broad ſtuds; the hairs bred in the skin, ſhine like the Sun, and dazle our eyes in a clear day.





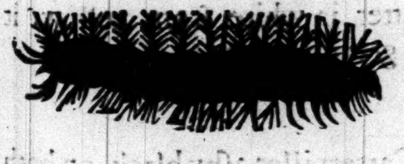
We received two *Neuſtria* out of Normandy, the firſt had a face of a blew colour, and the body ridged with white red and gray ſtreaks; the hairs are comely with a golden ſhining colour. The leſſer rolled together, is like an Urchin; the head is cole-black, the body is variouſly ſpotted with little blew ſpots; the hairs reſemble a Saffron luſtre.

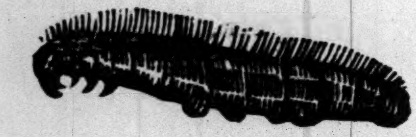
This corrupts the buds of the pear tree, having a black ſmudged face; the body is adorned with ſome black red white ridges; in the middle as it were of the ſhoulders, and to the end almoſt of the back, little ſwellings or bunches ariſe of black and blew colour, ſprinkled with white ſpots. The Eggs from whence they breed are a bright bay colour, which is alſo the colour of the Aurelia, and of the hair. We ſaw another of the ſame kinde, but only it had a bunch on the back.



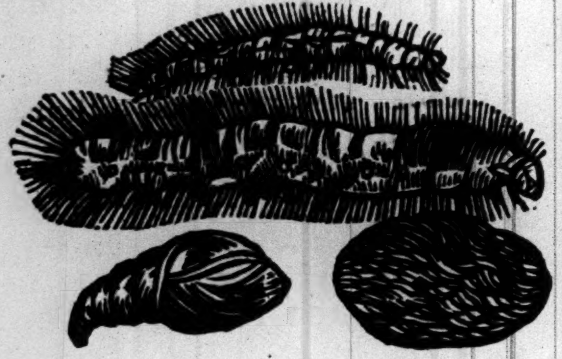
We call that half white, which is by nature yellow from the head to half the back, and the reſt white as a Lilly. The belly is yellow and aſh-coloured, adorned with ſtuds, and checquered in the middle.

If you touch the feet of the Nettle Catterpiller lightly with a fading yellow, the figure will differ little from the natural: it hath hard upright hairs growing like thorns, they wound with a ſmall touch, and at firſt they cauſe a pleaſant itching, but venomous; but after that a pain hard to be endured. Some maintain that it is more venomous than the Pine-tree Catterpiller.



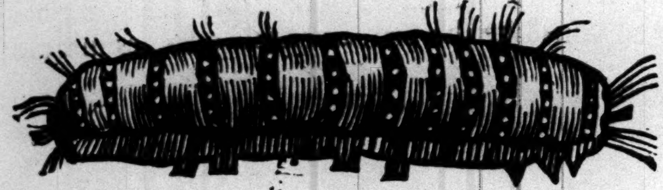


On a Cabbage a Catterpiller breeds with a bright blew head, his body is marked with two yellow branches on both ſides; between which a grayiſh plat as it were, ſeems to be ſpotted with ſome black ſeeds: the hairs obtain the colour of the Aurelia, which is aſhes colour.

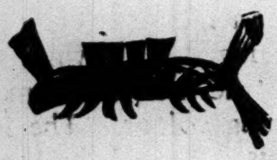


Here we ſhew you two hedge Catterpillers, the greater hath a face Saffron coloured, but that triangle you ſee in place of its noſe, was Lilly coloured: the body is varied with ſpots, white, yellow, red and black, (which we have expreſſed) placed in no order; it is rough with yellowiſh hairs: it devours the leaves of hedges and makes them naked: where at length, leaving a bottom of yarn of courſer ſilk, ſhe drawes her ſelf into a caſe of a bay colour, as into a ſepulchre. The leſſer hath a countenance blewiſh, as alſo the whole body, except that it hath ſpots black and white; it hath hairs of the ſame colour with the former.

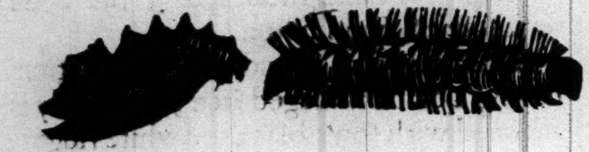
Theſe have fewer hairs: namely, Cranesbill-eater Catterpiller, St. James wort Catterpiller, Sayl-yard, Urchin, Bramble Catterpillers, and that little horn beaſt, which the Germans call Horn-worm.



We have here ſet down exactly the form and magnitude of the Cranesbill-eater, you muſt make the white ſpots that adorn its black girdles of an iron colour; and paint the belly and feet, and the white ſpace between the girdles, with a Leek-green colour. *Camerarius* ſent this to *Pennius*, with this ſubſcription: *A great Catterpiller, feeding only on wilde herbs, and is eſpecially an enemy to Crowfoot Cranesbill in the Mariſhes.*

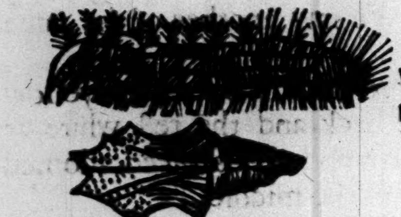


The body of the Sayl-yard is various; from the head to the third inciſion, you would ſay he were ſmeered with chalk, in the five following with aſhy dark colour, and on the three laſt with white lead; the ſayls are made of hairs as it were platted together, the like ſtand up at the end of his back like a creſt: Thoſe four tufts on the back are made of hairs alſo growing in order like to teeth.

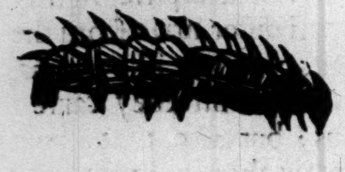


St. *James* wort Catterpiller, or that which eats the greater Groundſel; with the head and feet of a decayed purple colour, the belly of a pale green, hath the body of an unpleaſant fading green, and adorned with black yellow and fiery coloured ſpots; the colour of the hair agree with the belly.

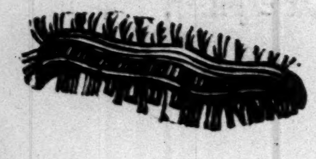
I have obſerved two kindes of Urchins, one of a blewiſh green, the other a mingled white.



The firſt of the Urchin Catterpillers hath a checquered body, varied with black and yellow; the thorny briſtles ſeem yellow, when Autumn comes it is transformed into an aſhy coloured Aurelia.

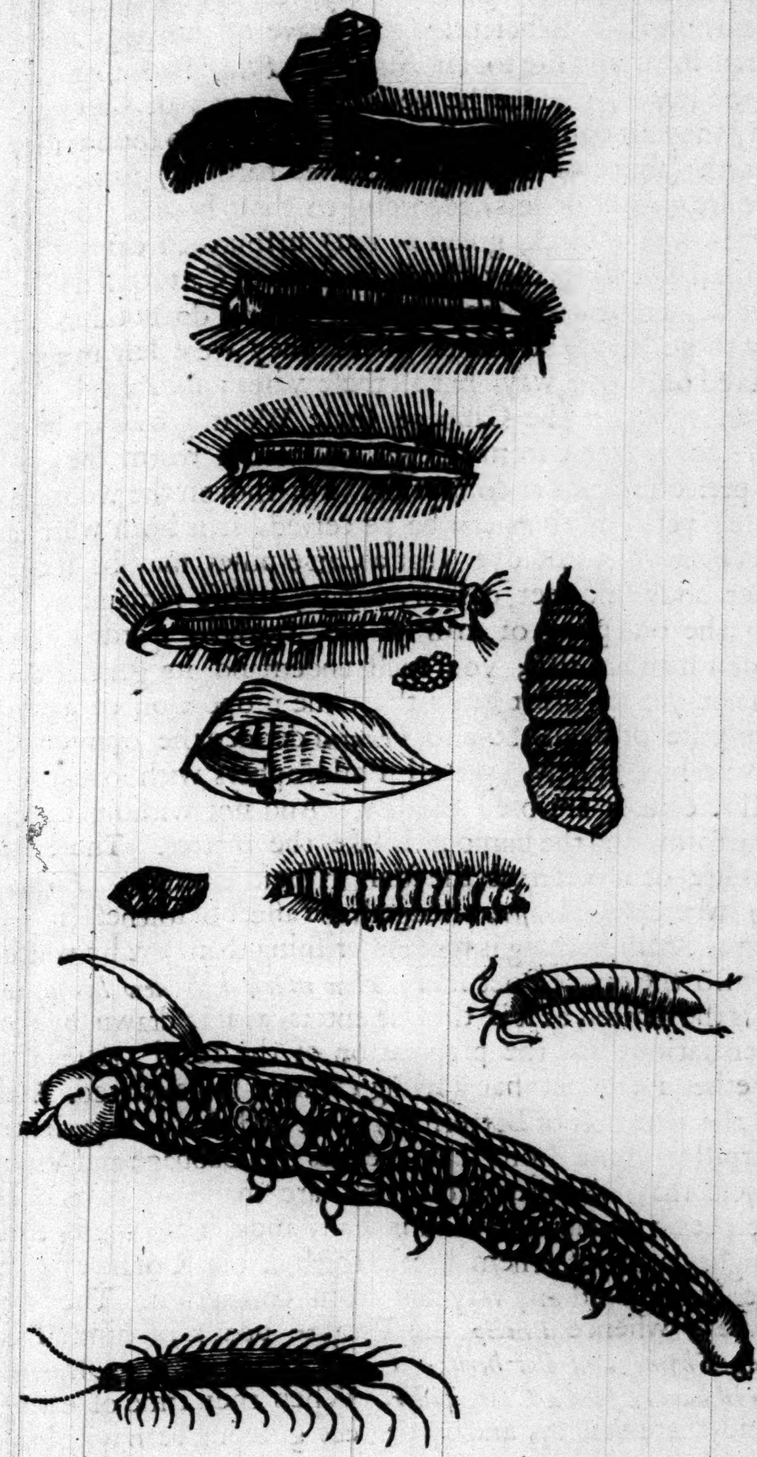


The ſecond is perfectly like an Urchin, half the back, namely the firſt half, is black from yellow, the latter is white from yellow, it hath pricks very ſharp and thick, of a grayiſh colour.



Nature hath painted the bramble Catterpiller aſhy black, on both ſides with three ridges of a pale yellow colour: the hairs are very thin, and altogether black.

There is alſo the horn Catterpiller, who hath many green ſpots from yellow, the hairs bred on the middle of the back are hoary, but the horn is notched and red.



Many diverſities there are of theſe Catterpillers upon the Mullen, Hop, Pile-wort, Bitter-ſweet, Nightſhade, Elder, Elm, Baſill, Tythimals, and almoſt every herb hath its particular devouring Catterpiller: which, that I may not prove tedious, I overpaſs, as well enough known. I never had the hap to ſee the ſtinking Catterpiller of *Geſner*, deſcribed by him in theſe words, as I have it in writing: It is, ſaith he, moſt like the horned Catterpiller, but it differs ſomething in the horns and colour. I took one creeping on a wall at the end of *Auguſt* in 1550. It ſends forth a filthy ſmell, that you would verily believe it were venomous: it was angry, and with its two forefeet it held the head alwaies upright: I think it is blinde, it was a finger long, and thick, it was rough on the back and ſides, with a few hairs ſcattering on them; the back was black; the colour of the belly and ſides was reddiſh from yellow: the whole body is diſtinguiſhed by fourteen diſtinct knots: all theſe joynts again have a prop or wrinkle over the back; it hath a black ſomewhat hard head, the mouth is forked and dented, or ſaw-faſhioned; whatſoever it catcheth with theſe nippers, it bites it: it goes on ſixteen feet, as moſt of the Catterpillers do, without doubt it is venomous. *Vergerus* thought it to be the Pine-Catterpiller; others thought it was Scolopendra. But its number of feet will not let it be Scolopendra. I could ſcarſe endure the ſmell while I took the deſcription alive: it did ſo infect two ſtoves with an extreme and intolerable ſtink, that I could not ſtay to endure it: ſo ſayeth *Geſner*.

CHAP. IV.

Of the original, breeding, nouriſhment, and change of Catterpillars.

DEar book, the faithfull witneſſe of my pain,
Let not the purple red thy fair cheeks ſtain,
Whileſt I in tables paint the rude worms race,
And ſuch as change their skins into a caſe.
For theſe by Gods wiſe hand created are;
Which in ſmall things is wonderful and rare,
And more to be admired in Worms, than Whales,
Or Elephants, Leviathan with ſcales,
Arm'd as with harneſſes ſtrong as iron bars,
And roars like thunder terrible in wars;
Who drinks the ſea, and ſpews it up again,
Compar'd with worms, will be admir'd in vain.

So I ſhall begin with our Poet, who obſerved a divine power in Catterpillers from their Original; which whileſt divers Authors have diverſly expreſſed, I know not into how great darkneſs they have caſt us. *Ariſtot.* 5. *Hiſt.* 19. writes, that they begin from green leaves of herbs, as from Cabbage, or Raciſh: namely by a ſeed like Millet left there in Autumn, whence little Worms proceed. From theſe Worms in three daies ſpace Catterpillers breed at the end of the Spring; which being augmented and nouriſhed ſufficiently, they leave off moving, and at the beginning of Autumn they change their form and life for an Aurelia. *Pliny* ſaith that dew thickned by heat of the Sun, is left upon the leaves, whence he derives all kindes of Catterpillers, to whom *Arnoldus* agrees: others ſay they all come from Butterflies; which ſo ſoon as they come forth of their Aureliæ, they thruſt forth (above or beneath the leaves hard by) ſome eggs (the barbarous call them *Turds*) and theſe are greater or leſs, according to their bodies (ſome of theſe have blew ſhels, ſome yellow, ſome white or black, green or red) in fourteen daies they are hatched by heat of the Sun, and the ſhell breaking, they thruſt forth ſmall Catterpillers like very ſmall Worms, but coloured: at firſt beginning they are very hungry, and do nothing but devour leaves and flowers, eſpecially of thoſe herbs and plants where they were left in eggs. But I ſhould maintain that they are not bred only one way, but all theſe waies: for though *Ariſtotles* doctrine ſeems to ſome not acute enough, that the Cabbage little Worm grows to be a Catterpiller; yet it is not againſt reaſon; for as nature from an egg, ſo from a worm ſhe produceth a more perfect living creature, as perfecting, not as corrupting. For though the worm be not that it was before, (as is clear to ſenſe) yet as much as can be perceived, it is both what it was, and is now ſomewhat more, for a Worm doth not dye that a Catterpiller may be bred: but adds a greater magnitude to its former body and feet, colour, wings; ſo life remaining, it gets other parts, and other offices: ſo the off-ſpring of man (I uſe *Scaligers* words) after ſome daies at firſt of a man in *poſſe*, is made a man actually; you muſt underſtand its generation, in which time the intellective ſoul doth not yet act, but it bears the ſame proportion to a man that ſhall be, as a Worm doth to a Catterpiller or Bee. So alſo *Pennius* derided the opinion of *Pliny*, when he writ that Catterpillers were bred of dew, yet all Philoſophers with one conſent agree, that the more imperfect ſmall creatures are bred of dew. And not without cauſe. For the Sun by heating acts, being like the form, and the humour is like the matter. The Suns heat is different from the fire, for it gives life, or it preſerves the ſouls in their likeneſs. *For the dew hath the proportion and ſoftneſs of the air*, where *Theophraſtus* alledgeth the affect of ſoftneſs (in his Book of Plants) as proper for generating air. Alſo nothing is more nouriſhing than dew, by which alone ſome little creatures live: which alſo the divine Poet ſaid; *How much doth dew lay up in the night!* Therefore as it is humour, it is the matter, as it is thin, it enters, as it is drawn by the Sun, and concocted, it is the fitter for generation; for the preparation of the form carries the matter along with it, and theſe going together it fals out that a living creature is generated. And it is not only an off-ſpring of dew, but the daughter of Butterflies, as we ſaid, and as experience teſtifieth: and the greateſt part of Catterpillers come from them, beſides the Cabbage and Vine-fretters, few are bred otherwiſe. For theſe that the Greeks call *ims*, are made of dew, or a humour ſhut up in webs and putrefying, eſpecially when the wind is Eaſt, and the air warm, that haſtneth corruption. For then ſuch a mighty army of them breaks forth in our Countrey, that we cannot truly ſay or think ſo many could be bred any way but from corruption. They are all gluttonous devourers of herbs and trees: whence *Philip* the Paraſite boaſts of himſelf in *Athenæus* in his Pythagoriſt, *for feeding on Thyme and Pot-herbs, I am a Catterpiller.* *Martial* ſpeaks to the ſame purpoſe, *One garden will hardly feed a Catterpiller.* When their time of eating is over, they wander up and down here and there hungry, and by degrees growing lean with hunger, ſome within, ſome above the earth, ſeek for a fit place, where they are transformed into an Aurelia covered with a Membrane, and hanging by a thred, or into a bare caſe; if this happen in the midſt of Summer, after 24 daies the ſhell breaking, a Butterfly preſently flies out: but if Autumn be well ſpent, the Aurelia laſts all the Winter, and ſhuts out nothing till the heat of the Spring. Yet all Catterpillers are not changed into Aurelia's, but ſome are contracted (as Vine-fretters) and corrupt, from whom oft-times three blackiſh eggs fall, that are the mothers of Flies or Cantharides: when your Butter-flies copulate very late, they bring forth eggs (even untill the next Spring) that have life, (if you take diligent care of them) as it is uſual in Silk-worms, whoſe eggs are ſold commonly amongſt the *Spaniards* by ounces, and pounds. *Theophraſtus* diſtinguiſheth the transformation of theſe Catterpillers rightly in theſe words, in his ſecond of Plants: Firſt, of a Catterpiller is made an Aurelia, and of this a Butterfly, then of that a Catterpiller again. But whether this Aurelian Chryſallis be a living creature or not, we ſhall diſpute when we come to ſpeak of Inſects without feet.

Chap. V.

Of the quality and uſe of Catterpillers, and of their Antidotes.

All Catterpillers have a burning quality and pilling of the skin, and raiſing of bliſters. The moſt deadly is the Pine Catterpiller, yet they are all venomous, but leaſt of all thoſe that are ſmooth and without hair. The daughter of *Cælius ſecundus*, being at *Baſil* (ſaith *Geſner*) when ſhe had devoured ſome Cabbage Catterpillers in the garden, after much vomiting, her belly ſwelled, the ſwelling troubled her many years, and no cure would be found for it. ***William Turner*** a Divine and a learned Phyſician, the happy father of one ***Peter*** who was born to give phyſick to Phyſick it ſelf, preſcribed a purging potion for a noble Woman of ***England***, by the help whereof ſhe vomited up a hairy Catterpiller, which being ſwallowed by negligence, had long afflicted her with cruel torments: yet we may remember (ſaith ***Marcellus Virgilius***) that there are beaſts in the ſea of the ſame names, and called Catterpillers, and are far from being poyſon; and amongſt thoſe men that live by the ſea ſide, are the laſt diſh at their tables. We have ſhewed remedies againſt the miſchievous and venomous ones before, in the Hiſtories of Cantharides, Bupreſtis, and Pityocampes, for they admit of, and require the ſame cure. If you would have your garden or trees free from them, what webs you ſee hang on the naked boughs you muſt ſweep off in Winter; for if you let them remain till the Spring, they will breed before you can remove them. In a ſhort ſpace they devour all green things, and conſume the flowers: ſome anoint their trees with the gall of a green Lizard, or of a Bull, which as it is commonly reported, they cannot endure. The Countreymen uſe to ſtifle them with ſome brimſtone and ſtraw ſet a fire under the trees. The earth dug up under the root of the great bearing maſt tree, if it be ſtrewed in a garden, drives away Catterpillers, ſaith ***Hildegard.*** I ſhould paſs over the Remedy ***Columella*** hath preſcribed, as a ſhameleſs deluſion of ***Democritus***, did not ***Pliny*** and almoſt all the reſt approve of it, who meddle with husbandry: the words are theſe:

But if againſt this plague no Art prevail,
The Trojan Arts will do't, when others fail.
A woman barefoot with her hair untied,
And naked breaſts muſt walk as if ſhe cried,
And after Venus *ſports ſhe muſt ſurround*
Ten times, the garden beds and orchard ground.
When ſhe hath done, 'tis wonderful to ſee,
The Catterpillers fall off from the tree,
As faſt as drops of rain, when with a crook,
For Acorns or Apples the tree is ſhook.

They touch not Plants that are beſprinkled with Wine. ***Theophraſt.*** They preſently dye with the ſmoke of the herb ***Pſora. Aetius.*** Hence it appears (ſaith ***Silvius***) that the vulgarly called Scabious, is not ***Pſora.*** The Cabbage is free from Catterpillers, if it be fenced with Vetches. The Worms found in Fullers Teaſels, make them fall if they but touch the Cabbage Catterpillers. ***Pliny.*** Strew your Cabbage with Nitre, or ſalt earth, whileſt it hath loſt but three leaves, or ſtrew it with aſhes, and by the ſaltneſs of it, it will drive away Catterpillers. ***Geopon. Palladius*** in this matter prefers the Fig-tree aſhes. If Crabs or river Creviſh, were hanged up and expoſed to the Sun for ten daies, they will drive Catterpillers from Pot herbs. ***Cardan*** out of ***Palladius.*** Others wet the ſeeds juſt before they ſet them, in the bloud of a Catterpiller, or the juice of Marjoram, to free them from Catterpillers. A ſea Onion ſet or hung in a garden, hinders the Catterpillers from breeding. Some ſow Mints, others Vetches, others Wormwood about their gardens to drive away Catterpillers. Some not without cauſe, have Coleworts and Garlick leaves in ther gardens, by the fume whereof ſpread every way the Catterpillers fall down. ***Palladius***, where any man may eaſily read of many remedies againſt them. If a Horſe devour them, ſwellings ariſe, the skin of him grows dry and hard, his eyes hollow, ſaith ***Hercocles***, and he preſcribes this remedy: ***You muſt take the ſharpeſt Vinegar and Nitre three quarters of a pint, Vitriol a fourth part; mingle them and anoint the Horſes body, be careful that it enter not into his eyes.*** Now we ſhall ſpeak of the uſe of them in Phyſick, and in the Common-wealth. The Catterpillers web and covering (like to ſilk) being drank ſtops a womans courſes. ***Math.*** If it be burnt and put into the noſtrils, it ſtops bleeding at the noſe. The Catterpiller feeding on Privet, doth not only in a ſtrange manner allure the Carp, if it be put on the hook for a bait, but alſo the dung of it put into the noſtrils, preſently helps the falling ſickneſs in women, that proceeds from the Matrix, as I was told by a Midwife that was very experienced, and worthy to be believed. The Catterpillers that are upon Spurges (in the opinion of ***Hippocrates***) are very good for purulent wombs, eſpecially if they be dried in the Sun, with the double weight of dunghil Worms, and adding a little Anniſeed, bringing them into powder, and infuſing them in the beſt white Wine, and ſo giving them to drink. But heavineſs following in the belly with numbneſs, let the Patient drink a little water and honey after it. ***Hippocrat. lib. de ſuperfœt.*** preſcribes thoſe ordinary Catterpillers that are in troops to be given in drink againſt the Quinſey. ***Dioſcor. lib. 1. cap. 90.*** But unleſs they do profit by their ſecret quality, I think they are to be rejected for their open quality, eſpecially in that diſeaſe. The Germans know that the hairy Catterpiller dried and powdered, ſtops the flux of the belly. ***Nicander*** alſo uſeth them to procure ſleep: for ſo he writes. And ***Jeremy Martius*** thus tranſlates him:

Stamp but with oyl thoſe Worms that eat the leaves,
Whoſe backs are painted with a greeniſh hue,
Anoint your body with't, and whileſt that cleaves,
You ſhall with gentle ſleep bid cares adieu.

There are in prickly and hairy plants, ſuch as the Nettle is, ſome downy and hairy Catterpillers, by tradition are held to cure children, when they cannot ſwallow their meat for ſtraightneſs of their jaws. A Catterpiller that lives on Pot-herbs being bruiſed and anointed where a Serpent hath ſtung, is very good. ***Avicen.*** If you rub a rotten tooth often with a Cabbage Catterpiller, it will ſoon fall out of it ſelf, ſaith the ſame Author. Catterpillers mingled with Oyl, drive away Serpents. ***Dioſcor.*** If you anoint your hands or other parts with the ſame Oyl, it will keep them from being hurt by Waſps or Hornets. ***Aetius. Pliny*** citeth many ſuperſtitious things from the opinion of Magicians concerning the vertue of Catterpillers; which becauſe I ſee they are caſt forth of the Schools of Divines, and I in my judgement do ſecretly diſavow them, I will not repeat them here. They are meat alſo for divers Birds that we eat, and are uſeful for us, as namely Choughs, Starlings, Peacocks, Hens, Thruſhes, to ſay nothing of Trouts, Robbin-red-breſts, Tenches, Carps, Pikes, which are eaſily deceived by a Catterpillar bait. And if you deſire to know the waies of deceiving them; ſee ***Terentinus*** in ***Geopon.*** who is there (that I may not overpaſs the Phyſick of the ſoul given by Catterpillers) that hath not ſung of Gods mercies ſhewed to the wandring ***Iſraelites,*** when all ***Egypt*** ſwarm'd and was even drowned with the deluge of them? Alſo amongſt the ***Romans*** there was twice in one Summer ſuch a cloud of Catterpillers, ***Anno*** 1570. that put them in great fear, for they left no green thing in their fields, but devoured all. Though the fruitfulneſs of the next year did blot out the memory of this grievous puniſhment, yet we may not doubt but it put many of them in minde to lead better lives. God grant that we may eſcape by being corrected in the puniſhment of other men. Let us think no creature of God to be contemptible, for God can, if he pleaſe, make the ſmalleſt the greateſt judgement.

CHAP. VI.

Of the Whurlworm.

THE Greeks call it Σφονδύλην; which ***Gaza*** interprets by ***Verticillus*** : ***Pliny*** changeth not the Greek word, but cals it ***Sphondylam*** ; the Germans ***Eugerle,*** as ***George Agricola*** teacheth. ***Geſner*** writes it was called ***Twaer,*** becauſe it goeth diverſly with ſawed feet. The Northern Engliſh call it ***Andever*** ; the Southern, ***Whurlworm,*** that is, a ***Whirl*** or little hairy Worm with many feet : ***Vincentius*** cals it ***Zuvarola,*** becauſe it hurts gourds : ***Pliny*** was in an error, that makes this a Serpent, ſince the kinde of life and reaſon it ſelf numbers it amongſt Inſects. Should I here add the differences between ***Gaza, Pliny, Theophraſtus, Abſyrtus, Phavorinus,*** and the Scholiaſt on ***Ariſtophanes,*** and ***Eraſmus,*** concerning the nature and form of this Whurlworm, I ſhould indeed trifle, and rather bring fire to quench this fire amongſt wits, than water. But I rather collect out of their diſſenſions, that there are two kindes of Whurlworms; one about houſes, another in the fields. For ſo ***Ariſtotle*** and ***Abſyrtus*** write. ***Staphulinus*** is like to the Whurlworms that are about houſes. For ſaith he, your houſe Whurlworms copulate backward, and that in our ſight, as Beetles do, the male coming upon the female, and they ſtick long in copulation. Away then with theſe triflings of ***Pliny,*** that would have theſe to be Serpents, which never copulate backwards. ***Heſychius*** and ***Favorinus*** that follows him deſcribe them thus : ***Men ſay that the Whurl is like to an Inſect called*** Silphium, ***making a ſtinking ſmell, if any one touch it.*** But ***Ariſtophanes*** and his Scholiaſt, paint it out thus : ***A Whurl is an Inſect like to a Bloud-ſucker. Camerſius*** out of ***Ariſtophanes*** ſaith, ***a Whurl is a worm like a Leech, ſmelling moſt ſtinkingly.*** Whence I collect that there is a houſe Whurl like to ***Silphius,*** and ſmels ſo ſcurvily, which if you touch, runs away, and ſtinks for fear : for ſo ***Ariſtophanes*** hath it, ἐν εἰρήνῃ. As the Whurl flying from you breaks wind ſtinkingly. In which verſe I cannot but wonder that ***Eraſmus*** (I know not by what Atticiſm) cals the Whurl ***Telem, Chil. Adag.*** 3. ***cent.*** 7. ***Pliny*** ſaith it is a very ſmall body, and blackiſh, which if it be touched whileſt it lives, and after it is dead, ſends forth a moſt terrible ſmell. I confeſs ingenuouſly, that I never yet ſaw it nor know whether it be ſo by a contrariety in our land or climate. Concerning the field Whurl, we read thus in ***Theophraſtus,*** as ***Gaza*** hath interpreted, of ſmall wilde creatures that are bred outwardly, that is not in the roots but without them, none of them will feed on roots except the Whurl, and that leaves none untouched, for it is the proper nature of this Inſect. ***George Agricola*** a moſt learned Philoſopher, writes thus of Whurls that feed on roots : The Whurlworm is found under the earth wrapt up near the roots, (which truly I could never obſerve) and hence it hath its name ***Sphondyle*** from a little wherve or whirl. It is ſo long and thick as ones little finger, a red head, the reſt of the body white, but that it is black above, where it ſwels when it is full. This plague of Orchards, which wants not feet (for it hath ſix feet) and doth not creep, eats up the pils about the roots of young trees; nor doth it at all forbear the roots of wilde Cucumers, black Chameleon, Centaury, hogs Fennel, Birthwort, Briony, which no other Inſect whatſoever will touch. This Whurl without all doubt is the Inſect that ***Malleolus*** in his Book of his filthy Exorciſms brings in theſe words : There is, ſaith he, a certain worm which the Germans call ***Engar*** or ***Ingar,*** it liveth under the earth, is ſo long as ones middle finger, of a white colour, a black head, ſix feet, which by turning about, furrowing and turning up the earth, and eating the roots, maketh plants barren. *Ionas.*

The

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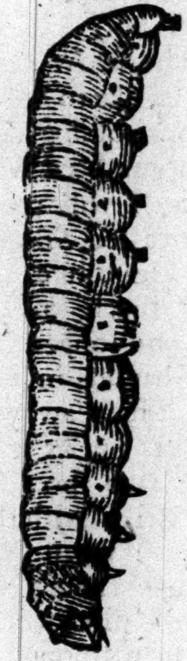
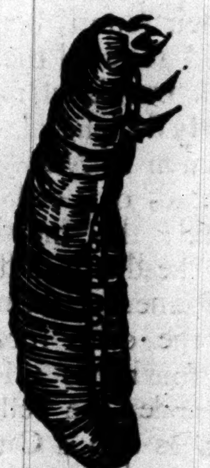
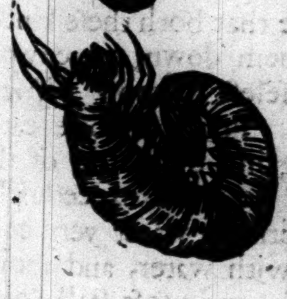
The third year after its generation, it breaks forth like flying Piſmires, which like their predeceſſors ſtick about trees, and conſume the fruit. Then they call it *Laubkefer*. In the Dioceſs of *Mentz* there were ſuch multitudes of them, that all remedies were attempted in vain, only they were driven away by charms (for ſo *Malleolus* reports) *Cordus* alſo ſpeaks of them. *Spondyles* are worms under ground, the Germans call them *Engar* or *Ingar*, called ſo from the Greek *ἔγγειοι*.

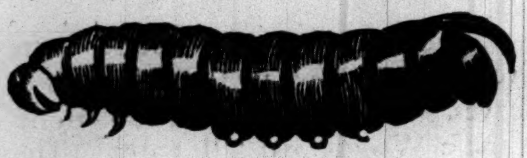
The next year after they are bred, they are alwaies transformed into *May* Beetles: they hurt roots much, and feed on all kindes, (be the bitter or venomous) of young ſprouts, and trees roots, ſo that ſuddenly the whole plants, or at leaſt the leaves ſhall fade. When the Gardners ſee this, they dig about the roots of trees, and fetch forth theſe Worms and kill them. They do us moſt hurt in the moneths of *April* and *May*; in *July* and *Auguſt* many are found with us in mariſh grounds, but there are no *May* worms but in *Devonſhire* and *Cornwall*, and in the weſt of *England*. This we muſt note diligently, that it fals out with Inſects as with Plants, that they change their colour with the climate and the earth. I have ſeen and I have by me a Whurl like a Catterpiller, that is of colour white from Aſh-colour, with a black head, if it be touched it collects it ſelf into a ball, and it fitly reſembles the Whirl in a womans ſpindle when they ſpin; whence it hath its name. It is benummed out of the earth, and cannot endure the air; being wounded, a moiſture comes forth of a pale black, wherewith one may write Letters as by enamelling. I have alſo a reddiſh Whurl that lives in the earth two foot deep, whoſe head is exceeding black, his mouth forked, the neck is reddiſh from yellow, the back is ſcarlet dye, the ſix forefeet are red-lead colour, the belly and all the body are perfect yellow, but that on both ſides near the belly there are eight red ſpots, for ornament. It is ſo long as ones middle finger, and Summer coming, it is transformed into a Fly. I have ſeen one alſo clear coloured, with a thicker body, blewiſh from the middle of the back to the tail. But from the neck it appeared more grayiſh, the head and feet were yellow, the mouth was forked and red: whileſt it is young the whole body is white, in age it grows yellow and blew, and it begins from the tail. It is wonderful how it will carry its body long and broad waies by a waving motion, and yet never change the place, and in moving it often changes colours. For whileſt it lies on the earth it is all white, but when it is forced to move, as if it were angry, it appears black and blew. It is altogether like to the great Worms in wood, as for the form of its body, but they cannot wreath and turn themſelves round. I have ſeen a great Fly bred from this Worm that hath four wings. We have another that was found at the roots of Onions; and almoſt of the ſame magnitude with the black and blew one, with a green head, and fourteen feet; it hath horns, and a tail green from white: the whole body is green, white, bloud red, noted with mingled colours: we call it Onion Catterpiller, we here repreſent the figures of them all. Now we ſhall add the opinion of *Joach. Camerarius* concerning Whurls, whoſe judgement I alwaies commend. It may be, ſaith he, Whurls are thoſe Worms that are found in the earth at the beginning of the Spring, that are almoſt white, or rather ſomewhat black and blew; which in Autumn become dark green, and with a ſhining skin, are coloured with a dark dye: their head is a light bay enclining to black, and ſomething hard, that it can eaſily gnaw roots. Catterpillers ſoon rowl themſelves up and die, and take other forms of Flies or Catterpillers. They are a finger thick, and an inch and half long, they have eight feet in the middle of their body toward the head. Our Countrey call them *Eardtworms*. *Guilandinus* ſaith that *Whurls* are Worms ſo called, that like a Whurl they are round about the roots of trees. Alſo other Worms that are black, ſomewhat reddiſh, and have ſhell covers, with many feet, like the *Scolopendra* (and they ſeem to be of kind unto it, but that they are rounder, and not ſo broad) are found in the earth, and are dug out at the beginning of Summer, and roll themſelves up the ſame way, as I ſaid, if any one touch them. They alſo call theſe *Engerlin*, in Germany, that are yellow Worms under the earth with a black head, and near to that ſmall feet, but have none in the reſt of their bodies. Theſe when they are dug up turn themſelves into a round form, and being laid in the Sun they preſently conſume; for they live only under ground and eat the roots of Plants. Who would not account all theſe Worms that turn themſelves round, to be amongſt Whurls? So far *Camerarius*. *Niphus* upon *Ariſtotle* ſaith that Whurls are a round

See *Joach. Camerarius.*









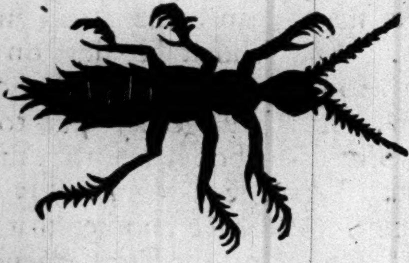
round kinde of Spider, in the middle of whoſe body a cavity is to be ſeen, that reſembles a Whirl of a ſpindle. But this was his dream againſt the Philoſophers minde, and he deceived us. What uſe there is of Whurls in Phyſick I never read, nor do I know. This is certain from the Prince of the Philoſophers, that Owls and night Ravens hunt after them, as alſo Moles, as it is probable: *Cordus* holds them to be venomous. In *Egypt* the Scorpions that they call *Sibylæ*, eat Whurlworms, as *Ælian* teſtifieth: but we ſhall paſs from theſe to thoſe called *Staphylini*.

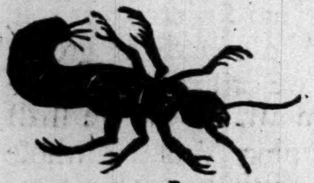
CHAP. VII.

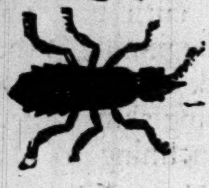
Of a Catterpiller called Staphylinus.

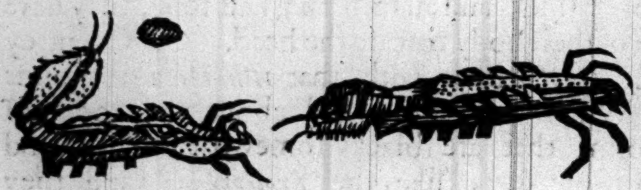
Gaza tranſlates *Staphylinos*, a Parſnip, either by ſleepy careleſneſs, or rather ignorance: but as it appears in the ſhort expoſitions of *Nicander*, the ancient Phyſicians knew it not ſufficiently. For the Scholiaſt writes that *Staphylinus* is a little creature like a Whurl: others ſay it is like the Spaniſh Fly. *Hippocrates* ſpeaks once of it, but deſcribes it not.

Ariſtotle treating of the diſeaſes of Horſes, cals it an incurable diſeaſe, if a horſe ſwallow a *Staphylinus*, that is like to a Whurl. But *Abſyrtus* writes thus: A *Staphylinus* is like to a Whurl that is about houſes, but is greater; it is bred every where in the fields, and goes holding up the tail. Whence I perceive it were no hard matter to know a *Staphylinus*, if the home bred Whurls were not unknown to us. But that I may do my part and ſatisfie my Reader, I will produce two Inſects with their figures, which I cannot tell whether they may be called *Staphylini* or not. But that they are not far different from them is more than a conjecture. The firſt (as you ſee) is all ſhining black, not much unlike to Beetles, but the body is more ſlender and longer. The whole body is two fingers ſquare or ſomewhat leſs in length, the tail is with two forks; which whileſt it flies away (for it will fly away and run very ſwiftly) it lifts up, as it were in its own defence, and thruſts out like two ſhort ſtings very white: but we never ſaw it ſting or ſtrike with them; and the ſtings are too ſmall and ſoft to enter: when he puts out theſe ſtings in anger, it pours forth with them a white and thick ſubſtance, but ſofter than a moiſt ointment. It lives moſt under ground, yet it is often ſeen amongſt corn above the earth. But I cannot ſay that it is like to the Whurl that *Ariſtotle* or *Abſyrtus* ſpeaks of. The countrey people in *Kent* hold this to be a venomous creature, and that Oxen are ſwollen by this poyſon as they are with eating *Long-legs*. It appears indeed that this *Staphylinus* is a venomous creature, not only from their report, but by the authority of *Ariſtotle* and *Nicander*. I received the ſecond kinde of *Staphylinus*, a Worm of a wonderful form, from a Nobleman *Edmund Knivet*, exactly deciphered with his own hand, and they are very common in *Norfolk* in *England*. He hath a ſmall head, of a dark colour from red, almoſt round; the mouth is ſmall and forked. Next the head it hath three feet on each ſide; the two former of them are ſhort (like to Catterpillers) the other four are almoſt of a bloudy colour, four times as long. In the middle of the body under the belly it hath eight feet that are blunt, as alſo a Catterpiller hath. The tail is bunchy and forked with two hairs. We learn hence that both theſe kindes are naturally venomous, becauſe two horſes eating hay and ſwallowing them down, were ſwoln all their bodies over, and died by them. In which diſeaſe it will not be uſeleſs to know *Abſyrtus* his remedy, that in the like caſe we may have it ready, and cure our horſes. For if a Horſe eat a *Staphylinus*, whileſt he feeds on hay or eats, he preſently caſts him out again, by reaſon of the ſharpneſs of the ſpirits of it, and as it were Vipers bloud. But preſently he ſwels exceedingly. firſt therefore foment the ſwellings, largely waſhing and rubbing them with ſalt water very hot: then take vinegar Lees, and put into them fine linnen cut, and boyl this with water, and anoint him all over: but when he takes his phyſick, let him remain in a hot houſe, and a ſoft ſtall, covered









red well with cloathes, and let a good fire be kept continually by him. Anoint him abundantly in the morning, then the third day waſh him well with hot water, and dry up his ſweat, then rub him in a cloſe place, and having rubbed him, anoint him with Nitre. And fear not though his lips and eyes ſwel, (for it uſeth ſo to fall out) for the Horſe will certainly recover ſuddenly by this means, and be as well as he was before. But whether theſe be the ſame with *Staphylinus* of *Cordus*, or the *Courſilles* in *France*, let indifferent men judge. They are found in Orchards ſometimes ſo long as ones little finger, and they make hillocks like to Moles, and there they ſleep. They chiefly do miſchief to Thyme and Elder, yet not ſo, but they hurt other plants and herbs alſo. If there be any that know any thing more certainly concerning *Staphylinus*, they are to be deſired, for Phyſick and Philoſophy ſake, that they will not refuſe to add their talent. So at laſt the natural Hiſtory of Inſects ſhall be enriched by their labour, and ſhall repay them not only great thanks, but alſo their part in a large increaſe.

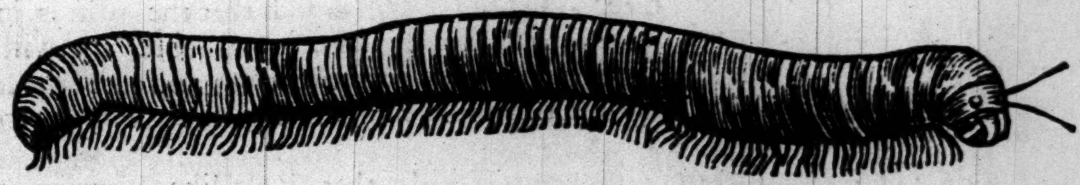
Chap. VIII.

Concerning the Scolopendræ and Juli.

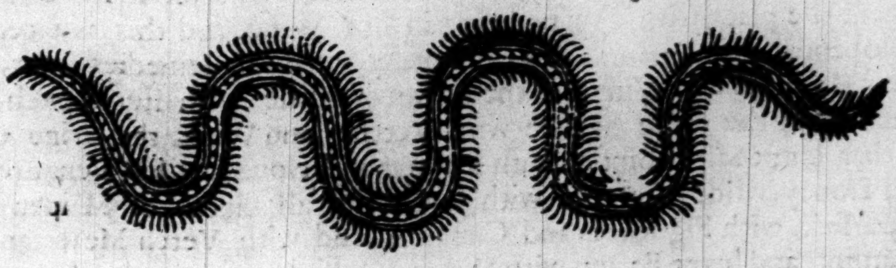
THE *Scolopendra*, and *Juli*, and *Cheeſelips* march in the laſt rank. They far ſurpaſs in the number of their feet, Catterpillers, Staphylini, and Whurlworms, and all kindes of Inſects, whence they are called Many-feet by a peculiar name belonging to them. *Ariſtotle* cals this *Scolopendra*; *Theophraſtus*, *Scolopia*; *Dioſcorides* (from the deſtruction of Serpents) cals it *Ophioctone*; *Varinus* and *Heſychius* call it *Amphydes phaganon*; others, Σήψ, aud ſome call it *Thouſand-feet*, and *Many-feet*; the vulgar Greeks call it *Scolopetra*; the Latines alſo call this *Scolopendra* and *Sepa*, and *dirty-hog*, and *hundred-feet*, *thouſand-feet*, *many-feet*; which three laſt names alſo they give to *Juli*. In Hebrew they call it *Ghazam*; in Arabick, *Alcamptia*, and *Alamula*, as *Silvaticus* teſtifies; *Albertus* cals it *Almuga*, *Altapua*; in the Poliſh Tongue, *Stonogroback*, *Gaſlauka*; in the Hungarian Tongue, *Zones*, *Hiragopap*, *Matzkaia*; in High Dutch, *Ein naſſel*; in Italian, *Centopede Vermi*; in French, *Chenille*, *Millepied*; in Engliſh, *Scolopender* and *Manyfoot*. In my judgement it differs as far from *Julus*, as a ſea Lobſter from a *Crevis*. They are indeed like to one another, but theſe are alwaies leſs, nor are they ſo miſchievous when they bite, nor ſo venomous.

The Name.

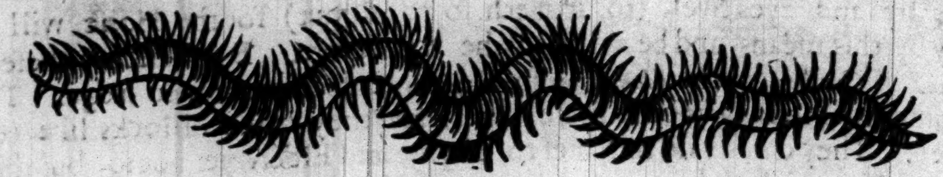
The great earth Scolopender is as long and thick as you have it pictured; the colour of the body is black from brown, and ſhining. To every inciſion a yellow little foot is joyned, that is, in the ſeveral ſides ſixty. It goeth forward and backward with equal eaſe. For it goes with the head forward, and with the tail forward; and therefore *Nicander* and *Rhodoginus* call it two heads. It hath the part between the head and belly not ſingle, but manifold; whence it comes to paſs that this kinde can live though it be cut in ſunder. This Scolopender being provoked bites ſo ſharply, that *Ludovicus Armarus* (who gave me one brought out of *Africa*) could ſcarce endure him to bite his hand, though he had a good glove on, and a double linnen cloth; for he ſtrook his forked mouth deep into the cloth, and hung a long time, and would hardly be ſhaken off.



Another was brought from new *Hiſpaniola*, which had on the midſt of the back a flame coloured line to adorn it; and a red ſide, and colour of the hair ſet it forth. It had feet like to hairs, and lifting it ſelf upon them all, it ran very ſwiftly: this is worthy of the greateſt admiration, that Nature having given to this creature a ſmall head, yet it hath given memory to it, and the rule of reaſon, not in pints and pitchers, but in the largeſt meaſure. For ſeeing it hath feet innumerable as Rowers, and many of them are from the Rudder the head at a great diſtance, yet every one knows his own office, and as the head directs, ſo they all frame their motion.



Another was brought to us from St. *Auguſtines* Promontory out of *India*, ſomething greater in body and feet: which had 70 black and blew inciſions, and twice as many light red feet.



I doubt not but more ſorts of Scolopenders may be found, of almoſt all colours except green; yet *Ardoynus* makes mention of one that was green. Each of them hath an inbred property, to go to the roots of ſword graſs (as *Theophraſtus* thinks). But *Robertus Conſtantinus* deſerves to be whipt, and ſo doth *Stephanus* that followes him, and *Ardoynus* himſelf, who invent that a Scolopender is firſt a Serpent, then hath eight feet, then a horn in its tail, and laſtly, it is a ſlow goer. *Albertus*, *Rhodoginus*, *Avicenna*, are to be blamed alſo, who affirm raſhly, that no Inſect hath above twenty feet, and they put the Scolopender in that number. Yet *Nicander* cals him two headed in theſe verſes:

The Scolopender hath each end a head;
And ſtings with both, untill that men be dead:
With feet like ores he wafts himſelf along, &c.

Yet by the favour of ſo great an Author, I might ſay that he hath but one head; though he can as eaſily move forward or backward with his tail conducting him, as with his head. And this I believe deceived *Nicander* and others. But he ſaith farther, that he bites at both ends; which is as falſe as the former; for he bites only with his forked mouth, and hurts not with his tail, otherwaies than by a venomous touch, and by putting forth poyſonous bloud.

Oppianus holds it to be more fierce than the ſea Scolopender, and ſo it is indeed: and I greatly wonder that *Grevinus Pariſienſis*, upon no authority, in his Book of Venomes ſhould oppoſe this.

All Hiſtories teſtifie that this creature is dangerous and venomous, and ſo much the more as it is more hairy. We read in *Ælian* that the *Rhytienſes* were driven out of their City by the multitudes of theſe creatures: and *Theophraſtus* affirms the like concerning the *Obterietes* in *Pliny*: therefore though we have ranked the Scolopenders in the laſt place, yet in executing divine vengeance, they may ſometimes challenge the firſt place. Countrey people do judge of fair weather by the frequent coming forth of the Scolopenders; and when they hide themſelves they foreſhew rain, as *Marcellus Virgilius* hath noted on *Dioſcorides*. *They have theſe uſes in Phyſick.* If they be boyled in Oyl, they take off hair with a little pricking, *Gal.* 11. *Simpl.* and *Aetius lib* 7. They are enemies to Wiglice, that are moſt ſtinking creatures, and kill them with their breath, or eat them alive. Again, Wiglice being either taken inwardly, or anointed outwardly, are a remedy for their bitings, by a reciprocal, and as it were emulating antipathy, as is manifeſt from *Pliny*, and *Ardoynus lib.* 6. concerning poyſons. When the land Scolopender hath bitten, the place is all black and blew, putrefies and ſwels, and looks like to the dregs of red Wine, and is ulcerated with the firſt bite. *Ægineta.* *Aetius* adds that the pain is intolerable. *Dioſcorides* ſaith the whole body pricks. All hold that this bite is incurable, and will admit almoſt no remedy. It hath (ſaith *Anazarbeus*) ſymptomes, prevention, and cure, the ſame as for the ſtinging of a Viper, *lib.* 6. *c.* 23. Againſt this diſeaſe ſome things are taken inwardly, ſome things are applied outwardly.

Amongſt inward Remedies, *Ægineta* commends Trifoly that ſmels like Bitumen, drank with Wine. *Dioſcor.* approves much of wild Rue, the root of Dragons bruiſed, the root, ſeeds, and flowers of Aſphodill, the branches and leaves of Serpol, Calaminth, the roots of Fennel and Birthwort, given with pure Wine, or Wine and Oyl. *Actuarius* gives Nix with Wine. *Pliny* commends Salt with Vinegar, or rather the froth of Salt as being the better. Alſo he highly eſteems of Horſe-mints, or wilde Penniroyal taken in Wine. *Aetius* bids give Wormwood and Mints with Wine.

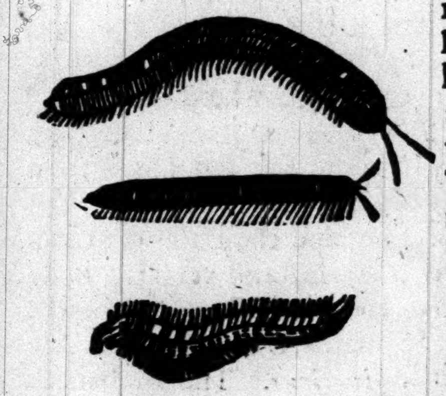
As for outward Remedies, firſt ſcarifie the place hurt, make deep inciſion, and draw out the venome by Cupping-glaſſes; then put in the juice of the leſſer Centory, boyle with a third part of ſweet Wine to the conſiſtence of Honey, and binde a leather over it for eight or fourteen daies. Then foment the place with a ſpunge dipt in hot Wine, and this is a certain cure for the bite of a Scolopender. *Anonymus.* *Pliny* alſo preſcribed divers remedies for it, as the dregs of Vinegar, waſhing the place with Vinegar, the flower of Millet with liquid pitch, Butter with Honey, the green Figs of the wilde fig-tree with Vetches and Wine, the Urine of the patient hurt and of a Wether, burnt Salt anointed with Vinegar and Honey, wilde Penniroyal with Salt, Salt with Tar and Honey, wilde Cummin with Oyl; and all kindes of Maiden-hairs. *Dioſcorides* commends Garlick, with Fig-leaves and Cummin, and with Vetch Meal and Wine, alſo the leaves of Calamint, and burnt Barley with Vinegar; alſo he commends a Fomentation made of ſowre Pickle: *Archigenes* bids foment the part with Allum-water: *Ægineta* ſaith, with much hot Oyl. *Nonius* preſcribes hot Oyl of Rue.

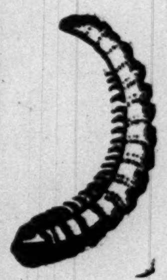
Some commend exceedingly both outwardly and inwardly ſuch things as are given againſt the biting of a Shrew. *Ariſtotle* writes that the Scolopenders are deluded and drawn forth with the fume of liquid Storax, and are eaſily taken whileſt they ſtick to the clammineſs of it.

Of the Juli.

The Name. THE kindes of the Juli follow next: which the Greeks call Ἰούλους; and that as I think not from their down, but from the tails of Walnuts and ſmal Nuts, whoſe hair being faſtned in a hard ſubſtance, repreſents theſe Cats-tails, whence they had the names of Juli. I know the Latines call them *Juli*, but I ſhould call them *Galleys*. For *Lycophron* called the Galleys of *Paris* that were ſwift with many ores, Ἰουλοπέζους. *Nicander* applies the ſame ſimilitude to Scolopenders; whence it may eaſily appear, that Juli and Scolopenders are like one to the other. The Spaniards call theſe *Centopeas*: the Italians, *Cento gambi*. It may be the Engliſh after me will call them Gally-worms: *Numenius* alſo called earth-worms black Juli, as *Athenæus* witneſſeth *lib*. 7.

Black Juli that feed on earth are called the earths bowels; yet unleſs they have many feet, they cannot be numbred or named amongſt the Juli. Juli are as I ſaid, ſhort Scolopenders, that for the number of their feet, exceed not only Hoglice, and all Catterpillers, but alſo all other Inſects. Some Juli are ſmooth, others hairy. I ſaw a ſmooth one in a Cabbage Lettice as thick as a ſmall river bulruſh, and of the ſame magnitude you ſee it here: it had a very black head, the back was of a golden colour, the belly was ſilver coloured from gray, the inciſions and hairy feet were ſo many that they eaſily overcame both the eyes and memory. The ſecond was all black, except a white line, which was drawn down the back, ſtraight from head to the tail. The third was a decayed yellow, his head and feet were red, the ſailyards, and the hairs growing near the tail, were black and blew. If you paint the fourth with a body blackiſh red, and his feet and ſailyards lighter, you have rightly ſet him out: we caught ſome of theſe coming forth of moſs growing on the barks of trees, and others lurking under trees and rotten logs. I could meet but with two hairy ones. The firſt was white of this form and figure, it crept on a wall, the ſhort hairs that grew on t were black. The ſecond had a black and blewiſh belly, and a back ſpotted with an uncomly yellow. The mouth was red, a black eye, the hairs were hoary. It lies hid in old decayed trees between the bark and the wood; and alſo amongſt ſtones that are overgrown with moſſe and thick downy hair. All theſe Gally-worms, if they be touched roll themſelves up, and become round. I cannot tell whether they are venomous or not, but if they be, O happy *Pennius*, who divers times with his bare hand provoked and killed them, and yet was never bitten nor hurt by them. *George Agricola* tels us of a Gally-worm of a brazen colour (but he cals it a Scolopender) his words art theſe: A little Scolopender is bred and lives in the logs of trees, or in poſts driven into the earth, (whence it hath its name) remove theſe or ſtir them, and it will come forth; otherwiſe it alwaies lurks there. It hath no feathers, but hath many feet: when it creeps it lifts up the middle of a body like a vault: if you touch it with a little wand or any other thing, it rols it ſelf together. It is of a brazen colour, a ſlender body, not broad, but three fingers long, or at moſt four.





Alſo it is found in another form, almoſt in the very ſame places, with a ſlender round body, the thickneſs almoſt of a thread, of an allayed bright bay colour, the feet are ſo many and ſo ſmall, that it is impoſſible to number them. It is four fingers broad in length; it remains under rotten trees and plants. *Avicenna* makes the Scolopender (which is alſo a Gally-worm) to have 44 feet only, and to be the palm of ones hand long; ſo ſmall and ſlender, that it can creep into the ears. *Lib*. 4. *Fen*. 6. *tract*. 5. *cap*. 19. This creature, ſaith he, hath no venome, or but very weak, and cauſeth no great pain: which is preſently taken away with the flowers of Aſphodils or with Salt mingled with Vinegar. Our Gally-worms (ſaith *Geſner*) if they be in the houſes, they will come together to St. Thomas Sugar, that is the moſt pure, (as Mice do to the beſt Cheeſe). Our Countreyman *Bruerus* (a skilful and laborious ſearcher of Nature) reports that he hath ſeen here in *England* Scolopenders, and kept them, that ſhined in the night, and in moſſy and broomy grounds ſhined with their whole body: who was no lier, and I willingly give credit to him; and ſo much the rather, becauſe *Oviedus* ſaith he obſerved the ſame in new *Hiſpaniola* in the fields, and *Cordus* did the like in *Germany* in moiſt cellars. It ſeems ſtrange that *Plutarch* relates, *Lib*. 8. *Sympoſ*. *problem*. 9. that a ſtripling at *Athens* caſt up a ſmall ragged creature, together with a great deal of ſeed: it had many feet, and walked exceeding faſt.

The Galley-worm found in cellers, burnt to powder, doth wonderfully provoke Urine. *Merula*. The Uſe. The bloud of Galley-worms, with the moiſture preſſed out of Hog-lice, is a divine and excellent remedy to take away the white ſpots of the eyes. *Arnold*. *Brev*. 1. *cap*. 18.

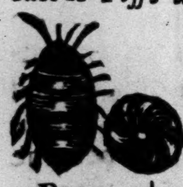
And thus much for Galley-worms, concerning whoſe Natures, I paſſe over the opinions of *Heſichius*, *Ariſtotle*, *Nicander*, *Lycophron*, *Ardoynus*, becauſe they are various, but not true.

Chap. IX.

Of Chiſleps.

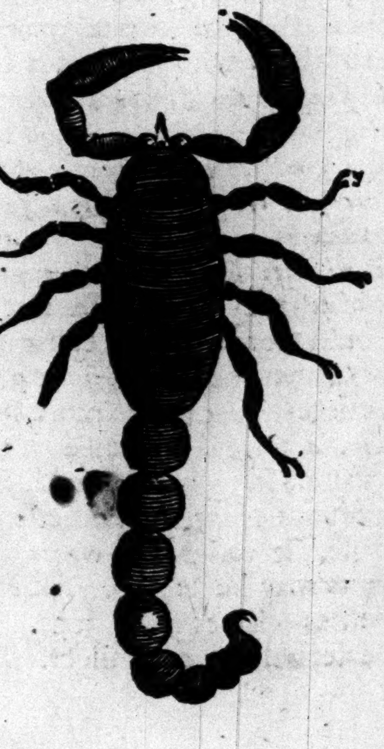
The Name.

Ariſtotle cals them ὄνος, the Greek Phyſicians, ὀνίσκος; *Theophraſtus*, ὀνίσκος; *Dioſcorides*, κυβαλίς; *Abſyrtus*, ὄνισκος; thoſe of *Aſia* called them κυάμιος, from the likeneſs of a Bean, ſaith *Galen*, for it looks like it, when the Chiſlep rols himſelf up into a round body. Or, becauſe, as our moſt learned Covntreyman *Stafford* ſaith, (who was preſident of the Minorites at *Worceſter* in the reign of *Richard* the ſecond) they are wont to come forth of the leaves and tops of beans, and to grow from thence. *Pliny* cals it τύλον, from the brawny hardneſs of the skin. Others call it ἴουλος, though for the fewneſs of its feet (for it hath but fourteen at moſt) and becauſe it cannot arch it ſelf, it ſeems to be a far different kinde from a Scolopender or Galley-worm. Farewel then all thoſe dreams of *Guillerinus*, *Vincentius*, and *Pliny*, concerning this matter: for we deny that theſe are Galley-worms. But it is called ὄνος, not from the form or ſlowneſs of an Aſſe, but becauſe it is of the ſame colour, as *Pennius* writes: For it is a little creature with many feet, Aſſe-coloured, breeding in moiſt places. *Dioſcorid. lib.* 2. *cap.* 37. *Gal.* 3. *de loc. affec.* & 11. *de ſimp. fac. cap.* περὶ δρακοντίου. The Latines call it *Aſellum*, *Cutionem*, *Porcellionem*; *Pliny* ſaid not well to call it *Centipes*, ſince it hath but fourteen feet: the Engliſh from the form call them *Sowes*, that is, little Hogs: from the place where they dwell, *Tylers-louſe*, that is, Lice in roofs of houſes: they are called alſo *Thurſlows*, or Jovial Lice, from a ſpirit that was not hurtful, to whom our Anceſtors ſuperſtitiouſly imputed the ſending of them to us. In ſome places alſo they call them *Cherbugs*, and *Cheſlips*, but I know not why. The Germans call them *Eſel*, *Eſelgen*, *Holtzwentle*, that is, Wood-lice, becauſe they are oft-times found between the bark and the tree: *George Agricola* cals it alſo *Shefflein*, and vulgarly *Keller Eſel*, as if you would ſay a Cellar-hog. The Saxons call it *Eſelchan* from its Aſſe-colour, as the Greeks, ὄνον; the Italians, *Porcelletto*; the French, *Cloporle*; the Spaniards, *Galmilha*; the Arabians, *Harva*, *Hanra*, *Gauda*, *Schachalochada*, *Kiren*, *Grix*, ſaith *Sylvaticus*. The Brabanders call it *Piſſe de Suege*. It is indeed a very ſmall Inſect, ſcarce a fingers breadth long, and half a finger almoſt broad; (I ſpeak of the greater) of a colour wanniſh black, eſpecially that is found in dunghils and in the earth; but that which is under tyles and buckets is a perfect Aſſe-colour. It hath fourteen feet, ſeven on each ſide; every foot hath one joynt, hardly to be perceived. It hath two ſhort ſailyards, that it may prove its way. Being touched it turns it ſelf round or (as *Galen* ſaith) into the form of a a Bean, whence it was called κυάμιος. The ſides about the feet are dented like a ſaw. It is bred under tyles, water-veſſels, in the pith of rotten trees, between the bark and the tree corrupting, as alſo under rocks, growing from moiſture putrefying. Then they copulate, and after copulation they lay eggs (whence comes a worm) that are white, ſhining, like to ſmall pearls; they are many, and heaped up in the ſame place, as we obſerved in the year 1583. they live on warm moiſture, and paſs the winter in the chink, or wals, or ſecret places of houſes. From the eggs firſt ſomewhat hard Worms are thruſt out, which for ſome time ſtick almoſt unmovable, and are white: at length like their parents, they ſuck the dew and moiſture. They are found alſo in hot and dry Countreys; but where they regain by the dew of the night and vapours, what moyſture was conſumed in the day. *Galen* deſcribes a Chiſlep thus: It is a houſe-bred living creature, with many feet, bred under watry veſſels, and dunghils, and if you touch it with your fingers it rols it ſelf up. It is clear that *Ariſtotle* knew it, becauſe he compares a Sea-louſe unto it, when his tail is taken off.



The Deſcription.

Chiſleps attenuate, open and diſcuſs, as *Galen* hath taught us out of *Aſclepias*. They ſeem contemptible to the ſight, but they are excellent for diſeaſes of the eyes. Alſo inwardly (for they are free from all poyſon) they are of great uſe; for being bruiſed and drank in Wine, they help difficulty of making water. *Dioſcorides*. To which Medicament he adds this: Take, ſaith he, 2 or 3 Chiſleps, boyl them in a little fiſh pickle, & drink of the pickle with water in two ſmal cups of an ounce and half apiece. *Pliny* uſeth them for the Stone and difficulty of urine thus: Take Mice and Pigeons dung, of each half a dram; two Hog-lice or Chiſleps bruiſed, drink it, and the pain will ceaſe, and you ſhall void either the Stone, or much ſmal ſand. We finde in *Geſners* papers, that *Marianus Barolitanus* affirms the ſame: *Galen* gives them drink in ſweet Wine, and ſo he cured many of the Kings Evill. *Aſclepias* moſt ſucceſſefully uſed this kinde of remedy againſt the Aſthma and ſhort windedneſs: Take Elaterium four grains, three Hog-lice from a dung-hil, well bruiſed, and drink it with an ounce and half of water. *Gal.* κτ' τόπ. *Aſclepias* alſo, building on the authority of the ancient Phyſicians, much commends live Hog-lice burnt in the fire, and taken to a ſpoonful: for by their property they cure Aſthma. *Hollerius* and *Johannes Agricola* make good this opinion by their practiſe. Some do torrifie in a diſh a ſmal quantity of them into moſt white Aſhes, and then give them with Honey. *Pliny* ſaith they cure ſhort breaths 21 being bruiſed with Athenian Honey, and with little hot water, drank through a reed, that the teeth and mouth may not grow black. *Aetius* for the ſame infirmity, gives five or ſix with Hydromel. And *Marcellus* the Emperick reports, *ch.* 35. that 21 Hog-lice ſtamped with the beſt Honey, and drank with water, will cure ſhort windedneſs, purſiveneſs, and ſuch as are almoſt choked, and the Leproſie alſo, beyond belief. *Pliny* writes that they are good in drink for Conſumptions, who farther maintains, that a penny weight of them given in three ounces of Wine to drink, will cure the pains of the loyns and hips. *Alexis* of *Piemont* ſubſcribes to this; but *Cælius Aurelianus* diſlikes this, and the like remedies from Inſects; being ſo perſwaded from the unuſualneſs of ſuch remedies, rather than from any hurt or inconvenience that proceeds from them. Experience confirms that many freſh Hog-lice well bruiſed and drank with Wine, Ale, Beer, or any convenient liquor, or applyed but outwardly, can cure almoſt all diſeaſes of the eyes that ariſe from any thing growing in them, or growing to them, (except the Cataract) which we obſerved in the former Chapter out of the Breviary of *Arnoldus*. For a Quinſey, ſaith *Galen*, κατὰ τόπ. they muſt be licked with Honey, and the outſide of the throat muſt be anointed with the ſame. Hog-lice boyled with oyl of Roſes and heated in a Pomegranate ſhell, and poured into the ears that are pained, do cure them. *Dioſcorides. Gal. lib. ſec. loc. & Eupor.* commanded to boyl 2, 3 or 4 in oyl, and to preſs out the oyl and drop it into the ears of thoſe were deaf, or had pains or tinklings in their ears. Oyl of Chiſleps dropped into that ear is next an aking tooth takes away the pain certainly, that ariſeth from a hot cauſe. *Aetius* 24. 27. Some mingle them with ſome convenient unguent and drop them into the ears. *Severus* (ſaith *Galen*) poured them into ulcerated ears with good ſucceſſe. *Faventinus* preſcribes 21 Chiſleps boyled in ſowr Oyl, for pains of the ears proceeding from cold: in which he ſhews that they muſt be anointed about the ears, and a little muſt be dropped in. *Cardan* juſtifies the ſame remedy by experience. For Wens, *Pliny* takes a fourth part of Roſin or Turpentine to the dunghil Chiſlep, by which Medicament (ſaith he) ſwellings under the ears, Kings-evils, and all ſuch tumors are cured. *Marcellus Empericus* hath the ſame, and *Avicenna* 2. 2. *cap.* 729. and from the authority of others, he adds, that Chiſleps taken in drink, cure the Cramp, and Alcuzes, which we have never known any to have ſaid beſides. If you often apply Oyl or Butter of Hog-lice to a pained head, you ſhall cure the pain. *Gal. Eupor.* 2. 91. and *Abſyrtus de quadrup.* Bruiſed, they cure the Tonſils, and the diſeaſes of the chops, *Dioſcor.* A live Chiſlep laid to a whitloaf, cures it; and it takes away ſwellings, if it be laid on with a third part of Roſin or Turpentine. *Pliny*. Take Unguent populeon j. ounce, Oyl of Roſes wherein Hog-lice have been boyled j. ounce and half, Saffron iv. grains, mingle them and make an unguent, that is a moſt noble cure for the Hemorrhoids, that ſwell and are painful. Others (ſaith *Alexander Benedictus*) boyl theſe Chiſleps with Fat or Butter, then they put to it the yolk of an Egg; and with this they aſſwage that cruel pain. *Pliny* ſaith, they cure all hardneſs of wounds, and Cancers, and Worms in Ulcers, being mingled with Turpentine. And to conceal nothing from you, I thought fit to add, that *Pennius* himſelf lying ſick of the Aſthma, uſed for a long time Hog-lice ſteeped in Wine: but having done it alwaies to no effect, by my advice at laſt he did twice or thrice take in the ſmoke of Brimſtone through a tunnel, and he grew perfectly well from that horrid ſymptome. Take oyl of Violets iij. ounces, wherein let four Chiſleps boyl till a third part be conſumed: it reſtrains a ſalt humour, being outwardly anointed. *An incertain Author*. Hens, water Lizards, land Frogs, and Serpents feed on Chiſleps, as *Theophraſtus* writes. *Ambroſe Paræus*, a Chirurgeon of *Paris*, relates that one vomited a ſmall living creature like to a Chiſlep: and ſuch a like thing *Solerius* hath written concerning a certain woman, upon the ſecond Book of *Aetius*.

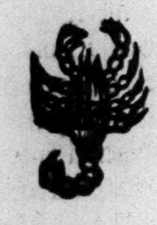


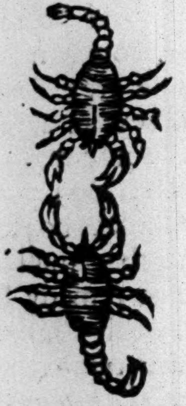
CHAP. X.

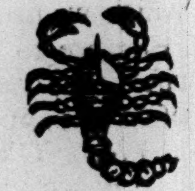
Of Land Scorpions.

IT is called σκορπίος in Greek, from ſcattering its venome, or as others wil have it, becauſe it creeps lamely. Alſo ῥάξ ſignifies a Scorpion, or a kinde of Scorpion, whereof *Nicander* ſpeaks in his Theriacks, the burning Scorpion muſt be preſſed down when he creeps upon his feet, being a deadly creature. It is doubtful whether this be a kinde of Scorpion; it hath legs or clawes, and a ſting in the tail. The Latines call it *Scorpius*, and *Pliny Scorpio*; *Cicero*, *Plautus*, *Varro*, and *Nonius*, call it *Nepam*, which name *Columella* uſeth often. In Hebrew it is called *Acrab*, and *Cancrab*, becauſe it pricks thoſe that tread on it. In Arabick it is *Natarab*, *Achrab*, *Necharab*, *Hacharab*, *Acrob*. *Rhaſis* cals it

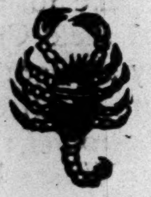
Conches, *Pandactarius*, *Satecollen*; in Spaniſh it is *Eſcorpion*, or *Alacram*; in Italian, *Scorpione*, *Scurrificio*; in High Dutch, Engliſh, French, Brabant, it is called a *Scorpion*; in the Sclavonian language, *Niedaradeck*; in Illyrium, *Iſtir*; in Daniſh, *Wollocow*; in new Hiſpaniola, *Alacrant*. But that which hath a bunch on its back and drawes the tail after it rolled up, *Silvaticus* cals *Algararat*. It is an Inſect with a body of the faſhion of an egg; as it were ſmoked all over, at the bottome a tail comes forth, joyned with many round knots, the laſt as it ſeems longer than the reſt, ſo that only is armed with a ſimple or double ſting, and ſemething bended backward toward the end: it hath eight feet, and legs forked with claws, and ſtrong pinſers; it hath a head as the others have, lying hid in the top of its breſt, wherein you can perceive very ſmal and almoſt no eyes, that Authors do ſcarce mention them. All Scorpions have tails, or no tails. Some of the tailed Scorpions are fenced but with one ſting, but others with two; yet they do not differ in kinde and nature. *Nicander* deſcribes ſeven kindes of land Scorpions. The firſt is white and not deadly. The ſecond (ſaith he) hath a red mouth, from whoſe ſting ariſeth vehement heat, feaveriſhneſs, and intolerable thirſt. *Ælian* ſaith the ſame. The third is wan and blackiſh, whoſe ſting cauſeth a ſhaking palſie, and a Sardonian laughter, and vain, like to that of fools. The fourth is of a colour inclining to green: this ſo ſoon as it hath ſtung a man, a cold and ſhivering poſſeſſeth him, ſo that in the hotteſt Summer he will ſuppoſe himſelf covered with froſt. This kinde hath many knots between ſeven or nine, which is alſo the cauſe that he wounds ſo deep, by reaſon of the length of his tail. The fifth is black and blew, or of a pale colour, of a large ſtretched out belly, for it feeds on graſs, and is unſatiable. It not only ſtings with the tail, but alſo bites with venom'd teeth. *Nicander* cals its poyſon βόβρωσις, becauſe a Bubo riſeth on a man that he ſtings. The ſixth is like to a ſhore ſea Crab, yet not without a tail, but with a greater body and almoſt round, ſo that it repreſents a Crab with a tail. *Matthiolus* ſaith that he ſaw of this kinde ſome that were black, murrey and green in the County of *Arcinna*, not far from the River *Sarcus*. The ſeventh is like a Grampel: alſo it hath claws greater than that; and this kinde is produced by Crevis on the dry ground, that are entred into ſome hollow places to eſcape the Fiſhermen: in which places if they die or corrupt, theſe kinde of Scorpions grow from them: as *Ovid* moſt elegantly hath ſet it down:







Take off the claws of Crabs that uſe the ſhore,
And from their bodies with earth covered ore,
A Scorpion growes threatning with crooked ſting.



Ælian cals this the flame-coloured, for it is like the Crab that becomes red with boyling. There is another kinde of Scorpion which we call *Rhaſis*, and the Arabians *Scorpion*, for *Nicander* and the Greeks never ſaw it: it is very bunchy, and runs ſwifteſt of them all: it hath a tail for its ſmall body that is very great; it ſeems to be pale, but the ſting put forth is very white: *Rhaſis* cals it *Jararets*; *Albuchaſis*, *Grati*; *Avicenna*, *Algeraratie*. It is found in the Eaſtern Countreys, eſpecially in *Coz*, and in *Haſcari*, as *Gordonius* notes. Philoſophers ſay that the ſtings of other Scorpions infuſe a cold poyſon: the *Arabians* ſay that only this one, infuſeth poyſon that is hot. I ſaw one brought forth of *Barbary*, and we here give you the picture of it. The ſting of all the tailed Scorpions is hollow, whereby they caſt poyſon into the wound: as *Ælian* reports *l. 9. c. 4.* To which *Pliny* ſubſcribes, *lib. 9. cap. 37.* and *Nicander* in his *Theriacks*. Yet our *Galen* is of another minde, *lib. 6. de loc. aff. c. 5.* where he ſpeaks in theſe very words almoſt, to thoſe who aſcribed a ſpecifical quality of hurting or helping to humours or vapours. *But the ſting of the Scorpion deſerveth much more to be admired, which in a very ſhort time cauſeth extreme ſymptomes; and that which is injected when it ſtingeth, is either very little or nothing at all, there appearing no hole in its ſting: And indeed, when we ſen that from the teeth pricks and ſtings of ſome creatures, fiſhs or plants, there is ſolid poyſon conveyed into the wound by them; what need we fly unto ſecret bladders, and perchance ſuch as were never ſeen, that lie hid under the root of their ſtings, ſuch as fruitful wits have rather invented, than ſolid judgements and thoſe that were ſtudious for the truth?* As I ſaid, they have all ſix feet, beſides the clawes that are their fore-legs, as crabs have, (which I ſhould more willingly call arms) ſome of them (if you look narrowly) are forked: their tail conſiſts ſometimes of 6, 7 or 9 knotted joynts: in the end of the tail is one hollow ſting, two ſometimes, (but that is more ſeldome). If it had its ſting any where but in the tail (ſaith *Ariſtotle lib. 4. Hiſtor.*) becauſe it moves it ſelf by ſteps, it were unuſeful to ſting withall: *Ælian* ſaith, that its ſting is very [illegible]ll, and ſcarſe viſible: out of whoſe inviſible pipe, if there be any, ſuch a venomous ſpirit, or moiſter humour is poured in by a wound made, that is ſcarſe perceived or ſenſible. It walks ſide-waies as Crabs
Lib. 11. c. 25. do, alwaies moving the tail ready to ſtrike, that no opportunity may be let ſlip. The Males are the fiercer, ſlenderer, longer, and more ſpotted on their bellies, clawes and ſtings. The Females again (as *Avicenna* well obſerves) are greater, fatter, greater bellies, and milder. The poyſon

ſon of the Male is alſo more dangerous, as *Pliny* thought, the Female is more gentle; but all their venome is white, unleſs *Apollodorus* deceive us. It is apparent that they which have ſeven or nine joints on their tails, are the moſt curſt: many have but ſix, it ſtrikes athwart and bendingly. All of them have their poyſon more violent at noon day, and in Summer, when they are hot with the Sun-beams, and when they are thirſty and are unſatiable for drink. The plague of it ſeems intolerable, and which with a heavy puniſhment deſtroys a man with a lingring death in three daies. Their ſtinging is alwaies mortal for maids, and moſt commonly for all women: and for men in the morning, before they have caſt out their venome by ſome accidental ſtroke, and are new come forth of their holds. It is the property of Scorpions, that they will not ſting the palm of the hand nor ſmooth parts, and no where unleſs they feel the hair. Scorpions, as *Pliny* ſuppoſeth, will hurt no living creature that wants bloud: which Dr. *Wolfius* of *Turin* a moſt learned Phyſician hath proved to be falſe: for he ſaw, as he reported to *Pennius*, a Viper ſhut up in a veſſel with a Scorpion, and they killed one another with mutual bitings and ſtingings. And *Ælian* writes, *l.* 8. *c.* 13. that they do fight and contend with Vipers, and all kinde of venomous Inſects for their meat: *Geſner* ſaith it is certain that a Viper will devour a Scorpion: and from thence his bite will be the more grievous. Alſo *Theophraſtus* writes that by the ſting of Scorpions Serpents will dye, and not men. But *Galen* depending on experience, hath proved it to be falſe, and appeacheth it for a lie. *Pennius* ſhewes the fraud of *Ælian*, relating, *lib.* 6. *c.* 23. the wonderful fraud of Scorpions: but ſince I obſerved the ſame in *Italy*, I will maintain the truth of the Author, and free him of it. We know that the skill men have in that Countrey, they employ it all to eſcape from the Scorpions: whereupon they uſe ſandals to defend themſelves, and hang their beds on high from the ground, they place the props or ſupporters of their beds far from the wals, and ſet them in veſſels full of water, and many other inventions they have to deceive or to deſtroy the Scorpions. But the Scorpions get up to the roofs of houſes, and if they can finde any tyle broken they will remove it, and one of the ſtrongeſt of their Captains, (truſting to the force of his claws) hangs down by this chink, and his tail hanging down, then another upon his back comes down as by a ladder, and takes hold by the others tail, and a third takes hold of the ſeconds tail, and a fourth by his tail, and ſo the reſt, until ſuch time as by links they can reach the bed, then the laſt comes down and wounds one that lies aſleep in his bed, and runs back again by the links of his fellowes, and ſo all the reſt in order ſhift away, unloſing as it were the chain, untill they are all got up again upon one anothers backs. Alſo *Clem. Alexan.* 1. *ſtromat.* makes mention of this property. But they are not all venomous, nor do they hurt or ſting all men alike. For they do not live in *Sicily*, and if there be any there, yet they do no hurt; and therefore the *Pſilli* loſt their labour when they undertook to free *Italy* from this miſchief that was a ſtranger to them, in hopes of gain. *Plin. lib.* 11. *cap.* 25. *Ariſtotle* writes of the ſame thing concerning *Pharos lib.* 8. *Hiſtor. c.* 29. of the Iſland *Malta*, *Diodorus lib.* 4. *cap.* 3. of the Countrey *Noricum*, *Joſeph. Scaliger*, *exerc.* 189. 5. where you ſhall come in no place but you ſhal finde abundance of them, and yet they either ſting not at all, or elſe there is no danger unto men by it. But now in *Egypt*, *Sicily*, *Africa*, and *Albania*, they wound mortally, as we read in the Books of *Alexander de Alexandro*, *Pliny*, *Dioſcorides*, *Strabo*. In *England*, *Scotland*, *Ireland*, and *Gaſcony*, Scorpions cannot live, nor in the colder Iſlands more Northward. For though they cannot well bear the heat of the Sun by day, and therefore lie under ſtones all day; yet it ſeems they want no leſs heat in the night, for love whereof they come not only into chambers, but get into feather beds, and lay themſelves down ſometimes cloſe to thoſe that are aſleep. Men report many things concerning the Countrey of *Trent* ſet free from the deadly ſting of Scorpions by the prayer of St. *Vigilius*. But it is at the Readers choiſe to take it for a Truth or for a Fable. In *Scythia* it is far otherwiſe, for there if a Scorpion ſting a Man, a Hog, or any Beaſt or Bird, they are certainly killed. *Cardan* ſaith that ſuch as wound mortally are ſeldome bred. But *Matthiolus* reckons up an army of deſperate ſymptomes that happen there, eſpecially in *Hetruria*, by the ſtingings of Scorpions, ſometimes joyned with death. And *Ælian l.* 8. *cap.* 13. reports that in *Æthiopia* mens lives are not only endangered by the ſtinging of the Scorpions; but if they do but tread on their excrements, their feet bliſter, and they can hardly be cured. He cals theſe Scorpions *Sibrittas*, they feed on Vipers, Blind-worms, Lizards, Spiders, and other venomous Inſects: whence they are ſo forcible with poyſon, and have a kinde of graduation (that I may uſe *Paracelſus*) in the uſe of it.

Lib. 19 c. 4.

Ariſtotle ſpeaks of ſome Scorpions in *Caria* that are very loving to ſtrangers. (*Ælian* reports that this is about *Latmus* a mountain of *Caria*, where they are ſacred to hoſpital *Jupiter*, and do not ſting any ſtranger; or if they do, they do them no great hurt, but they kill the inhabitants preſently when they ſting them. A Lion whenſoever he ſees a Scorpion flies from him as from an enemy to his life: witneſs *Phyſiologus* and St. *Ambroſe* gives credit to it. Men ſay that ſuch are never ſtung by Waſps, Hornets, or Bees, who are ſtung by a Scorpion. *Pliny*. Their Generation is twofold, common by *Copulation*, more ſeldome, (ſo far as we know of it) from *Putrefaction*. Some maintain that they are not bred by copulation but by exceeding heat of the Sun. *Ælian lib.* 6. *de Anim. cap.* 22. amongſt whom *Galen* muſt firſt be blamed, who in his Book *de fœt. form.* will not have Nature but chance to be the parent of Scorpions, Flies, Spiders, Worms, of all ſorts, and he aſcribes their beginning to the uncertain conſtitutions of the Heavens, Place, Matter, Heat: but doubtleſs they do copulate, and they produce little worms alive (which I

Their Generation.

Nature.

have ſeen) they are white and like to eggs, and they ſit upon them to hatch them. So ſoon as their young are brought to perfection by them, they are driven away by their young, as it fals out with Spiders alſo, (eſpecially thoſe are called *Phalangium*) and they are deſtroyed by their young ones in great numbers. Scorpions are fruitful creatures, for oft-times they bring forth eleven. Some alſo ſuppoſe that they devour their young (namely *Antigonus*) but only one that is more cunning than the reſt, which hides it ſelf about the dams legs, and ſo eſcapes the danger of its ſting and biting. This afterwards revengeth the death of all the reſt, and kils its parents from above. They bring forth twice a year, namely in Spring and Autumn. The original of Scorpions from putrefaction is more rare, and it is many waies. For they are bred from Crevis corrupted, *Pliny lib.* 11. *cap.* 25. and from the carkaſs of the Crocodile, as *Antigonus* affirms, *lib. de mirab. hiſt. cong.* 24. For in *Archelaus* there is an Epigram of a certain *Ægyptian*, in theſe words:

The carkaſs of dead Crocodiles is made the ſeed,
By common Nature, whence Scorpions breed.

L. 10. c. 12. *Ariſtotle* adds further, that from water Mints corrupting, Scorpions are bred. And *Kiramides* and *Pliny* ſay they breed of Baſil. An *Italian* that delighted much in the ſmell of Baſil, a Scorpion bred in his brain, which afterward cauſed moſt vehement, and long during tortures, and laſtly death. *Hollerius, lib.* 1. *cap.* 1. of his practiſe. *Geſner* heard as much of a French maid, as he teſtifieth with his own hand writing. Doctor *Banchinus* ſecond to none for Anatomy, reported to Doctor *Pennius*, that he hid Baſil in a wall at *Paris*, and after a certain time he found two Scorpions in the ſame place. *Chryſippus* therefore not without cauſe, diſpraiſed Baſil to many men. There are ſome that maintain that if a man eat Baſil the day he is ſtung with a Scorpion, he cannot eſcape death. Others ſay, that if a handful of Baſil be bruiſed with ten ſea Crabs or river Crabs, and be left in a place where Scorpions haunt, all the Scorpions will come about it. *Pliny lib.* 20. *cap.* 12. But *Dioſcorides lib.* 2. 135, and *lib.* 32. *cap.* 5. ſaith that Crabs will kill Scorpions, if they be put to them with Baſil. *Albertus Magn. lib.* 19. *anim. cap.* 18. Some are of *Avicenna's* opinion that they breed of corrupt wood, and are made many waies.

The place conduceth much to their generation and production. For in *Hiſpaniola*, the *Canaries*, *Numidia*, *Scythia*, *Peſcara*, *Barbary*, *Æthiopia*, there are ſuch multitudes of Scorpions, that the inhabitants are oftentimes forced to forſake their habitations: *Oviedus*, *Thevetus*, *Leo Afer*, *Pliny*. The Countrey about the Lake *Arrhata*, in the *Eaſt Indies* near the River *Eſtamenum*, is ſo fruitful and ſo peſtered with Scorpions, that the inhabitants not knowing what courſe to take, left the place to them. *Ælian lib.* 17. *cap.* 40. When you are two daies journey from *Suſa* in *Perſia* into *Media*, you ſhall light upon an infinite number of Scorpions, whereupon the King of *Perſia* being to ride that way, commands the Citizens three daies before to hunt the Scorpions, and aſſigns a very great reward for thoſe that catcht moſt of them. If he ſhould not do ſo, by reaſon of the multitude of Scorpions lying under every ſtone, there could be no paſſage. *Ælian. lib.* 15. *cap.* 26. The *Eaſt Indies*, as *Agatharſis* teſtifieth, and *Africa* alſo, breeds abundance and very great Scorpions, which alſo wound with their ſtings as the others in *Europe* do. The Scorpions of *America* are the ſmalleſt of all, yet the moſt venomous, next to thoſe of *Africa*: their poyſon works ſo ſuddenly, that it immediately flies to the heart and kils the party that is ſtung. The people of *Noricum* near the *Alpes*, have in their Countrey many Scorpions, but (which is wonderful in Nature) they are all harmleſs, as *Scaliger* affirms. In *Pharos* alſo, and the Territory of *Avarrium*, the Scorpions (as we ſaid before) do no hurt. In ſome places of **Helvetia** (as about *Rappiſvill*) there are found very ſmall Scorpions, and innocent. *Geſner*. So it is alſo in ſome Countreys of *Germany*. In new *Hiſpaniola* there are a great many Scorpions, but not very venomous; there is ſome pain that followes their ſtinging, but it is not great, nor of long continuance, and men are more hurt by the ſtings of Waſps or Bees: unleſs it were ſo that the Scorpions were faſting, or newly wounded. *Manardus*. But the Scorpions in the Iſland *Ferrata* (which is one of the fortunate Iſlands) and *Coptum* in *Ægypt*, cauſe great pain, and their Venome is mortal. In *Caſtile* a Countrey of *Spain*, the countrey folk oft-times whileſt they plough up the ground, do finde innumerable Scorpions, cluſtered together like Piſmires, where they lye hid all the winter. *Matthiolus*. The colder Countreys have no Scorpions, as *Gaſcony*, *England*, *Ireland*, *Scotland*, *Denmark*, and great part of *Germany*, or if there be any there, they are not venomous. *Ælian* reports a wonderful thing concerning the Prieſts of *Iſis*, which in *Copto*, a City of *Egypt*, where there are abundance of deadly Scorpions, they can tread upon them, and caſt them on the ground, and yet receive no harm by them. Alſo *Pſylli*, a people of *Africa* cannot be hurt nor ſtung by Scorpions. For when they come to any venomous creature, it preſently becomes ſtupid, as if it were charmed or ſtruck dead, that it cannot move. Alſo all their Hogs, but not the black ones, (for if they be ſtung they die preſently) are free from their ſtings. Laſtly, a Scorpion nor any other venomous beaſt, doth not hurt a Stellio, an Aſcalabotes, a Crab, a Hawk, as *Galen ad Piſonem*, and our friend *Geſner* have obſerved.

Their Food. They live by eating the ground, and in ſome places they feed on Herbs, Lizards, Blinde-worms, Whurls, Beetles, and all poyſonous beaſts. *Ælian*. But he that ſhall tread on the excrements

Their Uſe. will have his feet bliſtered. The Hens, Ibis, Vipers eat abundantly of them, whence *Ariſtotle* cals the Viper σκορπιόμαχον. And they are not more fit for their food, than they are a remedy

for

Their uſe in Phyſick.

for us. For being laid to their own wounds they made, they cure them, as is generally known. Alſo a Scorpion bruiſed reſiſts the poyſon of a Stellio. *Pliny.* Some bruiſe them and drink them in Wine, caſting away their tails. Others lay them on burning coles, and perfume the wound, and then ſtrew the Scorpions aſhes upon it. Some binde them to the wound, being bruiſed with ſalt, Linſeed, and Marſh-mallowes. Againſt the Stone, *Lanfrancus* his powder: Take 20. live Scorpions, cloſe them in a pot with a narrow mouth, and with a ſoft fire burn them to aſhes, which is a wonderful remedy againſt the Stone: A Scorpion torrified and burnt to aſhes and taken with bread, breaks the Stone of the bladder. *Author ad Piſonem.* Three Scorpions cloſed in a new earthen pot, and covering it with a cover well luted, with a fire made of Vine branches, bring them to aſhes in an oven; the Doſe is 6 grains with ſyrup *de quinque radicibus*: it wonderfully drives forth ſtones of the kidneys. New Authors exceedingly commend the aſhes of Scorpions amongſt the remedies againſt the Stone, and the oyl of them injected into the bladder, and anointed outwardly. *Alexand. Benedictus, Aggregator,* and *Leonellus Faventinus* out of *Galen* (*Eupor.* 3) teach us to burn three ſmall Scorpions, and to give their aſhes in ſyrup, or a decoction, or ſome confection proper for it, to break the Stone. And *lib.* 2. he bids us to mingle them with fat, being calcined, and ſo to exhibit them; becauſe otherwiſe the Patients would abhor the eating of them, wherefore they may be given without ſuſpicion. That Medicament of *Abolaus*, that *Arnoldus* praiſeth ſo much, is made of the aſhes of Scorpions, as you may ſee in 2. *Breviarii cap.* 18. as alſo the admirable ſyrup of the King of *France* againſt the ſtone, which is deſcribed in the ſame Book and Chapter. *Rondeletius, capite de calculo,* in his practiſe, maintains that a Scorpion is cold, and therefore to drive out the Stone we muſt uſe the compound, and not the ſimple oyl of Scorpions. *Matthiolus* teacheth to make that compound oyl, *Commentar. pag.* 1407. 20. But before him, *Luminare Maius*, made that after this manner. Take round Birthwort, roots of Gentian, Ciperus, Barks of Capers, of each j. ounce, oyl of bitter Almonds j. Kiſt. let them ſtand in the ſun 30 daies; then add to it 15 Scorpions, and ſhutting the veſſel again very cloſe ſet them in the ſun ſo many daies as before. Then ſtrain the oyl and keep it for your uſe. Others prepare it thus: Take old Oyl as much as you pleaſe, put as many Scorpions into it as you can take in *July* (for then are they moſt venomous and fitteſt for this remedy) add to them white Dittany, leaves of Wormwood, Betony, Vervain, Roſemary, of each j. handful, ſet them a ſunning for a long time, then diſtil them in balneo in a Limbeck. It is called St. *Bernards* Oyl. It powerfully provokes urine. Anointed on the groin, it is prevalent againſt the bitings of Scorpions, how venomous ſoever. It drives out worms miraculouſly. *Braſſavolus.* Of Oyl of Scorpions and Vipers tongues, is made a moſt excellent remedy againſt the plague, as *Crinitus* teſtifies, 1. 7. *Manardus* ſaith that Oyl of Scorpions is now made with old Oyl, adding many medicaments thereto commended againſt poyſons, and it is admirable in the plague, and againſt all venome. I know a man that having only this remedy, made no reckoning of the greateſt plague; and had not only preſerved himſelf but his ſervants alſo, whom he ſent to viſit people that were ſick of the plague; and I know very many that eſcaped only by anointing themſelves, having drank the moſt deadly poyſons. So ſayes *Manardus.* A liniment of Scorpions againſt the plague, and all poyſons, is deſcribed by *Fumanellus, lib. de cur. peſt. cap.* 12. A Scorpion is good alſo againſt a wound given by a Viper, ſaith *Galen l. de ſimpl. Samonicus* commends them highly againſt pains in the eyes, in theſe verſes:

If that ſome grievous pain perplex thy ſight,
Wool wet in oyl is good bound on all night.
Carry about thee a live Scorpions eye,
Aſhes of Coleworts if thou do apply,
With bruiſed Frankincenſe, Goats milk, and Wine,
One night will prove this remedy divine.

If any one troubled with the Jaundies take Scorpions bruiſed in Wine and Honey, *Galen* ſaith he ſhall quickly finde help. *Kiranides*, againſt a Quartain ague, Quotidian, or Tertian, preſcribes a Scorpion put into a glaſs of Oyl about the wane of the Moon, and kept there; and with this Oyl anoint the whole body on the joynts, and the ſoles of the feet, and the palms of the hands, very well before the coming of the Ague. *Plinius ſecundus* ſaith, that a Quartan Ague, as the Magicians report, will be cured in three daies by a Scorpions four laſt joynts of his tail, together with the griſtle of his ear, ſo wrapt up in a black cloth, that the ſick parent may neither perceive the Scorpion that is applied, nor him that bound it on. But let theſe ſuperſtitions paſs, and we ſhall ſpeak ſomething of Antidotes againſt Scorpions.

Preventions againſt the ſtinging of Scorpions.

Firſt therefore of *Prophylacticks.* Magicians deny that a Scorpion can paſs over if he be compaſſed in with a branch of Turnſole: and the herb laid upon him kils him. *Pliny.* A ſmoke made with Brimſtone, Galbanum, and an Aſſes hoof, drives away Scorpions. *Rhaſis.* Take Storax, Arſenick, Sheeps-dung, fat of the caul of Sheep, equal parts, diſſolve them in Wine, and make a fume by the holes of Scorpions. If a Radiſh cut be put into their holes, they will not come forth. A Scorpion burnt is good, the liver of an Aſſe, Sandaracha, with Butter or Goats ſuet to make a fume. *Varignana* and *Diophanes in Geopon. Rhaſis* commends the root of Elecampane carried about one. *Macer* writes of Houſleek thus:

Men ſay that Houſleek hath ſo ſoveraign a might,
Who carries but that, no Scorpion can him bite.

If a man anoynt his hand with an herb called *Paris*, or with the juice of the root, he may ſafely take a Scorpion in his hand. *Flaminius.* Grapes preſerve men from the ſtingings of Scorpions, as alſo Filberds carried in their Purſes. *Aetius.* Alſo the ſeed of wilde Docks either drives them away, or their ſtinging is not mortall. *Dioſcorid.* Who alſo ſaith from the *Africans*, that Baſil will do the like. Larks ſpur, and wilde Campions alſo makes them ſtupid and aſtoniſhed: The ſame Author. And ſaith he, they report, as long as any man hold Carduus in his hand, a Scorpion will not bite him, or if he do, it will not hurt him. The ſeed of Wood-ſorrell drank, preſerves one from Scorpions. *Avicenna.* If you lay *Solomons* Seal under you, it keeps off Scorpions. *Iſidorus.* And *Pliny* learned from the Inhabitants of *Africa*, that he that carries Radiſh-root, or Turnſole, or a dried beaſt like a Lizard about him, Scorpions will not hurt him: So Dittany in ſmoke, or wilde Mints, or Oyl of Scorpions anoynted about their holes, will keep them from coming into the Chambers. *Rhaſis.* But theſe things will kill them laid upon them: Radiſh-root chewed, broad leav'd Baſil that growes by the water ſide, Mallowes leaves, black Hellebore, (but the white will quicken them when they are dying, if *Pliny* may be believed) Scorpions graſſe, Roſe-root, Baſil with a red flower, the ſpittle of a cholerick man faſting. *Rhaſis, Pliny, Avicenna, Democritus* in *Geopon.*

Cure of the ſtingings of Scorpions.

To cure the ſting and wound *Guilielmus de Placentia*, preſcribes this in general, namely, to give and apply inwardly and outwardly, preſently, good Theriac; then the part affected muſt be cut, and an actuall Cautery ſet to it, and the poyſon drawn forth with Cupping-glaſſes. *Galen* bids binde the part above, and to cut off the parts affected. *Gal.* 5. *de loc. aff. c.* 3. But ſince that is a very hard and cruel remedy for the patient, I thought fit to write from the Antients what remedies are cures for this wound. You ſhall firſt know the ſtinging of a Scorpion thus: The place is preſently red and inflamed, and by turns, (as in an intermitting Ague) waxing cold, and the ſick is ſometimes better, ſometimes worſe. He ſweats all over, his hairs ſtare upright, his whole body waxeth pale, his ſecrets ſwell, he breaks winde backwards, his eyes run with clammy tears and filth, his joynts grow hard, and he hath the falling of the Tuel, he fomes at mouth, he is drawn backwards by convulſions, and troubled with the Hickop, and ſometimes great vomiting, he is quickly weary of labour, he is vexed and troubled with ſenſe of horror, the outward parts of his body are cold, a pricking pain runs over all his skin, ſometimes he thinks that hail falls upon him; for *Galen* asking one that was ſtung with a Scorpion, what he felt, (3. *de loc. aff. c.* 7.) he ſaid he ſeemed all covered over and almoſt frozen with hail. *Aetius* addes, μυρμηκίασιν or warts of the fundament like Ants; after theſe fainting, then ſwounding, and finally death. *Aetius* writes, that if the lower parts be ſtung, the groins ſwell preſently, if the upper parts, then the Arm-pits. The wound being now known and viewed, and opened by ſection, and the generall cure we ſpeak of applyed, whereof Authors are plentifull. *Galen* amongſt outward remedies, reckons *Balſamum, true Wormwood, or the juice of black Mirtle-berries* anoynted. Alſo he diverſly commends the ſpittle of one that is faſting, and uſeth it as a Charm, *lib.* 10. *Simpl.* And he bids give inwardly the *Balſam with Womans milke, the Saphire ſtone in Powder, Aſſa fœtida, Scordium, Centaury the leſſe, Rue, Caſtoreum.* Out of *Caſſion* the Phiſician he commends this: Take *Aſſa fœtida, Galbanum*, each alike, make it up with the decoction of *Scordium*, and round Birthwort. The Doſe is the bigneſſe of a ſmall Nut with hot water. Out of *Andromachus* he commends this, *lib. de Theriac.* Take *Theriac* two drams, Wine four ounces, mingle and drink them.

Dioſcorides outward remedies applyed.

Cyprus bruiſed and laid on.
Amomum uſed with Baſil.
The Milk of the Fig-tree, or the juice of Sage dropt in, the Scorpion it ſelf bruiſed.
Sow-thiſtle beaten.
Succory.
Hawk-wood.
Balm.
Buſh-flower.
Mull-berries.
Larks-heels.
The fleſh of a Fiſh called *Smaris*.
The Barbel Fiſh cut in two.
A Fiſh called *Lacerta* ſalted and cut in pieces.
Houſe Mice cut aſunder.

Internal remedies from Dioſcorides.

Cardamonum.
Juice of Myrtles.
Bay-berries.
Horſe or Aſs dung.
Seed of Campions.
Mullens.
Chamæpitys.
Scorpion-graſſe.
Turnſole.
Calamint.
Trifoly.
Scordium.
Lotus ruſtica. } applyed.
Baſil with Barley-flour.
Wheat-meal with Vinegar and Wine.
Marjoram with Vinegar and Salt.
Aſſa diſſolved in Wine.
Sea-water.
Quick Brimſtone with Roſin and Turpentine.
Salt with Linſeed.
Galbanum made for a Plaiſter.

Other External remedies out of Avicenna.

Marjoram laid on with Vinegar.
Root of Coloquintida bruiſed.
Reed roots bruiſed.
The Shell of an *Indian* ſmall Nut.
Rams fleſh burnt.
Mummie four grains, with Butter & Cows milk.
Decoction of Ameos.

Bran plaiſter-wiſe.
Wine new boyled.
Bark of Frankincenſe.
The white Thiſtle.
White Thorn.
Pine kernels.
Dates.
Figs.
Mountain Poly.
Anacardi.
Aſhes of Kaly.
Wheat Bran boyled with Pigeons dung.
Salt of Urine.
Oyl of Wormwood.
Decoction of Nettles or Chamomile.
But white Naptha is the principal remedy, laid on hot. It is alſo good to ſuck out the venome with ones mouth, unleſſe it be firſt ulcerated, and then to apply ſuch things as inflame, as Pellitory of *Spain*, and Garlick.
Seed of ſowr Dock.
The herb *Phalangium.*
Daffadil ſeed and flowers drank in Wine, and alſo Bramble flowers ſo taken.
Parſnip-ſeed.
Turnſole.
Cypreſs boughs.
Rue.
Origanum.
Loveage with black leaves.
The juice of Dog-fennel }
Sow-thiſtle } drank.
The Decoction of Gentian-root.
The bark of Birthwort.
Penniroyall.
A broiled Scorpion eaten.
River-crabs raw and bruiſed, and drank with Aſſes milk.
Mans urine drank.

Internals of the ſame Author.

Juice of Worm-wood with Vinegar.
Doronicum.
Cinamon.
Myrrhe.
Wilde Saffron-leaves and fruit.
Citron-ſeed.
Mummie.
Galbanum.
Roots of Coloquintida and Gentian.
The *Indian* ſmall Nut eaten, and the Theriac of it.
The root of Squills eaten, is admirable againſt the bitings of Scorpions.
Locuſts broiled and eaten.
Juice of Onions and of Worm-wood.
Juice of the leſſer Centaury.
Alſo new boyled Wine helps much.

The Antidote of Anderam, *otherwiſe* Braz. *the King of* Sicily.

Take Caſtoreum one dram, Scordium two drams, Coſtmary one dram and half, *Aſſa fætida* three drams and half, make it up with Honey. The Doſe is one dram and half, or two drams with wine.

Another of the ſame.

Take Birthwort round and long, each one aureus, Cumin-ſeed three drams, *Aſſa fætida*, Caraway, Rue-ſeed, each two drams, Caſtoreum four drams, make it up with Honey. The Doſe is two drams with the hot decoction of Gentian root, or Birthwort, and wine; he gave alſo two drams of *Aſſa fætida*, and ſometimes three drams, Wood Laurell with Vinegar.

A Medicament of Andro *a Greek Philoſopher.*

Take Rue-ſeed, live Brimſtone, of each ſix aurei, Caſtoreum one aureus, *Aſſa fætida*, one aureus and half, Pellitory of *Spain*, liquid Storax, of each one aureus, make it up with Honey. The Doſe is half an ounce with Vinegar of the beſt wine.

Another excellent remedy.

Take Rue-ſeed one aureus, Caſtoreum half ſo much, Birthwort round and long, of each two aurei, roots of Gentian, *Aſſa fætida*, of each eight drams, (or eight aurei) make it up with Honey. The Doſe is one dram and half with pure wine. *The Electuary of* Zeno, *or* Diaruta. Take *Aſſa fætida*, bitter Coſtus and ſweet, each five aurei, round Birthwort, Agarick, each two aurei, Caſtoreum, Cinamon, Aloes, each three drams, roots of Orris, Sarcocolla, each one dram and half, long Birthwort, Gentian, each ſix drams, make it up with Honey. The Doſe is three drams. He commends alſo the great Theriac of *Andromachus*, *Eſdras*, Mithridate, and the *Theriac diateſſeron*. The deſcription of it is this. Take Gentian, Bay-berries, long Birthwort, Myrrhe, each alike, make it up with clarified Honey. The Doſe is one aureus with hot water. *Another againſt the bitings of Scorpions.* Take ſeed of wilde Rue, *Æthiopian* Cumin, ſeed of Trifolie, Minianth, each alike, with Vinegar what may ſuffice, make a Confection. The Doſe is one aureus. *Another.* Take Garlick, Nuts, of each one part, Rue leaves dried, *Aſſa fætida*, Myrrhe, of each half as much, make it up with milk. The Doſe is three drams. *Another.* Take Caſtoreum, white Pepper, Myrrhe, Opium, of each alike, make Troches. The Doſe is three oboli with four ounces of wine. *Another.* Take Opoponax, Myrrhe, Galbanum, Caſtoreum, white Pepper, each alike, make them up with liquid Storax and Honey. *Another.* Take roots of Coloquintida, of Capers, Worm-wood, long Birthwort, wilde Succory, each alike. Give children one ſcruple, men one dram, it is of wonderfull vertue in this diſeaſe. *Another.* Take green graſſewort juice with Cows milk, boyl it like to an Electuary. The Doſe is two aurei, they ſay this helps much. *Another.* Take Opium, ſeeds of white Hen-bane, make it up with Honey, and mingle it with hotter things to temper it. If any man will have more from *Avicenna*, he ſhall finde it *Can. 4. Fen. 6. Tract.* 3.

Externall remedies out of Rhaſis.

The hot Oyl of Anacardi ſtanding in the *ſhell of an Egge*, rubbed in, let the wounded part be firſt bound, then let it looſe, and anoynt it with Jeſamin Oyl. The third day open a vein, but after meat and ſleep. Alſo anoynt the place with Caſtoreum, Melanacardinum, and Garlick, laying on a plate of lead anoynted with Quick-ſilver.

Sagapenum applyed outwardly heats the wound, and a Weaſels fleſh laid over it.

Rub the place with a Topaz, and it will be cured.

The wound is bettered by rubbing a Flie upon it.

It may be cured with water from Radiſh-leaves, and Oyl of Muſtard-ſeed, and Marjoram.

Serapio writes that boyled Butter doth good.

Internals of Rhaſis.

Sweat muſt be procured any way, by external and internal means.

Take Nuts, and Garlick cleanſed, of each alike, bruiſe them.

The Doſe is one ounce, and an hour after let him drink wine. Others adde to this a like quantity of dryed Rue, Myrrhe, and Aſſa. The Doſe is three drams with pure wine.

Another. Take Nigella ſeed one part, Aſſa three parts, the Doſe is one Trochis, with one ounce of wine.

Another. Let him drink ſtrong Wine till he be almoſt drunk, and in the morning open a vein.

Another. Take roots of Coloquintida, bark of roots of Capers, Worm-wood, long Birthwort, Endive-ſeed, of each alike, make a powder. The Doſe is one dram, for children one ſcruple.

Another Theriac againſt the ſtingings of Scorpions. Take round Birthwort, roots of Gentian, Bay-berries, roots of Capers, Coloquintida, Worm-wood, Swallow-wort, white Briony, each alike, make it up with Honey.

Another. Take Myrrhe, Opoponax, Smallage, each one dram and half, white Briony, long Birthwort, Pellitory of *Spain*, each ſix drams, ſeeds of Rue, Gith, Trifoly, each three drams, Gum, Arabick, what may ſuffice, with Vinegar make Trochis. The Doſe is one dram to one dram and half. *Another.* Take Cloves of Garlick cleanſed five drams, Nuts ten drams, Aſſa one dram, incorporate them well. The Doſe is two drams. *Another.* Take Gentian, Birth-wort, Myrrhe, bitter Coſtus, Rue, Caſtoreum, wilde Mints dried, Pellitory of *Spain*, Pepper, Gith-ſeed, *Aſſa fœtida*, each alike, make them up with Honey, The Doſe is one aureus with wine. Alſo the powder of Eringo root is good with hot water, and the powder of Dodder. Alſo one aureus of Napellus with water. Ivy and Polium with water are very profitable. If a fever come upon it, open a vein. Aſſes dried dung drank with wine is very helpfull. Thus much from *Rhaſis.*

External remedies from Albucaſis.

Anoynt the place with Oyl of Ben. for many dayes, or Oyl of Jaſmin, grinde Euphorbium with it, and Caſtoreum, or elſe Caſtoreum and Garlick ground together, with old Oyl for a plaiſter.

A Frog cut and laid on is very good. Take old Oyl one pound, Wax four ounces, Euphorbium one ounce, melt it in the Oyl, and anoynt the place with it.

Internals from Albucaſis.

Let him drink hot milk from the Cow with wine or Honey. Cinquefoil-ſeed, and lees of wine, are *Theriac* in this diſeaſe, as alſo Rocket-ſeed.

Hiera Anacardina againſt the ſtings of Scorpions. Take Pellitory of *Spain*, Gith-ſeed, bitter Coſtus, black Pepper, Acorns, of each ten ounces, leaves of Rue, *Aſſa fœtida*, roots of Gentian, long Birthwort, Bay-berries, Caſtoreum, *Caſſia lignea*, Muſtard, Melanacardinum, of each five drams, make up the powders with Oyl of Nuts, and with juice of Radiſh-root make it compleat. The Doſe is one dram daily, it cauſeth ſweat. The brains of a hen in drink is very uſefull.

Haly Abbas brings nothing that is new, but only takes other mens preſcriptions. Concerning ſome Seals (amongſt the hundred ſayings of *Ptolemy*) and ſome faſhions for Charms, both he and *Kiranides* make mention, but a Chriſtian beleeves it not, nor are they worthy to be recorded by him.

Joannitius mightily commends a Plaiſter with Garlick and Butter, or to anoynt the place with Oyl of *Peter*, or pure juice of Leeks.

He preſcribes to give inwardly of the pith of the greater Spurge four ſcruples, with warm water.

Rabby Moyſes preſcribes one Sextula of Frankincenſe with Wine ſufficient. Alſo he exhibits Pigeons dung dried, and finely powdered with Butter and Honey. The Doſe is two Sextulas.

Guil. de Placentia bids men give drie or green Marjoram inwardly, to drink it with mans Urine, and to apply it outwardly.

Conſtantinus 4. Pantechn. lib. commends Hens dung, or the heart applyed outwardly, and Pimpernel inwardly, taken with Wine, and powder of Gentian, Cinamon, Centaury.

Averrhois extolls Bezar ſtone above all, the Doſe is the fourth part of an aureus.

Ariſtotles **περὶ θαυμασίων ἀκουσμάτων**, deſcribes a kinde of Locuſt that is an Antidote againſt the Scorpion, which eaten preſently cures the ſtingings of Scorpions.

Serapio affirms the root of the male Coloquintida bruiſed and laid to the wound, that it will take away the pain. He commends inwardly Wormwood, Lettice-ſeed with Garlick, Mummy two grains, with the decoction of Sampire, and leaves of Laſerwort.

Oribaſius approves of the Lilly roots, and leaves, bruiſed and applyed, as alſo a Plaiſter of Vervain, and it is thus made. Take Vervain three ounces, Roſin ſix ounces, Wax, Pitch, of each two ounces and half, Oyl half an ounce, make a Plaiſter.

Inwardly he commends the aſhes of River-crabs with Goats milk, or juice of Agrimony two ounces, with a draught of Wine, or the root of Dragons bruiſed, with wine.

Aetius commends water Calamints and Nip, which ſome think to be ſo called becauſe it is an Antidote againſt *Nepas*, that is Scorpions. He ſaith, Garden-ſnails bruiſed and laid on draws forth the venome; he commends alſo upright and green Vervain, if it be laid on for a Cataplaſm. Alſo Sheeps dung laid on with Wine. He makes alſo this Plaiſter. Take wilde Rue bruiſed with Vinegar one dram, Wax one dram, Pine Roſin three ounces, make a Plaiſter, it is admirable againſt the ſtingings of Scorpions.

Inwardly, he writes that Garden Parſnips cure beyond expectation, be it eaten green or dried, and drank with Wine. Take Caſtoreum, Lazerwort, Pepper, of each four drams, bitter Coſtus, Spikenard, Saffron, juice of Centaury the leſſe, of each two drams, clarified Honey what may ſuffice, mingle them. The Doſe is the quantity of a Hazel-nut with Wine and water; it drives the Scorpions venome from any part, as *Aetius* proved on himſelf. *Æginetta* gives quick Brimſtone bruiſed with a River-crab to drink in Wine.

Nonus bids lay on Litharge or Silver preſently upon the place ſtung, and he commends Brimſtone, if it be taken the quantity of an *Ægyptian* bean with eight grains of Pepper in Wine.

Anatolius commends this, to ſprinkle Crows dung upon the ſtinging of the Scorpion.

Silvaticus out of *Haly*, commends a Want, or the greater houſe Mouſe laid on, and out of *Serapio*, Pewter powdered and drank.

Orpheus commends Coral in drink, and the ſtone called *Scorpiodes* laid on with a Garlik-head.

Octavius, Areteus, Horatinus, Zoroaſtres, Florentinus, Apuleius, Democritus, and other Authors of the *Geoponica*, adde but a few things to the Medicaments of the Antients, beſides ſome old wives fables, and inchanted prints that are hatefull to God and man. *Pliny* tells ſuch a fiction, but no man can tell with what reaſon or credit: If, ſaith he, one that is ſtung with a Scorpion get up upon an Aſſe, with his face toward his tail, he ſhall do well, but the Aſſe will ſuffer.

Myrepſus extolls the herb Flower-de-luce, well bruiſed, and then drank with Wine or Vinegar.

Quintus Serenus writes thus, and adviſeth,

These are ſmall things, but yet their wounds are great,
And in pure bodies lurking do moſt harm,
For when our ſenſes inward do retreat,
And men are faſt aſleep, they need ſome charm,
The Spider and the cruel Scorpion
Are wont to ſting, witneſſe great Orion,
Slayn by a Scorpion, for poyſons ſmall
Have mighty force, and therefore preſently
Lay on a Scorpion bruiſed, to recall
The venome, or Sea-water to apply
Is held full good, ſuch vertue is in brine,
And 'tis approv'd to drink your fill of Wine.

Pliny amongſt outward means addeth theſe: Muſtard-ſeed bruiſed, Pimpernel, roots of Chamæleon, Sea-weeds, wilde Onions, Hares rennet, Tortoyſe-gall, aſhes of Hens dung, Colts-foot, and Mullen-leaves: It is exceeding good to purge the body within, very well, with the ſeed of wilde Cucumber, and *Elaterium*, and then to drink the juice of Lettice, and to drink the dried leaves and ſtalks in Vinegar.

Ammi drank with Linſeed.
Wilde Cumin.
The third kinde of Canila.
Fennel-ſeed.
Root of Cyprus.
Great Saffron.
Creſſes.
Yellow Camomil.
The tender ſtalks of green Figs.
Bay-berries.

In Wine.

The ſeed of Hyacinth with Southernwood.
Seeds of Trifoly, and Rocket.
Four oboli of Agarick.
The juice of Jelly-flowrs and Plantain.
The Aſhes of River Frogs.
Chamaipythe.
The herb *Nodia*.
Seed of white Thorn.
Flame-coloured Campions.

Arnoldus Villanovanus hath theſe: Herb *Trinity* cures the wounds of Scorpions, and kills the Scorpions themſelves. Let the ſick drink one ſpoonfull of the juice of the root of Dwarf-elder with Wine, and it is an infallible remedy. Take of the roots of Cappars, Coloquintida, Worm-wood, long Ariſtolochia, Gentian, Bay-berries, Yellow *Ben*. White Briony, of each alike, make it up with Honey. The Doſe is the quantity of a Nut with Wine. *Another*. Take ſeeds of wilde Rue, Cumin, Garlick, Hazel-nuts, of each one dram, leaves of dryed Rue one grain and half, Myrrhe, Frankincenſe, each one grain, white Pepper, Opium, each three drams, Opoponax, Galbanum, of each half a dram, make it up with Honey. The Doſe is the magnitude of a Bean with Wine. *John Arden* an *Engliſh* man, (he was in his time the moſt skilfull Chirurgeon in *England*) after his long practiſe in *England* and *France*, he affirms he could finde nothing more ſafe againſt the ſting of the Scorpion, then to draw forth two or three drops of bloud hard by the wound, and preſently to anoint the wound with the ſame bloud. ***Celſus*** ſaith that thoſe Phyſicians did ſome ſuch thing, who were wont to keep the bloud they drew forth of the arms of thoſe that were ſtung. ***And this ſhall ſuffice for remedies againſt the ſtingings of Scorpions.***

If any man chance to be bit by ***Rhaſis*** Scorpion, (which we called Bunch't-back) the firſt day a ſmal pain is perceived, but the ſecond, ſtraightneſs, heavineſs, and ſadneſs is ſeized on the ſick; the colour of the body is divers almoſt every hour, and changing from green, yellow, white, and red; whence it may appear, that all the humours are infected, the place burns by the confluence of pain, and humour, ſwounding followes, and trembling of the heart, an acute Feaver, and ſwelling of the tongue, by reaſon of humours melted and corrupting in the brain, and falling down on the roots and muſcles of the tongue: ſometimes alſo the urine is bloudy, by reaſon of the acrimony of the venomious matter, and green choler is caſt forth by vomit, alſo the guts are tormented with a ſharp and vehement pain. Almoſt all ſymptomes fall upon the nerves that can happen to them. ***Rhaſis bids cure all theſe things this way***: Firſt, inciſion being made on the place, and cupping glaſſes applyed, burn it with a ſtrong actual cautery, then anoint the wound with the juice of wilde Endive, or with oyl of Roſes, Barley water, juice of Apples, and with all cold things. If the belly be not ſoluble, make it ſo with a gentle Clyſter, and the juice of Blites, Nitre, and oyl of Violets, and let the patient take this Theriack. Take Opopanax, Myrrhe, Galbanum, Caſtoreum, white Pepper, of each alike, make it up with liquid Storax and Honey. The Doſe is the quantity of a Jujube: the part muſt be fumed with a piece of a milſtone heat, and ſprinkled with Vinegar. Alſo foment it with water of wilde Lettice. The uſual Theriack. Take the rind of the root of Cappatis, root of Coloquintida, Wormwood, round Birthwort, Hepatica, wilde Dandelion, dried, each alike; make a Powder: the Doſe is two drams; alſo ſowre Apples muſt be eaten. ***For pain in the belly***: Let him drink oyl of Roſes, with Barley water, Citrals, Gourds, alſo give ſowre Milk. ***For trembling of the heart***: Let him take juice of Endive, or ſyrup of Vinegar, or ſyrup of Apples, with troches of Camphire, or ſowre Milk the ſame way. ***If the wound be afflicted with great pain***: Lay on a Cataplaſm of Bole and Vinegar: for a defenſative and for a ſharp remedy, lay on Euphorbium, or Caſtoreum, Poly root drank with water, and a Rams fleſh burnt, is profitable. ***Theriack called Haſcarina, firſt invented in the Province of Haſcarum.*** Take leaves of red Roſes iv. drams, Spodium ij. drams, Citron Sanders ij. drams and half, Saffron j. dram, Licorice ij. drams, ſeeds of Citrals, Melons, Cucumers, Gourds, Gum tragant, Spike, each j. dram, Lignum Aloes, Cardamon, Amylum, Camphir, each j. dram, moſt white Sugar, Manna, each iij. drams, with the mucilage of Fleawort and Roſe-water, what may ſuffice, make it up. The people of ***Haſcarum*** was wont to draw bloud from the ſick (ſaith holy ***Abbas***) almoſt till they fainted: then they gave ſweet milk to drink, and water diſtilled from ſowre Apples. Alſo they gave ſowre Milk in great quantity. Thus the ***Arabians*** ſpeak of this peſtilent kinde of Scorpions that ***Nicander*** and all the Greeks were ignorant of, and that was too common in the Countrey of ***Haſcarum***. ***Now we will ſpeak of Spiders.***

CHAP. XI.

Of the Name of Spiders, and their Differences.

The Name. THE Latine name ***Araneus***, or ***Aranea***, is in Greek, ἀράχνη, from the ſlender feet it hath, or from its high gate, fom the cobwebs it ſpins: Others call him μυοχαύλην, or ***Muſcatricem***; ***Kiramides***, θηραφορ; ***Heſychius***, σιφὼν; the Hebrews, ***Acabitha***, ***Acbar***, ***Acabiſh***, ***Semamith***; in Arabick, ***Sibth***, and ***Phibit***, ***Aldebabi***, and ***Aldebani***, as it is called by ***Bellunenſis***: the Germans call it ***Spinn***, and ***Banker***; the Engliſh, ***Attercop***, ***Spider***, ***Spinner***; the Brabants, ***Spinl***, and French, ***Araigne***; Italian, ***Ragno***, ***Ragna***; the Spaniſh, ***Arana***, or ***Taranna***; the Sclavonians, ***Spawauck***; the Polonians, ***Paiack***; the Barbarians, ***Koatan***, ***Kerſenati***; ***Iſidore***, *l.*12. *c.*12. ſaith it is called ***Aranea***, becauſe it is bred and nouriſhed by the air: a twofold error: for if they live by the air, wherefore are they ſo careful to weave nets, and catch Flies? and if they were bred of the air, wherefore do they copulate? wherefore do they thruſt forth little worms and eggs? but we will pardon the elegant Etymologer, becauſe who makes a cuſtome to play thus with words. There are many of theſe kindes, and all of them have three joynts in their legs:

A little head and body ſmall,
With ſlender feet, and very tall,
Belly great, and from thence come all
The webs it ſpins.

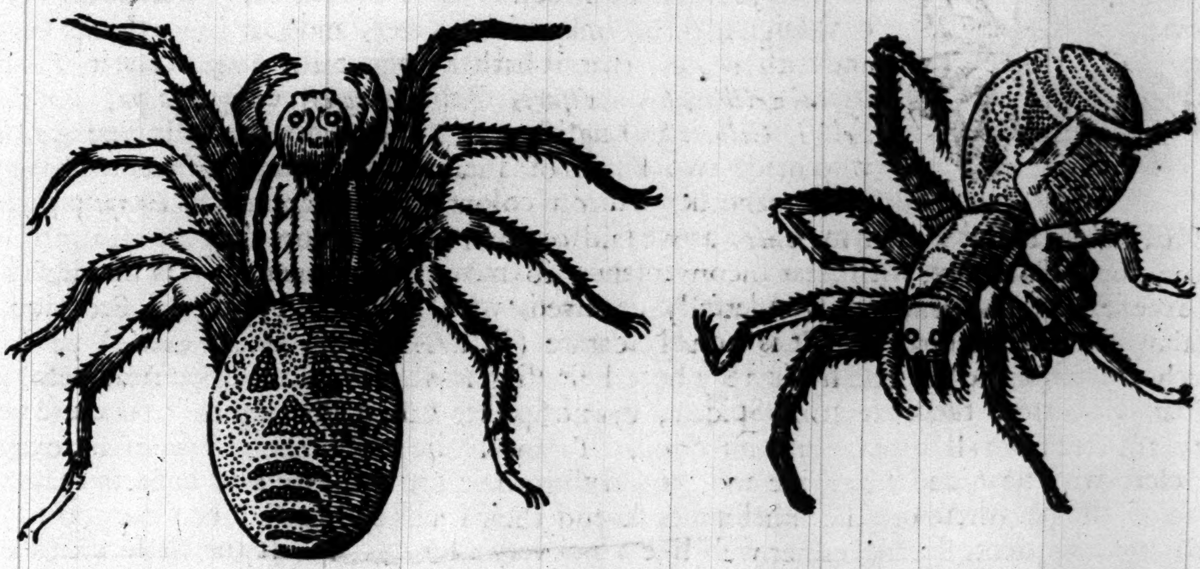
The differences. Now Spiders are venomous, or harmleſs; of harmleſs ſome are tame or houſe-ſpiders, thoſe are the biggeſt of all; others live in the open air, and from their greedineſs are called hunters or wolves: the ſmaller kindes of theſe do not weave; but the greater ſort begins his web very ſharp and ſmall by the hedges, or upon the ground, having a little hole to creep into, and laying the beginnings of his webs within, obſerving whileſt ſomething ſhakes the web, then he runs to catch it. The venomous Spiders called Phalangia, are ſo venomous, that the place they wound will preſently ſwell. Theſe are of two kindes; for ſome are leſs, ſome greater; the leſs are various, violent, ſharp, ſalacious, and going as it were rebounding, which as we read, are called ψύλλαι, or *Fleas*, or *Apes*; others are called *Oribates*, which are found eſpecially on trees in mountains; they are called *Hypodromi*, becauſe they live under leaves. *Geſnerus.* It is a hairy creature, and breeds in the greater trees. The belly of it is moderately with inciſions, that the cutting may ſeem to be marked by thred. *Ælianus.*

CHAP. XII.

Of Spiders that are hurtful, or Phalangia.

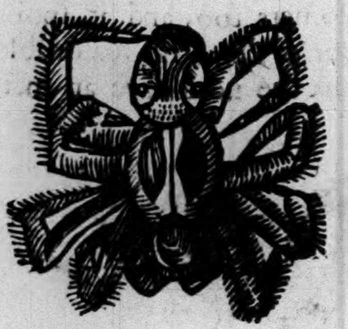
The difference of Phalangia and deſcription.

IN *Italy* they know not the *Phalangium*, (ſaid *Pliny*) It is of ſundry kindes; one is great like to a Piſmire, but much greater, with a red head; the other part of his body is black, with white ſpots running between. The Piſmire kinde of *Aetius* hath a ſmoky body, an aſh-coloured neck, and the back as it were adorned with ſtars. *Nicander* his ἀγρώστην; *Aetius* cals λύκον; the Latines call it *Venator*; it makes a weak wound and without pain, but yet a little venomous: it is found amongſt the Spiders webs, where (like hunters) it catcheth Flies, Bees, Horſe-flies, Oxe-flies, and Waſps alſo, and (unleſs you will not credit *Lonicerus*,) Hornets too, and it ſpoils all that the nets can take and hold: that this is the ſame with *Ariſtotles Pulex* no reaſonable man will deny. It hath a broad round volubilous body, the parts about the neck have an inci-

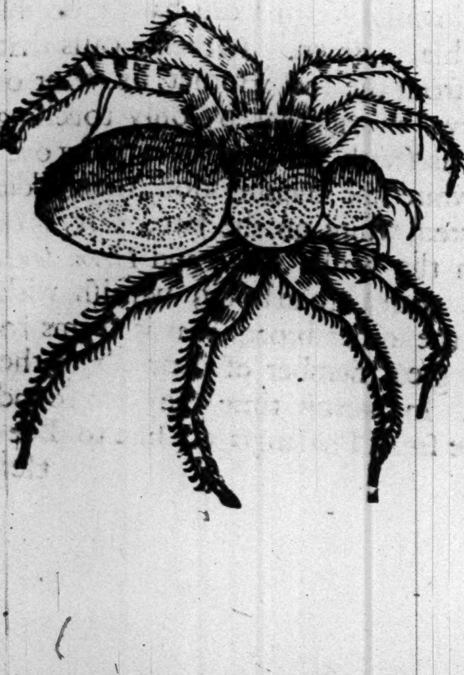


ſion; and there are bred three eminences about the mouth. There is another Phalangium which *Nicander* cals ῥώξ; *Aetius* ῥάγιον; *Ælian*, ῥάξ; (from the likeneſs of it to the ſtone of a black Grape) it is round, and black, and ſhining, and globe-like, the feet are extreme ſhort, as if they were imperfect, but it moves ſwiftly: it hath a mouth, but with teeth bred under the belly, and it moves with all the feet at once. Whether *Ariſtotles* Spider will bite, let the Reader judge. Truly it is not much unlike it, as *Grevinus* rightly conjectured. In this deſcription, *Aetius*, *Ælianus*, *Plinius*, do almoſt agree with *Nicander*. *Ælian* put long feet amiſs for ſmall feet, and affirmed it to be only an African creature. Ἀστέριον, were the ſame, unleſs it were diſtinguiſhed by certain white ſtars and lines, that are fat and tranſparent. Only *Pliny* after *Nicander* made mention of this, as if it had been unknown to *Ariſtotle*, *Galen*, *Aetius*, *Ælian*, *Avicenna*. The blewiſh coloured Spider is worſe than all theſe, called by *Nicander* κύανεος; going on both ſides with very long and tall feet; the Scholiaſt adds δασὺ, that is downy and high, not high downy, as *Lonicerus* tranſlates it. *Pliny* ſaith hairy with black down, though I can hardly be induced to believe that the blewiſh Phalangium is hairy with black down. *Nicander* calls that Phalanginm δίζωνει, which others call σφηκεῖον, differing only from the red Hornet by want of wings, and is wonderful red. It is held far worſe than the blew, though that by only touching doth communicate her venome, and break a cryſtal looking-glaſs (ſaith *Scaliger*) by running over it. There are two kindes of *Tetragnathi*, the worſt is with a white line running along the middle of the head, and another acroſs that. The milder or aſh-coloured, white on the latter part, is of the ſame colour, and that makes very broad nets for flies on the walls. *Plin.* and *Hermolaus.* But as *Aetius* ſaith, *Tetragnathus* is one kinde of Phalangium, with a broad body, whitiſh, with rough feet, it hath two little riſings in the head, one upright, the other broad, that it ſeems to have two mouths, and four cheeks. *Aelian* ſaith there is a great number of them about the River *Arrhata* in *India*, ſometimes deadly to the Inhabitants. In harveſt time they are found amongſt pulſe, (when they are gathered with the hands) ſome ſmall Phalangia are like to Beetles,

tles, of a flame-red colour; ſuch are thoſe the Engliſh call *Twyngs*, by eating whereof cattel are oft-times killed: Phalangium breeds amongſt tares, and in the Peach-tree, they call it κρανοκολάπτην, by *Nicander* and *Aetius*; κεφαλοκρούστην, by *Dioſcorides*, becauſe it boldly ſtrikes the heads of thoſe that paſs by it, when it deſcends by a thred, or fals down without it. It is a little creature in the ſhape of a Butterfly Phalæna: it goes horridly with the head alwaies nodding, and a heavy belly, it is of a long body and a greeniſh colour; it hath its ſting in the top of its neck, if it light upon any man, it will eſpecially wounds the parts about the head, as *Aetius* witneſſeth; it is nouriſhed in the Peach-tree leaves, and hath wings like to ſome Butterflies: whence the Scholiaſt would inſinuate that this kinde of Phalangium is winged, which no man hath obſerved yet. *Ponzettus* and *Ardoynus*, deceived by Rabbi *Moſes*, ſuppoſe it to be *Cranocaleptes*, and the Tarantula; *Gilbert* an Engliſh man followed this error, in the Chapter of the Tarantula. *Sclerocephalus*, or hard-head, little differs in faſhion from the former; it hath a head as hard as a ſtone, and all the lineaments of its body like thoſe little creatures that fly about candles. *Scoletion* is a long Spider, and varied about the head eſpecially with ſome ſpots. There is alſo a kinde of Phalangium, Pliny cals it the downy Spider, with a very great head; which being cut, they ſay that two worms are found, which bound to women before conception in a crows skin, will keep them from conceiving: and this vertue of them will continue for a year, as *Cecilius* hath left it written in his Commentaries. We call the laſt *Appulus*, and commonly *Tarantula*, famous by that name, from the Countrey of *Tarentum*, where they are moſt frequent, it borrows its name, we give you here the picture of it, that was beſtowed upon *Pennius* by an Italian Merchant of happy memory; where if you paint the white places with a light brown, and the black with a dark brown, you have the true ſpotted Tarantula; I know no man yet that deſcribed it as it ſhould be. *Ferdinandus Ponzettus* doth faign it to be only with ſix feet, and *Ardoynus* thinks the ſame, and ſaith more, that it hath a long tail. *Rhaſis* cals it *Tarantula*, *Sypta*, *Albucaſis*, *Alſari*, Rabbi *Moſes*, *Aggonſarpa*, *Avicenna*, *Sebigi*, *Gilbert* an Engliſh man, *Fararta*; for he followed *Ardoynus*, who made two kindes of Tarantula's, one browniſh, as we have pictured it: another Saffron coloured and clear, ſuch as *Egypt* produceth.



Phalangium is not known in *Italy*, as we ſaid out of *Pliny*, but now they are all almoſt found in the ſouth Countrey, with great inconvenience to mowers, and hunters, as is manifeſt by daily experience. *Ponſettus* was wonderfully deceived, who in *l. 3. c. 15.* of the Scorpion, cals Phalangium a venomous Fly. It is a cruel creature (ſaith *Alexander ab Alexandro*) peſtilent to touch. In ſummer when the ſun is very hot, their ſting is venomous, at other times not. In the coldeſt Countreys there are many Spiders, but no Spiders called Phalangia, or if there be any, they are free from all venome and infectiou. Tarantulæ lie hid in the chinks of furrowes that are cleft with heat, and they ſtrike and wound with their teeth mowers or hunters that are not aware of them; wherefore the Inhabitants defend their hands and feet, when they go to mow, or to hawk or hunt, ſhe makes her web like a net very ſilently, and all the little creatures ſhe can catch, ſhe provides for her ſupper. All the Phalangia bring forth in their net, (that they make thick) and they do as it were ſit upon eggs in a great number, and when the young grows up it embraceth the dam and kils her, and oft times caſts out the ſire, if it can lay hold of him, for he helps the dam to ſit, and they bring forth 300. *Bellonius l. ſing. obſ. c.* 68. obſerved little Phalangia in ſandy grounds creeping up the Horſes legs, (may be that is it the Germans call *Stein ſpinnen*) by whoſe continual bitings they ſuddenly fainted, and ſtaggering continually they conſumed. *Baſilius* ſaith that there are ten kindes of Phalangia, but he deſcribes them not. *Avicenna* (I know not out of what Book of *Galen*) divides the Spiders Phalangia into the Ægyptian, the black, the bright red, that men call *Raches*, the white, Citron coloured, Grape coloured, Piſmire-like, like Cantharis, Waſpy, and mountainous. But both he, and all the Arabians deſcribe them ſo fooliſhly (to ſay no more) that there can be nothing more confuſed in ſo great a matter. Laſtly, to add all the kindes of Phalangia which we have ſeen or read of. I ſhall annex the *Cretian Phalangium*, you have here the picture of it exactly printed. It is of colour brown and aſh-coloured, a ſmooth body, and hairy legs: near the mouth it is fenced as it were with two hooked prickles, with which it bites and wounds. It lives as the Spiders do by Flies & Butterflies, & makes nets to catch them: ſhe laies eggs, and foſters them under her breaſt, whence the young ones are thruſt forth, which ſtick under the dams belly, till growing elder they kill her. They dig a hole fit for the bigneſs of their body; for as they are not every where of one colour, ſo they are not of the ſame magnitude. They dwell in a cave two foot deep, and on the outſide they cover it with ſtraw that the duſt get not in. All theſe venomous Spiders are naturally ſo, for they ſuck not their poyſon from herbs, (as ſome think from their



their likeneſs) for they do not ſo much as taſte of them, not yet from the malignity of their food. For they feed principally on Flies, Gnats, Bees, and they ſuck no ill humours from them.

Signs of the bitings of Phalangia.

Grievous ſymptomes follow the bitings of Piſmire Phalangium, for there followes a mighty ſwelling on the part bitten, the knees grow weak, the heart trembles, the forces fail, and oftimes death ſucceeds. *Nicander* ſaith that the ſick ſleep ſo deeply, that they are alwaies aſleep at laſt, and are in the ſame condition as thoſe are that are ſtung by the Viper: Hiſtories relate that *Cleopatra* ſet one to her breaſt, that ſhe might eſcape *Auguſtus* without pain, nor is the wound deadly unleſs it be wholly neglected. *Rhagium* makes a very ſmall wound, and that cannot be ſeen, after it hath bitten: the lower parts of the eyes, as alſo of the cheeks wax red, then horror and fainting ſeize on the loyns, and weakneſs on the knees, the whole body is very cold & hath no heat, and the nerves ſuffer convulſion from the malignity of the venome. The parts ſerving for generation are ſo debilitated, that they can harly retain their ſeed, they make water like to Spiders webs, and they feel pain as thoſe do are ſtung with a Scorpion. From the ſting of *Aſterion*, men ſeem wholly without ſtrength, their knees fail them, ſhivering and ſleep invade the patient. The blew Spider is worſt of all, cauſing darkneſs and vomitings like Spiders webs, then fainting, weakneſs of the knees, Coma, and death. *Dyſderi*, or Waſp-like Phalangium, cauſeth the ſame ſymptomes with the blew, but milder, and with a ſlow venome brings on putrefaction. Where the *Tetragraphii* bite, the place is whitiſh, and there is a vehement and continual pain in it, the part it ſelf growes ſmall as far as the joynts. Laſtly, the whole body findes no profit by its nouriſhment; and after health recovered, men are troubled with immoderate watchings. *Aetius.* *Nicander* denies directly that the aſh-coloured *Tetragnathon* can poyſon one by biting him. The *Cantharis* like, or pulſe Phalangium raiſeth wheals, which the Greeks call φλυκταίνας, the minde is troubled, the eyes are wreſted aſide, the tongue ſtammers and fails, ſpeaking things improperly, the heart is as it were moved with fury, and flies up and down. The *Vetch kinde* produceth the ſame miſchiefs, and cauſe Horſes that devour them, and cattel to be very thirſty, and to burſt in the middle. *Cranocalaptes*, ſaith *Pliny*, if it bite any one, death followes ſhortly after. But *Aetius* and *Nicander* affirm the contrary, and that the wound thereof is cured without any trouble almoſt at all. Head-ache, cold, vertigo, reſtleſneſs, toſſings, and pricking pains of the belly follow, but they are all aſſwaged (ſaith *Nicander*) by fit remedies. *Sclerocephalus*, is like to this in form, and forces and effects the ſame things, as alſo the *Scolecium*. We ſaid that the *downy Phalangium* drives away barrenneſs, if it be carried about one, but whether it be violently venomous, I know no man that hath determined it. The ſpotted or Phalangium of *Apulia*, doth produce divers and contrary ſymptomes according to the complexion of him that is wounded, and his preſent diſpoſition. For ſome laugh, ſome cry, ſome ſpeak faulteringly, others are wholly ſilent, this man ſleeps, the other runs up and down alwaies waking; this man rejoyceth, is merry and moves up and down, that is ſad, ſlothful, dull; ſome think themſelves to be Kings, and command all; ſome are ſad, and think they are in captivity, and fettered: laſtly, as men drunk are not of one quality: ſo are theſe that are mad, ſome are fearful, ſilent, trembling; ſome are bold, clamorous, conſtant. This is common to them all, to delight in muſical inſtruments, and to apply their mindes and bodies to dancing and leaping at the ſound of them. Laſtly, when by continuance of the diſeaſe and the vehemency of it, they ſeem next unto death, yet when they hear muſick they recollect their ſpirits, and they dance with greater chearfulneſs every day. Theſe dancings being continued night and day, at length the ſpirits being agitated, and the venome driven forth by inſenſible tranſpiration they grow well. But if the Muſicians upon any cauſe do but leave off playing, before the fuel of this miſchief be ſpent, the ſick fall into the ſame diſeaſe that they were firſt oppreſſed with. We muſt admire this moſt, above other things, that all thoſe that are ſtung with the the *Tarantula*, dance ſo well, as if they were taught to dance, and ſing as well as if they were muſically bred. (In *Italy* it was firſt invented, and cuſtome hath taken it up to call ſuch as are bitten, *Tarantati*, or *Tarantulati*.) *Cardanus* againſt faith and experience, denieth that muſick can reſtore any that are bitten; yet we heard the ſame thing fell out at *Baſil*, from *Felix*, *Platerus*, *Theodore*, *Zuingerus*, our moſt famous, and dear Maſters, and we read the ſame in *Matthiolus*, *Bellunenſis*, *Ponzettus*, and *Paracelſus*. And if the ſweet muſick of pipes could help mad horſes, and pains of the hips, (as *Aſclepiades* writes) why may it not help thoſe are ſtung with a Tarantula? Some there are that aſſign to this diſeaſe, ſome I know not what ſmall deity, as ſuperintendent over it: they call him St. *Vitus* that had formerly great skill in ſinging, he being called upon and pacified with muſick, as he is the patron of muſick cures them, ſo that men ſuperſtitiouſly impute that to him, which they ſhould do to muſick and dancing. *Bellonius* reports that the Cretian Phalangium induceth the like miſchiefs, and the pain and wound of it is alſo cured by muſick. It is no wonder the Ancients deſcribed not theſe two kindes of Phalangia, becauſe they knew them not, nor did the ſhew the waies how to cure their ſtingings. *Dioſcorides* writes thus of the common bitings of the Phalangia. The ſymptomes that follow their bitings are commonly theſe: The place ſtung looketh red, but neither ſwels, nor waxeth hot, but it is ſomething moiſt; when it growes cold, the whole body quakes, the hams and groins are ſtretched out, there is a collection made in the loins, they are often urged to make water, and they ſweat with very great pain, and labour to go to the ſtool, and cold ſweat runs down every where, and tears trickle down from their darkned eyes. *Aetius* adds further: They are kept waking, they have frequent erection of the yard, their head pricks, ſometimes their eyes and their legs grow hollow. Their belly is unequally ſtretched out with winds, and their whole body ſwels, chiefly their face, their gums, their tongues, and tonſils, they bring forth their words fooliſhly and gaping, ſometimes they are troubled with difficulty to make water, they are pained in their ſecrets, they make urine like water and full of cobwebs. The part affected is pricked and ſwels, (which *Dioſcorides* denied before) and it is moderately red. So ſaith *Aetius*, from whom *Paulus*, *Actuarius*, *Ardoynus*, differ but little. *Gal. 3. de loc. affec. c. 7.* hath it thus. The bitings ſaith he of the Phalangia are ſcarce to be ſeen: it firſt affects only the ſkin, and from the ſuperficies of it, it is carried by the continuity of the fibres to the brain, and into the whole body: for the ſkin comes from the membranes, and they from the nerves and the brain; this is clear, becauſe by preſently binding of it on the farther parts, they are preſerved from the venome that is near to them. In *Zacinthus* they that are bit by the Phalangia are otherwiſe affected, and more grievouſly, in other parts: their body is aſtoniſhed, weakned, trembles, and is very cold: vomiting and convulſion followes, and inflation of the yard: their ears are afflicted with moſt cruel pains, and the ſoles of their feet. They uſe bathing for a remedy; if the party recovered go willingly into bathes afterwards, or were by chance or by craft brought into them, by the hot water the contagion paſſeth over the whole body, and he perceives the ſame miſchief in the whole body. *Dioſcorides* writes the ſame things in the chapter concerning Trifoly that ſmels like Aſphaltum. The decoction of the whole plant eaſeth all the pain by fomentation, where Serpents have ſtung men, what man ſoever that hath ulcers and waſheth himſelf in the ſame bath, is ſo affected, as he that was bit by a Serpent; *Galen* ſaith he thinks it is done by a miracle, *Lib. de Theriaca ad Piſonem*, if *Galen* did write that Book. But *Ælian* ſpeaks more miraculouſly, where he affirms that may happen to thoſe that are ſound, making no mention of ulcers. And thus much for ſymptomes. *Now for the cure.*

This is the ſenſe of *Galen*, but not the ſame words.

The cure.

The cure is particular or general. Phyſitians ſpeak of but a few particular cures, becauſe the general is commonly effectual.

But *Pliny* ſets down a remedy againſt the biting of the Phalangium called *Formicarium*, that hath a red head: to ſhew another of the ſame kinde to him that is wounded, and they are kept dead for this purpoſe. Alſo a young Weaſil is very good, whoſe belly is ſtuft with Coriander, kept long and drank in Wine. A Waſp, that is called *Ichneumon*, bruiſed and applied, drives back the venome of the *Phalangium Veſparium*, (ſaith *Bellonius*) not otherwiſe than as one living kils another, that is alive. For *Ichneumon* (ſaith *Ariſtotle*, is a ſmall creature that is an enemy to the Phalangia; it often goes into their holes, and goes forth again, loſing its labour. For it is a matter of great labour for ſo ſmall a creature to draw forth its enemy greater than it ſelf by force; but if he light upon his enemy preying abroad, he drags the Phalangium as eaſily with him as a Piſmire doth a corn; and the more ſtifly he drawes himſelf back, the Waſp draws him on the more fiercely, and ſparing no pains, doth beſtir himſelf with all his might; ſometimes when he is tired with too much labour, he flies away and breathes himſelf, and having recovered breath, he goes to ſeek for the Phalangium again, and ſtriking him often with his ſting, at laſt he kils him; when he hath killed him, he carries him into his own habitation on high, and there it renewes its kinde by ſitting upon them. Thoſe whom the Tarantula ſtrikes, are helped by violent and conſtant motion, but *Celſus* on the other ſide commands thoſe that are ſtricken by the other kindes of Phalangia, to be quiet and to move but little. But muſick and ſinging are the true Antidote of it. *Chriſtophorus de honeſtis*, bids preſently exhibit *Theriaca Andromachi*. Alſo he gives Butter and Honey, and Saffron root with Wine. The Bezar of it are the green grains of the Maſtick tree. *Ponzettus lib. de venen.* perſwades to give ten grains of Maſtick with Milk, or juice of the leaves of Mulberies, j. ounce and half. In the augmentation he cureth it with Agarick of white Briony, after ſweating much they muſt be refreſhed with cold and moiſt things, as with Poppy-water. *Merula* ſaith they are cured with ſinging, dancing, leaping, and colours; I will not contend for the firſt three, but I cannot ſee how they can be cured with colours, eſpecially when as they that are ſtung are blinde, or ſee very little. He ſaith alſo that inhabitants and citizens are hurt by them, but ſtrangers are ſafe and out of danger, which no man of a ſmal belief, or not very great faith can believe. *Dioſcorides* appoints a general cure: Firſt, ſcarifying muſt be repeated, and cupping glaſſes ſet on with a great fire. *Abſyrtus* counſels to fume the part ſtricken, with the ſhels of Hens eggs firſt ſteeped in Vinegar, and burned with Harts-horn, or Galbanum.

Then you muſt uſe ſcarification, and draw fouth the bloud by ſucking or cupping glaſſes. Or, which is ſafeſt, burn the place affected with an actual Cautery, unleſs it were full of nerves; for then it is beſt to ſet a Cautery on the neighbouring parts. Then ſweat muſt be provoked with clothes laid on, or rather by gentle and long walking. Laſtly, to perfect the cure, you muſt prove by external and internal Medicaments, ſuch as we here ſet down, and the moſt commendable and moſt noted we mark with an Aſteriſk. Internal remedies out of *Dioſcorides*: Take ſeeds of Southernwood, Anniſeed, Cummin ſeed, Dill, round Birthwort, wilde Cicers, Cedar fruit, Plantain, Trifoly, ſeed of Minianthes, each alike, bruiſe them ſeverally; the Doſe of them ſeverally is ij. drams in Wine, but if you joyn many of them together, drink iij. drams or iv. with Wine: alſo j. dram of the fruit of Tamariſk is effectual, with Wine. Chamepithy, and the decoction of green Cyprus nuts with Wine. * Some prove of the juice of River-crabs with Aſſes milk and Smallage-ſeed, and they promiſe it ſhall preſently take away all pains. Alſo a Ly of the Fig-tree is drank againſt the bitings of the *Phalangia*: alſo it is good to drink the fruit of the Turpentine tree, Bay-berries, Balm-leaves, the ſeeds of all the wilde Carrots, and of Coriander, the juice of Myrtle-berries, Ivy, Mulberry, Cabbage and Cliver-leaves, with Wine or Vinegar, one dram of the leaves of Bean Trifoly drank with Wine.

Decoction of Sparagus root, juice of Houſleek, juice of Clivers with Wine. He alſo commends a Snail bruiſed raw, and drank with Aſſes milk. * Alſo Balm-leaves with Nitre, and Mallowes boyled with the roots, drank often. The leaves, flowers, and ſeeds of the herb *Phalangium*, and the ſeed of Gith, the Decoction of Aſparagus, Mock Chervil, and the juice of Mullberries.

Out of Galen.

Take Birthworth, Opium, of each four aurei, roots of Pellitory of *Spain* three aurei, make Trochis as big as a Bean; the Doſe is two Trochis with three ounces of pure Wine. The aſhes of a Rams hoof drank with Wine and Honey. The remedies of *Diophantis, againſt the bitings of the Phalangia.* Take Birthwort four drams, Pellitory as much, Pepper two drams, Opium one dram, make little Cakes as big as Beans, take two, with two Cyathi of the beſt Wine.

Another that is better. Take ſeeds of wilde Rue, Rocket-ſeed, Pellitory, Storax, quick Brimſtone, each ſix drams, Caſtoreum two drams, mingle them, make Trochis as before with Snails bloud; the Doſe is three oboli in Wine. *Another.* Take Myrrhe, Caſtoreum, Storax, each one dram, Opium two drams, Galbanum three drams, Anniſeed, and Smallage of each one acetabulum, Pepper thirty grains, make it up with Wine. *Another.* Take Myrrhe five drams, Spike of *Syria* ſix drams, flowers of the round Cane two drams and half, Caſſia four drams, Cinamon three drams, white Pepper one dram and half, Frankincenſe one dram and one obolus, Coſtus one dram, make it up with *Athenian* Honey; the Doſe is the quantity of a Hazel-nut with water, or with Honey and water. *Apollodorus* * remedies. Take wilde Cumin one acetabulum, bloud of a Sea-tortoiſe four drams, rennet of a Hinde or Hare three drams, Kids bloud four drams, make them up with the beſt Wine, and lay them up; the Doſe is the quantity of an Olive, in half a Cyathus of Wine. *Another.* Take ſeed of bituminous Trifoly, round Birthwort, ſeeds of wilde Rue, Tare-ſeed dried in the Sun, each ſix drams, drink them in Wine, and make Cakes, four drams weight; the Doſe is one Cake, *Gal.* 2. *de Antid.* where he hath collected many remedies from Authors.

Out of Aetius and Ægineta.

Take quick Brimſtone, Galbanum, each four drams, bitter Almonds blancht, juice of Laſerwort two drams, of Aſſa four drams, mingle them with Wine and Honey, and drink them, alſo lay them on thus. *Another.* Take Ameos two drams, Flower-de-luce one dram, or of St *Johns* wort, or bituminous Trifoly, drink them in Wine. Or take Anniſeed, wilde Carriot-ſeed, Cumin-ſeed, Gith, Pepper, Agarick, each one dram, drink it. Or take leaves of Cyprus-tree, or the Nuts bruiſed in Wine and Oyl one Hemina, and drink it.

For this end he preſcribes Bay-berries, the herb Scorpions graſſe, Serpolet, Laſerwort, Calaminth, Chamæpitha, by themſelves, or with Rue and Pepper. *Another.* A bunch of Mints boyled in freſh Poſca, let the ſick drink two Cyathi: Alſo Germander, Chamæpithy, white Thorn, and Peniroyall in decoction are good. Alſo a Ly, and juice of Ivy with Vinegar. *Aſclepiades uſed theſe.* Take ſeed of Sphondylium dried, Calamint, each alike, bruiſe them, and drink often in a day two Cyathi of Wine with them. *Another.* Take juice of Laſerwort, Daucus-ſeed, dried Mints, Spikenard, each alike, make it up with Vinegar; the Doſe is one dram: take it with Poſca and Wine, four Cyathi, and preſently go into a hot Bath; when Laſerwort is wanting, take the double portion of pure *Aſſa*.

One that is better. * Take of Cenchryus, ſeeds of wilde Rue, Pepper, Myrrhe, wilde Vine, of each one dram and half, Cyprus root one dram, make a Confection; the Doſe is one dram, with four Cyathi of Wine, and one Cyathus of Honey. Alſo the eating of Garlick is good, as alſo a Bath and Wine, and ſuch things as help againſt Vipers ſtingings. *Paulus* repeats the ſame remedies, and *Theban* Cumin, or ſeed of *Agnus Caſtus* or leaves of the white Poplar-tree drank in Beer are very effectual.

Out of Nicander. Roſin of the Turpentine tree, Pine or Pitch-tree, drank or ſwallowed, is exceeding good, which *Geſner* and *Bellonius* ſay they learned by experience, to be true.

Out of Avicenna. The Myrtle-tree and the fruit of it, *Doronicum*, Maſtick, *Aſſa fœtida*, Dodder and its root, the *Indian* Hazel-nut (which is *Theriac* for this diſeaſe) white Bdellium, all of theſe drank with Wine. Take roots of Birthwort, Flower-de-luce, Spike Celtica, Pellitory of *Spain*, Daucus, black Hellebore, Cumin, root of Daffodil, leaves of Winter Wheat, leaves of Dogs-tooth, Pomegranate tops, Hares Rennet, Cinamon, juice of River-crabs, Storax, Opium, *Carpobalſamum*, of each one ounce, beat all to powder, and make Troches, the weight of one aureus, which is the Doſe of them. Alſo give in Wine the decoction of the leaves of bituminous Trifoly, of the Cyprus Nut, Smallage-ſeed. Moreover give to drink, Pine kernels, *Æthiopian* Cumin, leaves and rinde of the Plane-tree, ſeeds of Siler Montanum, black wilde Chiches, ſeed of Nigella, Southern-wood, Dill, Birthwort, fruit of the Tamarisk, for all theſe are very good. Alſo the juice of wilde Lettice and Houſe-leek are commended.

The decoction of Cyprus Nuts, eſpecially with Cinamon and River-crabs juice, and juice of a Gooſe: Alſo the decoction of Sparagus with Wine and water.

Another. Take Birthwort, Cumin, each three drams with hot water: *An approved Theriac.* Take Nigella ſeed ten drams, Daucus, Cumin, each five drams, Cyprus roots and Nuts, each three drams, Spipenard, Bay-berries, round Birthwort, *Carpobalſamum*, Cinamon, Gentian, ſeeds of Siler Montanum, and of Smallage, each two drams, make a Confection with Honey; the Doſe is the quantity of a Nut with old Wine. *Confection of Aſſa.* Take *Aſſa fœtida*, Myrrhe, Rue-leaves, each alike, make it up with Honey; the Doſe is one or two drams with Wine.

Out of Abſyrtus, Lullus, Albucaſis, Rhaſis, Ponzettus. Take white Pepper thirty grains, with a draught of old Wine, take it often. Alſo Thyme is given in Wine. *Abſyrtus.* Drink upon it one ſpoonfull of Wine diſtilled with Balm. *Lullus.* Take dry Rue, Coſtus, wilde Mints, Pellitory of *Spain*, Cardamum, each alike, *Aſſa fœtida* one fourth part, Honey what may ſuffice, mingle all, and make it up; the Doſe is the weight of an Hazel-nut in drink. *Albucaſis.* A Hens brain drank with a little Pepper in ſweet Wine or Poſca. The decoction of Cyprus-nuts with Wine *A Theriac againſt the bitings of Phalangia.* Take Tartar ſix drams, yellow Brimſtone eight drams, Rue-ſeed three drams, Caſtoreum, Rocket-ſeed each two drams, with the bloud of the Sea-tortoiſe, make an Opiate; the doſe is one dram with Wine. *Another.* Take Pellitory of *Spain*, round Birthwort, each one part, white Pepper half a part, Horehound four parts, make it up with Honey; the Doſe is one dram. *Another.* Roots of Capers, long Birthwort, Bay-berries, Gentian root, each alike, drink it with Wine. Or drink Diaſla with ſtrong Wine, and Cumin, and Agnus Caſtus ſeed, *Another.* Take Nigella ſeed ten drams, Daucus, Cumin, each five drams, wilde Rue-ſeed, Cyprus Nuts, each three drams, *Indian* Spike, Bay-berries, round Birthwort, *Carpobalſamum*, Cinamon, Gentian root, ſeed of bituminous Trifoly, Smallage-ſeed, each two drams, make a Confection with Honey; the Doſe is the quantity of a Nut with old Wine. *Rhaſis.*

Out of Pliny, Celſus, Scaliger.

It is good for thoſe that are bitten by the *Phalangium* to drink five Piſmires, or one dram of the *Roman* Nigella ſeed, or black berries with Hypociſtis and Honey. Alſo Mariſh Smallage and wilde Rue, are peculiar againſt the bitings of the *Phalangia*: Alſo the bloud of the Land Tortoiſe is good, juice of Origanum, the root of Polymonia, Vervain, Cinquefoil, the ſeed of Garden Onyons, all the kindes of Houſleek, roots of Cyprus, Turnſole with three grains of juice of Ivy-root, in Wine or Poſca; alſo Caſtoreum two drams, in Mulſum to cauſe vomit, or in juice of Rue to ſtop it. Alſo Agnus Caſtus ſeed two drams: *Apollodorus* that followed *Democrates,*, calls a kinde of herb *Crocides*, by the touch whereof *Phalangia* die, and their force is abated; the Mat-ruſh-leaves next the root, eaten do profit. *Pliny.* Take wilde Vine-berries, Myrrhe, each alike, drink them out of one Hemina of ſod Wine. Alſo the ſeed of Radiſh, or root of Darnel muſt be drank with Wine. * *Celſus.* But amongſt many other remedies that are proved, one Antidote is due to *Scaliger*, who was the ornament of our world and age; the form of it is this. Take true round Birthwort, Mithridate, each two ounces, *Terra Sigillata* half an ounce, Flies living in the flowrs of *Napellus*, 22. Citron juice what may ſerve turn, mingle them. For ſaith he, againſt this venome or any other bitings of Serpents, Art hath ſcarce yet found out ſo effectuall a remedy. *Scaliger.* Juice of Apples drank, or of Endive, are the Bezar againſt the bitings of the *Phalangium*: *Petrus de Albano. Theſe are the moſt approved outward remedies.* Five Spiders putrefied in Oyl and laid on, Aſſes or Horſe dung anoynted on with Vinegar or Poſca: Take Vinegar three ſextarii, Brimſtone a ſixth part, mingle them, foment the place with a ſponge, or a bath, the pain being a little abated, waſh the place with much ſea-water: ſome think that the ſtone Agates will cure all bitings of the *Phalangia*, and for that reaſon it is brought out of *India* and ſold dear. *Pliny.* Fig-tree aſhes with Salt and Wine, the root of the wilde Panace bruiſed, Birthwort and Barley-meal impaſted with Vinegar, water and Honey and Salt for a fomentation. Decoction of Balm, or the leaves of it made into a Pultis and applyed; we muſt conſtantly uſe hot Baths. *Pliny.* Open the veins of the tongue, and rub the places ſwolne with much Salt and Vinegar, then provoke ſweat diligently and warily. *Vigetius.* The practicall men mightily commend the root of Panax Chironia. *Theophraſtus.* Anoynt the wound with Oyl, Garlick bruiſed, or Onyons, or Knot-graſſe, or Barley-meal with Bay-leaves, and Wine, or Wine Lees, or wilde Rue, lay it on with Vinegar for a Cataplaſme. *Nonus.* Take live Brimſtone, Galbanum, each four Denarii, *Lybian* juice and Euphorbium, each alike, Hazel-nuts pild, each two drams, diſſolve them in Wine, and with wine make a Cataplaſme, alſo inwardly it helps much. Flies bruiſed and laid on the part affected. Alſo a Barbel heals the bites of a venemous Spider, if it be cut raw and applyed to it. *Galen.* Anoynt all the body with a moſt liquid Oyntment with wax. Foment the part affected with Oyl, wherein bituminous Trifoly hath been ſoked, or with a Sponge and hot Vinegar, very often. Make alſo a Cataplaſme of theſe that follow, namely, with Onyons, bloudwort, *Solomons* ſeal, Leeks, Bran boyled in Vinegar, Barley-meal, and Bay-leaves, boyled in Honey and Wine. Make them alſo with Rue, Goats dung with Wine, Cyprus, Marjoram, and wilde Rue with Vinegar. *Aſclepias his Plaiſter.* Take ſeed of wilde Rue, Rocket-ſeed, Staves-acre, of Cenchrus, Agnus Caſtus, of Apples, Nuts, of leaves of Cypreſs, each alike, bruiſe all with Vinegar, and with Honey make a Plaiſter. *Aetius.* Lay the decoction of Lupines upon the place affected, the Eſchar being firſt taken away, then anoynt it with Gooſe greaſe, wilde Rue, and Oyl in the hot Sun or by the fire, or make a Cataplaſme of Barley-pap, and broth of Lupines. *Oribaſius.* An *Indian* Hazel-nut ſmeared on cures the bitings of the *Phalangia*: Oyl of Worm-wood, and the milk of Figs anoynted on, doth profit very much. *Avicenna.* Of hot aſhes, Figs and Salt with Wine make a Plaiſter: Alſo it is convenient to hide a great boll in ſand or hot aſhes, and by that means to ſweat with Antidotes. *Rhaſis.* Goats dung muſt be diſſolved with the Pulteſſes, and laid to the part affected. *Kiranides.* Lay on often cold Iron. *Petrus de Albano.* Foment the place with juice of Plantain daily. *Hildegard.* Oyl of artificiall Balſam is exceeding ſoveraign. *Euonymus.* A Fomentation of the branches and ſtalks of Maſterwort muſt be continued, or let him drink Vervain with Wine, and lay it on outwardly, firſt bruiſed. *Turneiſer.* Bruiſe Rue with Garlick and Oyl and lay it on. *Celſus.* You ſhall laſtly finde divers ſuch remedies in *Pliny* and *Dioſcorides*, ſo digeſted into order, that they rather require our ſilence, than our curious, and unuſefull repetition. Of this therefore thus far.

——Now let us ſee
That Spider with which our mindes well agree,
Who ſits within the midſt of's Net to watch
Where the Eaſt winde blowes, it ſhakes, he doth catch
Flies that but touch his Web, none can him match.

CHAP. XIII.

Of the tame or houſe Spider.

AMongſt Inſects, though many may be found (as *Pliny*, *Cælius*, *Curio* the ſecond, out of whom we have fetched many of theſe things, ſay rightly) that may exerciſe great wits, yet the nature of Spiders is worthy to be admired in chief, and is apparent by their curious working, as any reaſonable man will judge. *Ariſtotle* the greateſt diver into Nature, ſaith that this is the moſt magnificent, and wiſeſt of all Inſects. And *Solomon* himſelf at whoſe wiſdome all the world admired, amongſt thoſe four Animals that exceed Philoſophers for their knowledge, reckons up the Spider, dwelling as he ſaith in Kings Palaces, and weaving Webs that man cannot do the like. The Poets faign that the Spider was once a *Lydian* Mayd, that *Minerva* had taught to work with the needle, and weaving all curious artificiall work: But ſhe was grown ſo proud of this skill, that ſhe denyed that ever ſhe learned this of *Pallas*, and ſhe proceeded ſo farre in arrogancy, that ſhe boldly challenged *Minerva* to work with her in all theſe Arts: Wherefore *Pallas* diſdaining her pride, came, and ſharply rebuking the Mayd for her inſolence, brake all her fine wrought works with a Wand: At this the Mayd was ſore abaſhed, and thought to have hanged her ſelf; but the Goddeſſe pitying the poor Maids condition, would not ſuffer her to do ſo, but as ſhe hung by a very fine Cord, ſhe changed her ſhape into a Spider.

Pallas was angry, and in wroth ſhe ſaid,
Yet live and hang thou proud and haughty Mayd,
And that thou mayſt ſtill ſuffer 'tis my minde,
The ſame Law laſts for thee and for thy kinde.

But they that interpreted this a Fable or a Hiſtory, ſay that *Arachne* found out the art of ſpinning, ſowing, and weaving hemp, taking pattern by the Spiders. And this needs not ſeem ſtrange to any man, ſince the Swallowes found out the Art of plaiſtering, and for Oculiſts, Eagles for building, *Hippotamus* for letting bloud, *Ibis* for giving Glyſters, Goats for Antidotes, ſo Tortoiſes, Weaſels, Storks have inſtructed us.

The praiſe of the houſe Spider taken from the body of it.

To praiſe the Spider as I ought, I ſhall firſt ſet before you the riches of its body, then of its fortune, laſtly of its minde. If you conſider the matter of it, it is light, partaking much of Air and Fire (that are the moſt active and nobleſt Elements) but it hath little of earthly dregs and gravity. Conſider the figure it is wholly round and orbicular, or at leaſt Ovall, that is next unto it. The ſubſtance of it is thin, tranſparent, ſubtile, and though ſometimes by the abundance of plunder and prey, it becomes ſo cram'd, that it growes as great as a Walnut, and (if *Cardan* erre not) as great as a Sparrow ſometimes, yet if you ſee it hanging in its Web, againſt the light, it ſhines all through like a Chryſolite, and makes reflexion of beams moſt gratefull to the eye. It hath the ſame colour that *Ovid* writes that Lovers have, that is, pale; and when ſhe ſticks aloft with her feet caſt every way, ſhe exactly repreſents a painted Starre. As if Nature had appointed not only to make it round like the Heavens, but with rays like the Stars, as if they were alive. The skin of it is ſo ſoft, ſmooth, poliſhed and neat, that ſhe precedes the ſofteſt skin'd Mayds, and the daintieſt and moſt beautifull Strumpets, and is ſo clear that you may almoſt ſee your face in her as in a Glaſſe; ſhe hath fingers that the moſt gallant Virgins deſire to have theirs like to them, long, ſlender, round, of exact feeling, that there is no man, nor any Creature that can compare with her: ſhe hath feet not numberleſſe, as the Scolopendræ, nor is ſhe without feet, as ſome Inſects are, nor hath only ſix feet, as thoſe that want wings have, but eight feet, which number is next to the moſt perfect number, as all men know. Theſe legs alſo are made in a ſeſquitertiall proportion, which is moſt admirable and venerable; ſo that though the latter feet be alwayes ſhorter then the former, yet they hold ſtill their proportion. Many Philoſophers who hold that Spiders are blinde, are blinde themſelves, for were they blinde, how ſhould they make choice of thoſe places that are moſt convenient for to pitch their nets, and who ſhould lead them to faſten one thred to another, and ſhould know how to mend their Webs when they are broken by accident? when as alſo the tame and familiar Spiders will come from a diſtance to catch a Flie that toucheth but the ſides of their threds, they are the more bold to purſue them, and will take them as it were from hand to hand, as we have often ſeen. Truly they are blinde at noon-day, and underſtand nothing, who ſay, that Spiders are blinde. In this Spider there is no poyſon nor hurt, for if it bite it is without harm, and it is rather tickling then painfull. Alſo their very Carkaſes, and their bodies, their eyes, their excrements, are good and uſefull for many diſeaſes, as we ſhall make it plain enough when we ſpeak of their uſe. I know not what it was that made *Pennius* ſo frighted when he thought of eating them; for he knew a Noble *Engliſh* Lady, and *Phaerus* a Phyſician, that did often eat them without any hurt at all. For the truth is, Spiders are free from poyſon, and are very good for ones health. But becauſe it ſeems ſo horrid a Creature to ſome people, that the very ſight of it makes them fly from it, I rather attribute that to their melancholy apprehenſion, tenderneſſe and diſtemper, than to the ill form of the Spider. Nature hath uſed no leſſe elegancy and bounty in the Spider, then ſhe hath done in the Butter-fly, and Flie, and it is no light diſeaſe of the minde to diſdain ſo beautifull a work, and to be afraid of a Creature that weaves ſo curiouſly. Laſtly God hath given a wonderfull diſpoſition and nature of the skin to ſo wonderfull a body; for it doth not only once a year (as Vipers do) but every Moneth if ſhe be well fed ſhe changeth her skin, and recovers a new one that is more curious. Alſo it is of ſo excellent a temper, and ſo frugall in its diet, that in a wholeſome place, where ſhe can get any proviſion, ſhe will live alwayes. I think that to be the chiefeſt good amongſt the goods of Fortune, or rather Fate, that they carry the matter of their Webs in their belly, and they are ſo well ſtored with it, that a Spider can draw forth innumerable threds and weave them, and catch if need be, a hundred Flies, and have Nets enow to wrap them in. And though they have not meat in a Granary as Piſmires have, nor ready and growing up, as Bees have, but they live only upon food they light upon by chance, yet by Gods providence the prey comes flying by that ſuſtains them, and oft times they grow fat with plentifull diſhes that they take by hoſtility. Further, I ſhould think it no ſmall part of good Fortune given to the Spider, that when ſhe is ſatisfied with the troubleſome fare of the Court, yet ſhe never hath the Gout. You have heard that *Solomon* of old aſſigned her a place in Kings Palaces, that ſhe might be a pattern to his Courtiers, to labour, to be ingenuous, wiſe, frugall, and vertuous. There beginning her Webs ſhe workt with hands and feet, and never need to goe a hawking for Flies, ſhe feared no aſſaults, no treachery: and briefly, this moſt wiſe creature did bear rule in the great Palace of that great King. After him aroſe bad Princes, that were idle, followed ill counſell, that came to ruine, it is hard to ſay, how hardly they uſed the poor Spider, and commanded forthwith to ſweep her down with beeſoms and poles, as if ſhe had been a night-robber, and to tread her under foot, and to kill her. Preſently Furies ran and ſwept down and ſpoyled all thoſe learned works that had been wrought, ſo that ſhe could hardly eſcape the quick-ſighted beeſomes of thoſe lazy devils. She was moſt miſerable now, left all alone in ſo great abundance, and in ſo large houſes, ſhe could not finde one corner to be in. And by the Kings example, the Nobles and rich men drove out this Miſtreſſe of labour and vertue, and they would not ſuffer one thred to remain, that was a Token and Enſign of her great wiſdome. She when once ſhe went abroad to travell (as the Fabuliſt wittily ſaith) the Gowt by chance came to keep her company, though ſhe could hardly hold pace with her, but with great toil. When as now they had travelled one dayes journey, at night they took counſell to try their Hoſt, but they were of different opinions. The Spider going into the City, got into the houſe of a rich Citizen, and ſo ſoon as ſhe began to work and to ſpread her Tapeſtry and hangings, (by the example of the bad Kings) he forthwith hates her, and drives her out, and the ſame night he expos'd her to the rain and open air. But the Gowt being lame, when he could go no further, got into the firſt houſe of the Town, and could ſcarce intreat to be harboured in the pooreſt Cottage there; and when ſhe lay down, ſhe found miſery enough; ſhe had for ſupper brown bread that her ſtomach roſe againſt, and a little herbs, ſcarce any ſalt upon them, and water was fetcht from the next pond, in an earthen Pitcher to quench her thirſt; being thus entertained, ſhe required a bed to ly on, ſhe could get none but ſtraw or the planks to ly upon, and ſo ſhe lay down in pitifull miſery, lamenting and ſighing: But alas how wretched a thing it is for tender limbs, and that cannot endure to be touched (as ſaith *Hippocrates*) to ly upon ſuch a hard bed and pillowes. The next morning the Spider and the Gowt met again; the Spider complained terribly of the incivility and rudeneſſe of the rich Citizen, and the Gowt on the other ſide complained of her Hoſts poverty and poor fare, ſhewing

The praiſe of the houſe Spider from the goods of Fortune.

the black and blew marks the hard lodging had made in her skin; and when they had a while taken deliberation about it, they both agreed upon this, that the next night they would change their hoſt; that the Spider ſhould go to the poor cottages, and the Gowt to the Kings palaces and rich mens houſes: the Gowt not unmindful of this agreement, went to a very rich mans houſe, and lay down at the feet of a very well fed Maſter, that was very rich, and ſo ſoon as this kinde hoſt perceived her, with what humanity, embracings, and cheerfulneſs did he entertain her! down pillowes were laid under her, all the ſtools and chairs in the chambers are filled with the beſt feathers, and cuſhions laid upon them; the Kitchen was very hot, and all officers at work for proviſion; the table is ſpread with all dainties, and the cups fill'd with Wine; fat and cramb'd Capons, Pheaſants, Partridge, Peacocks, Quails, Turtles, that feed on figs and grapes, and thoſe birds that have two hearts to ſet them forth come flying to the table: Turbots, Gilt-heads, Sturgeons, are not worth ſpeaking of. The ſhell-fiſh of ***Campania*** with purple juice, and Oyſters from ***Abydus***, and whatſoever the whole ocean can afford, are ready. The Wines, are white, black, red, purple, ſweet, delicate, ſharp, ***Cecubum***, ***Falernum***, ***Chium***, powred forth in full bouls. To ſay nothing of the ſecond table brought from ***Tarentum***, and the dainty cates, with Roſe, Violet, and Iacinth coloured. Laſtly, no delights, dainties, pleaſures, or joyes are wanting, that the rich Gowt, (for ſhe is daughter to ***Bacchus*** and ***Venus***) with her ſiſters, the hand and knee-gowts, may be entertained delicately. The Spider alſo as good hap was, light upon a poor Cottage inſtead of a rich palace, and there ſhe teacheth man and wife what duties are uſeful for both, and fats her ſelf with care. But perhaps ſome man wil object that they can finde no good fortune in this, but only the Spider may be commended for changing her habitation and her hoſt; but it is very fortunate for her: for ſhe lives not only ſafer, and more at reſt, but ſhe doth not from the roof as from a watch-tower, behold any more adulteries, gluttony, riot, prodigality, laſciviouſneſs, plays, dancings, wantonneſs, dicings, cardings, and laſtly thoſe vanities, and beaſtlineſs, that never enter into poor mens cottages, whereof ſhe knew her ſelf to be guilty, whileſt ſhe lived in Courts and Palaces of great men, who ſo ſoon as they had driven forth the Spider, (the miſtreſs of labour and frugality) were preſently ſeiſed on by the Gowt, and not only ſo, but all luxury, diſſembling, lying, flattering, pride, entred into their palaces, or rather into their ears, eyes, and mindes, and polluted them with all wickedneſs and companions of all miſchiefs: were it not better for Kings to allow this good, frugal, wiſe, harmleſs little creature a room in their large chambers, than to hearken to, and to reward ſo much ſuch pick-thanks, and Court-flatterers, and voluptuous perſons, who by their wicked counſel and example will quickly corrupt the beſt men? I know not whether I were beſt commend the Spider for the gifts of her minde, as wiſdom, juſtice, valour, temperance, humanity, love of poverty, love of works, ſufficiency, cunning, cleanlineſſe, and her other vertues; or elſe her admirable art and skill in weaving her Webs. Her wiſdom appears in that, that when the Rivers are like to riſe higher, and drown her houſe, ſhe removes to ſome ſafer place. In fair weather when the Flies fly about, they weave not, but wait on their prey: ſhe runs away at the leaſt touch of any thing that troubles her, and hides her head in her hole (as Vipers do) that ſhe may feel the leſſe pain, and that her body being hurt, (which is eaſily healed) yet ſhe may preſerve her head that governs the whole body. Who taught them to know this? Did any ***Chaldean*** teach them, by the ſituation and poſition of the Stars? No indeed, but the Spider hath a certain divine wiſdom given her, as the Poet ſang truly,

Prayſes of the Spider from the gifts of her minde.

Her body moves by vertue of her minde,
Diffuſed in every part——

Moreover, ſo ſoon as they ſee an enemy faln within their nets, they do not preſently wound him, or bite him in a hoſtile manner, but they kiſſe as it were and tickle him, until they have all ſmeered him over with a clammy web fetcht out from the hinder parts with their hindermoſt feet, and have as it were bound him with bands, taking away from him all power of reſiſtance, flying away or moving; then that thred being faſtned to their web, they run to the centre to obſerve, if any new prey may fall within their nets: and thus ſometimes you ſhall ſee ten or twenty Flies hung up on a line on high, and the Spider will take them one after another, breaking their line they hang by, and faſtned to one of the hinder legs, will carry them to the centre of her work, and there devour them: ſhe feeds on nothing but the juice of Flies, and when the carkaſs is dry and void of all juice, ſhe throws it down as an uſeleſs burden to her web. Moreover, becauſe the female is ſomething greater than the male, therefore ſhe hangs under and obſerves, for fear the ſmall creatures ſhould perceive and take heed, but that they may fall unawares into her net, for by reaſon of her greater body ſhe is not ſo fit to catch her prey. But the male is more active, and lies a top, as if he were otherwiſe imployed, or elſe ſeeing all things from a very little hole in his net, he conceals himſelf that he cannot be ſeen. And when any by chance comes to his lot, how vigilant is he and intent after his game? for he will not let his prey eſcape, but he runs from the uppermoſt line to the loweſt ſuddenly, and when he hath his belly full, he laies up the reſt of his provant, and hangs them up by a thred to ſuck them another time. And when as by age the webs have loſt their clammy quality to hold faſt, the Spider either new weaves them, or elſe beglewes them anew and repairs them. Her work ended, ſhe either contains her ſelf in her hole, or watching above ſhe holds the thread drawn from the centre, as it were with her hands, whereby ſhe can go and come to her nets and retreat at pleaſure, and alſo (if any prey be taken) ſhe perceives it by the motion of her web. But to be more certain, before ſhe comes down, ſhe drawes her thred back ſometimes, that ſhe may know how it is by motion and weight. Then firſt ſhe haſtneth to the centre; which the enſnared little creatures either feeling or conjecturing, do lie ſtill, leſt by motion they ſhould diſcover themſelves and be more entangled; yet they cannot deceive the Spiders who with feet and eyes perceive their prey, and run ſwiftly unto it ſuddenly. But good God, what and how great juſtice is ſeen amongſt Spiders? None of them robs another of his wife, none of them enters upon anothers houſe; each of them lives by his own labour and poſſeſſions, and they hold it unlawful to break the bands that belong their neighbours:

But men are not ſo juſt, oh pity 'tis to ſee
How covetous they are, luſt reigns in each degree:
Adding houſe to houſe, both ſeas and lands,
And more worlds they fain would have in their hands.

Farther, they do not pitch their nets for ſuch creatures as are good, and uſeful, but to catch Hornets, Oxe-flies, Horſe-flies, Waſps, Drones, Breezes, Gnats, common Flies, which are to us like bawds, theeves, flatterers (as the Comedian ſpeaks) that breed us many inconveniences, but are no way fit to do us any good. Moreover, ſhe dares (as ſhe is very valiant and magnanimous) hunt after the Lizards young ones, whom ſhe preſently involves in her net, as they make reſiſtance, then laying hold of both their lips with a deadly biting, ſhe holds them ſo faſt, that ſhe makes them dye under her. And laſtly like another *Cacus* ſhe drawes them backward dead into her lurking place. And if by chance in this great conteſt, ſhe findes her nets broken or folded together, ſhe preſently repairs, unfolds, and ſpreads them anew with great dexterity. Farther yet, there is a fierce and everlaſting fewd between the Spider and the Serpent: for if at any time the Serpent ſeeking ſhady places, fals upon ſome places under a tree where many Spiders are, one or other of them will fall right upon the Serpents head with his net, and ſhe will ſo beat upon his brain with her mouth, that he will make a noiſe and hiſs, and be ſo vertiginous, that in this miſerable condition, he can neither break her thread, nor eſcape from her. Nor is their end of this combate, till the Spider have deſtroyed him. Let the *Romans* be ſilent concerning their battails on the ſtage, and the cruel combates of Elephants, when a little Spider dares fight with a horrid and wan black Serpent; and not only to fight with him, but to triumph over him, and carry away the rich ſpoils of her victory. Who would not admire ſo great force, ſo great weight, ſo ſharp and hard bitings, and almoſt incredible ſtrength, in ſo ſmall a body, and of no conſideration, having neither bones, nerves, fleſh, and hardly any skin? this cannot proceed from its body, but its ſpirit; or rather from God himſelf: In the ſame faſhion they enter the liſts with land and water Toads, and kill them in ſingle fight. For not only *Pliny* and *Albertus* the Philoſopher mention this, but alſo *Eraſmus* in his Dialogue of friendſhip, relates, how a certain Monk, who ſlept with open mouth, and had a Toad hanging at his lip, eſcaped by aſſiſtance of the Spider. Oft-times alſo they enter the ſtage with the winged Hornet, that hath a ſtrong ſting, and fibres almoſt of horn, who ſtraight by main force breaks through their webs, as great rich men do with the Laws, yet at laſt he is wrapt in a more tenacious glew, and pays for breaking open their houſes, and conquer'd in ſingle duel, he becomes ſubject to the Spider.

I muſt not paſſe by their temperance that was once proper to Man, but now the Spiders have almoſt won it from them. Who is there now, (if age will let him) who will be content with the love of one? and doth not deliver up himſelf body and ſoul to wandring luſt? But the Spider ſo ſoon as they grow up, chooſe their mates, and never part till death. Moreover as they are moſt impatient of corrivals, ſo they ſet upon any Adulterers that dare venture upon their Cottages, and bite them, and drive them away, and oft-times juſtly deſtroy them. Nor doth any one of them attempt to offer violence to the female of another, or to aſſault her chaſtity. So great command have they of their affections, ſo faithful and entire are they in their conjugal love, like Turtles. If you reſpect their houſhold government, what is there more frugal, more laborious, or more cleanly to be ſeen in the whole world? For they will not ſuffer the leaſt thread to be loſt, or placed in vain; and they eaſe themſelves by interchangeable work; for when the female weaves, the male hunts: if either be ſick, the other ſupplies both offices, that they may deſerve alike. So ſometimes the female hunts, and the male weaves, and this at any time when the one wants the others aſſiſtance; for we cannot think them ſo void of mutual love, that living ſo faithful in Matrimony, the one ſhould not lend a helping hand to the others neceſſities, and ſo by mutual courteſie they continues their friendſhip amongſt themſelves. The female at home being now learned from her Parents to ſpin and weave (as ſhe is wont to do with us) ſhe begins her webs, and her belly contains all the matter of them, whether it be for that at a certain time her entrails are ſo corrupted (as *Democritus* ſaid) or that there is a kinde of woolly fruitfulneſſe in her as there is in the Silk-worm. Yet *Ariſtotle* will have the matter to be without, like a thin ſhell which is drawn in length, by ſpinning and weaving; or after the manner of thoſe that ſhoot out their briſtles, as the Porcupine. However it be, they loſe not the leaſt end of a thred, but they undertake all by providence. Their love to their young ones no man can rightly deſcribe, but he that loves his children himſelf. For by mutuall incubation, they foſter their Egges, and raiſe up and increaſe the heet of them; and thouhg ofttimes they produce three hundred young ones, yet they bring them all up alike to labour, ſparingneſſe, diſcipline, and weaving, and love them all alike. I have oft wondred at their cleanlineſſe, when I have ſeen thoſe that were weak and ſick to go down to the bottome of their Web, out of their dens, and exonerate their bellies, leſt by the filth of their excrements their houſes, or Web, or threds ſhould be polluted. And theſe things ſhall ſuffice for their civill and œconomicall vertues. Now let us proceed to their art of making Nets, which is ſo offenſive to *Pallas*, for the Scholar exceeded her Miſtris in the curioſity of her work. Firſt therefore we ſhall conſider the clammy ſtuffe that drawes like Bird-lime, which loſeth not its tenaciouſneſſe by drineſſe nor by moyſture, we ſaid from *Pliny*, that ſhe drawes this ſtuffe out of her belly. But ſeeing that the males weave alſo, I think on good grounds, with our friend *Bruerus*, that it is drawn out of the entrails behinde. And ſince it cannot be exhauſted, we may wonder at the infinite and endleſſe power of God, and adore it, for it were next to madneſſe to aſſign this to bodily or naturall cauſes. Thoſe Spiders are held to be the beſt Artificers that work in Autumn, and are called *Holei*; they draw a thred that is ſmaller then any linnen or ſilk, and farre lighter, and ſo pure (ſaith *Ælianus*) that the whole Web wrapt together, will ſcarce make one thred as great as a linnen thred though it be never ſo ſmall. *Edwardus Monimus* deſcribed theſe, both Males and Females, very elegantly *Heptam: l.* 7. in theſe words:

————He hunts at home,
But ſhe doth weave within her tender loom,
And jugler-like, ſhe from her belly caſts
Great clewes of yarn and thred, which while it laſts
She works to make her Nets, and every part
She frames exactly by Dedalian art,
Her Web is faſtened to the beam, the threds
Are parted by fit lines at ſeverall heads,
She works from Centre to circumference,
The Web is made on both ſides for defence,
Pervious leſt when the Eaſt-winde doth ſet
Strong, it might break this tender worke, and yet
The ſtrongeſt Flie may be held in this Net.
No ſooner can a Flie but ſhake her thread,
The male runs to the Centre, and his head
Peeps forth to catch what comes, ſo is he fed.

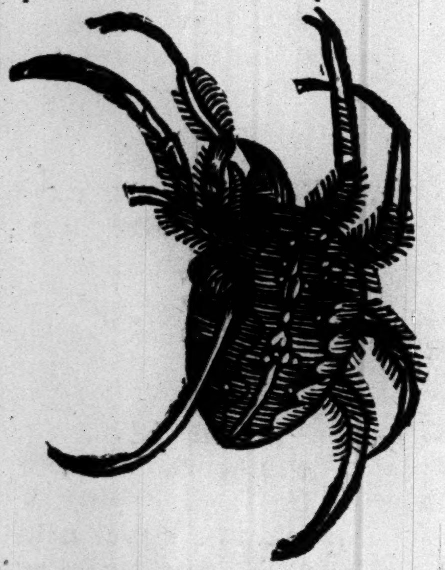
The variety of their Nets is ſo great, that it is not called amiſſe, the Goddeſſe of a thouſand works; ſome of them are looſer, ſome thicker, ſome triangular, others ſquare, ſome Diamond figures, for the commodity of the ſwiftneſſe of hawking: But that which is round is commonly wrought between two trees, or Reeds, and oft times in divers windowes, hanged faſt with ropes, and ſail-yards. Good God, what great reaſon, judgement, art, what admirable wiſdome and beauty ſhe ſhews! Truly we may not ſuppoſe amiſſe, to ſay that *Euclides* learned to make his figures from hence, and Fiſhermen their Nets; for from whence elſe could they fetch ſuch an example of ſo curious and laborious a Miſtreſſe? So finely is her work beſmeared, and made ſo round and exact, and ſo equally ballanced, and ſhe doth ſo work her body in place of a weight and ſpindle, that ſhe may well be compared with *Minerva*, but that the compariſon makes me afraid. Alſo the work is ſo firm, though it appear ſo weak, that it will hold Hornets, endure force of windes, and duſt being fallen into it, it rather yeelds than breaks or is hurt. The manner of her Net-work is this: Firſt ſhe drawes her ſemidiameters to the places circumabient, moſt fit for her work, then with no compaſſe, but by a naturall skill of her feet, ſhe makes 44 circles with her thread from the center to the circumference, by equall parts more diſtant one from the other. Moreover that is worth our knowing, as alſo it ſeemed moſt admirable to our moſt learned *Turnerus* and *Bruerus*, namely, that thoſe Spiders when they are purpoſed to faſten a thred from a high beam, in a right line to the earth, they hold a little ſtone with their feet, and then by degrees they let themſelves down by a three doubled thred, that the angle at the earth may anſwer the angle above by the beam exactly. But that above all the reſt is worthy of admiration, how they faſten the firſt thred on the hither ſide of the River, and the ſecond on the farther ſide, whereas Nature hath not taught them to fly, or to ſwim; I much doubt whether they leap over or not. The ſecond praiſes in weaving they deſerve, that build on the rafts of houſes, and other Field-ſpiders, who upon the graſſe weave a Net, that is broad, thick, and plain, and it is a Net indeed, ſpread forth like a ſayl, or ſheet. In the work of theſe Spiders, if you conſider, the wouf, the skains of yarn, the trendle, the ſhittle, the comb, the woof, the diſtaffe, the web, either you will ſee nothing, or you muſt ſee God inſenſible, yet really performing all theſe things: and truly in ſpinning, they go far before the *Egyptians, Lydians, Penelope, Tanaquil, Ameſtris, Romes Claudiana, Sabina, Julia*, and the Queens of *Macedonia*, that were wonderfully skilled in ſpinning, becauſe (beyond all ordrdinary reaſon and art) no threds being drawn overthwart, they make a ſolid and tenacious Web, of a ſtraight continued long thred. Their work being ended, they ſmeer it over with a birdlimy glutinous ſpittle, by the touch of which alone the prey is entangled, and payes for its blindeneſſe and want of foreſight. The colour of her Web is aereall and tranſparent, or rather no colour, which is the thing deceives the Flies that are not aware of it, and they that ſee beſt hardly eſcape it. For had it but any perfect colour, they would think what need they had to avoid it, and fly farther from it. The moſt ignoble

Spiders, (namely, thoſe that are ſluggiſh, fat, and that ly in holes) make but a very courſe Web, and groſſer thred by farre, which they hang only to holes in Walls. Theſe have a more heavy body, ſhorter feet, and are more unfit to ſpin or card, they light upon their prey rather by chance than ſeek for it, becauſe the hole is great without, and ſeems a fit place for Flies to hide themſelves in; but at the very entrance they are enſnared by the Spider, and catcht, and are carryed into the Shambles for Flies to be ſlain. For they ly deep in Walls, that they may eſcape the Birds that ly in wait for them (as Sparrows, Red-breaſts, Nightingales, Hedge-ſparrows) and that they may the ſooner enſnare the Flies that ſuſpect no harm. *And for Spiders that are harmleſſe, and for their Webs, let this ſuffice: Now we ſhall adde ſomething concerning thoſe kindes I have obſerved.*

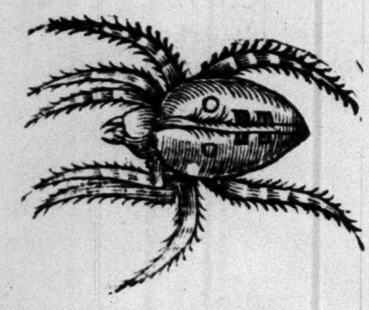
Chap. XIV.

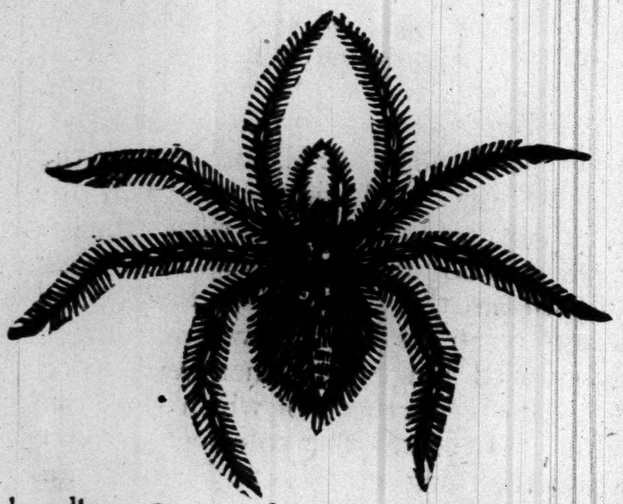
Of certain kindes of Spiders obſerved by Authors.

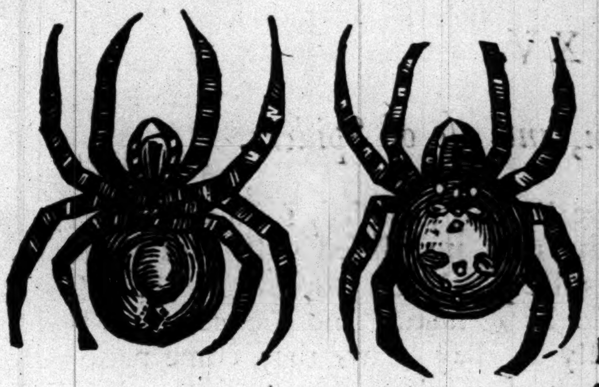
YOu may remember that I ſo divided Spiders, that ſome were venemous, and called *Phalangia*, and others were harmleſſe: Few of the *Phalangia* (and perhaps none) uſe to ſpin, but all the reſt ſpend their time in making threds or Nets. Some of theſe Net-work-workers are Houſe Spiders, others are field Spiders, ſo alſo are thoſe that make threds diſtinguiſhed.

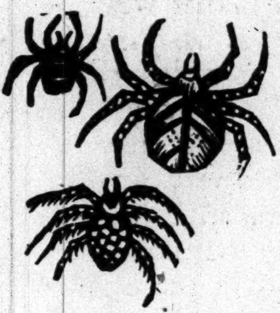


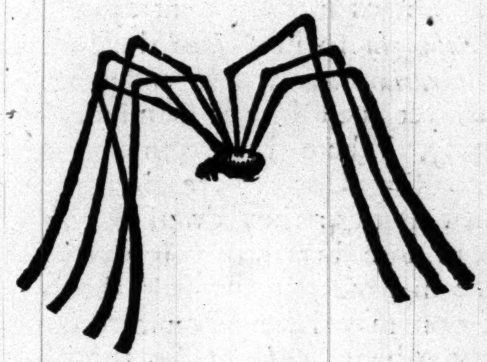
Amongſt the Net-workers I ſaw one the greateſt of all, I have ſet down the picture of it here. In Autumn amongſt ſmall Roſe-boughs it extendeth an artificiall Net, and it catcheth either another Spider running over it, or Gnats or Flies that come to it, when ſhe pulls her cord with wonderfull dexterity, and when ſhe hath hanged them thus up, ſhe leaves them till ſhe growes hungry again. She hath a frothy body, Ovall figured almoſt, it hath a little head with pinſers under the belly, and the back is adorned with white ſpots: This is one of the Autumnal *Holci*, and in a very ſhort time it will grow from the bigneſſe of a Peaſe to be as big as you ſee her here deſcribed. Amongſt the Web-makers, we have ſeen ſome ſpin a very fine Web, others ſpin one that was but moderately fine, ſome ſpin baſe ſtuffe, groſſe, rude, and ill favoured: The moſt ſubtile work-maſters are the Houſe-bred-Spiders, whereof we have here ſet down one of a brown colour, of the bigneſſe of the figure, and being placed between you and the Sun, it is of ſome tranſparency. This is it whoſe commendation was written by *Cælius Secundus Curio*, and the nature of it by *Pliny*, which taught *Heba*, *Penelope*, the *Egyptians*, *Lydians*, *Macedonians*, and others that were given to ſpinning. This field Spider weaves a moderate and ſtrong Web in hedges, ſtretching forth his ſheet with a Coverlaid, and where he dwells he waits for his prey. His Web is thicker that it may not rain through, and better to endure the force of windes, ſhe hath a brown body, but feet that are changeable colours, varyed with black and white ſpots in order, ſhe hath a forked mouth, fenced with clawes, the two white ſpots that are ſeen above in the head I know not whether they ſerve for eyes, the whole body is gently hairy; ſhe doth ſtretch out her Web wide and long, that ſhe may catch much prey, to which ſhe is very much addicted. This field Spider ſpins a baſe and unpoliſhed thred, and gathers it as it were into a bundle. *Pennius* firſt obſerved this kinde in *Colcheſter* fields between wilde Origanum watching for Flies, and he never ſaw it otherwiſe. It hath feet like to thoſe deſcribed juſt before, a round

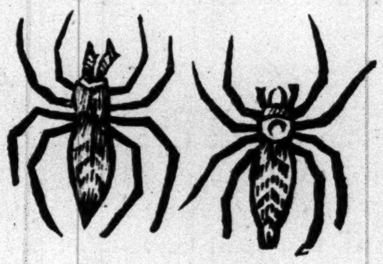


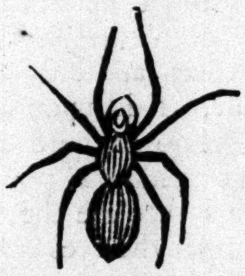












round body like a Globe, the back is marked with white ſpots, alſo it hath a fundament four ſquare, and black. Hitherto alſo we referre three kindes of the Spiders called *Lupi*, who live in chinks of Walls, heaps of ſtones, and old rubbiſh: they weave a baſe and ſmall Web in their holes, and in the day time they wander farther abroad in hopes of prey, which they ſet upon with great force, and draw into their dens. The greateſt of them is of a brown colour, it hath a head almoſt of Ovall figure, the body as a Globe, both ſides are adorned with two ſmall and ſhort white lines, about the middle of the back it is of a more whitiſh colour, it hath feet comely with divers black and brown ſpots: The middlemoſt is the leaſt, and grey-coloured; the ridge of the back is ſet forth by three Pearles as it were, whereof that which is next to the neck is greater and longer. The third ſeems to be blacker, wearing a Croſſe overthwart the back very white, and with right angles, and therefore ſome call it the holy Spider. I conjecture that theſe are of the Wolf kinde, becauſe they run with a kinde of leaping, and diſcover a great ravening appetite, for they lay up nought for the morrow, but conſume all their proviſion in one day. *Geſner* ſaw one of this kinde that was Aſh-coloured. There are alſo Spiders with long ſhanks, that make diſorderly and moſt rude work. The field Spider with a body almoſt round and brown, that lives about graſſe and Sheep, the Engliſh call it *Shepheard*, either becauſe it is pleaſed with the company of Sheep, or becauſe Shepherds think thoſe fields that are full of them to be good wholſome Sheep-paſture, and no venome to be it, (for this Shepherd taken inwardly, or outwardly applyed, is a harmleſſe Creature.) There are yet more kindes of Spiders, for there is a kinde of black Spider, with ſhort feet, that hath a white Egge under the belly, white as ſnow, and running ſwiftly; when the Egge breaks, many young Spiders run forth, which go all with their Dam to feed, and at night they reſt upon the Dams back. *Pennius* ſuppoſed that this was rough with warts, untill he touched it with a ſtraw, and ſaw the young Spiders to run down. Alſo in rotten hollow trees there are very black Spiders, with great bodies, very ſhort feet, that dwell with Cheeſlips, and Catterpillers called Juli. Alſo ſaith *Geſner*, we have ſeen them all white, with a compacted and broad little body, upon the flower of Mountain Parſley, Roſes, and graſſe, they have moſt long ſlender legs, the mouth is noted with a ſpot, and both ſides with a red line; he thought it was venemous, becauſe he ſaw a Munkey almoſt dead that had eaten one, and could hardly be recovered by powring Oyl down his throat. We know alſo Spiders with a long body, and a ſharp tail, they are red from black, as alſo green. Alſo there are red ones of two kindes, one great one that dwells only in the Caves of the earth, with a body Cinnaber colour, with feet yellow from red, the tail and belly tend toward yellow a little from brown. There is another ſort very ſmall, leſſe then a Sheeps Tike, as red as Scarlet, it hath but ſix feet, being a monſter amongſt Spiders; it hath a head like as Spiders have, but it is very ſmall: It lives in the earth, and weaves a very courſe Web, and not well wrought; ſometimes ſhe wandreth abroad, and ſhews great agility to catch her prey. We grant willingly that there are more kindes of Spiders, and of more colours; for our land brings not all things forth, nor yet did *Actorides*, though he was called πανόπτης, ſee all things. It may be future times may delineate the reſt better. In the mean time we have ſpoken of Spiders if not to delight, yet according as we thought fit, and we would do no more, becauſe in writing ſo much of them we have taken great pains: Yet this we ſhall obſerve, that all Net-workers, and Web-workers amongſt Spiders, do grow to have greater skill by age, and that ſhut up in Wooll, they increaſe the generation of Moths, and they yearly oft times caſt off their old skin, and the greater and luſtier they are, the more ingenious are they found to be in their gifts of life.

CHAP. XV.

Of the generation, copulation, and uſe of Spiders.

Generation. IT is manifeſt that Spiders are bred of ſome aereall ſeeds putrefied, from filth, and corruption, becauſe that the neweſt houſes the firſt day they are whited will have both Spiders and Cobwebs in them. But their propagation is frequently by copulation, the deſire and act whereof laſts almoſt all the Spring. They do by a mutual and frequent attraction of their Net, as it were kindle venery, and continually as they draw, they come neerer, then Copulation. at laſt they copulate backwards, becauſe that manner of copulation, by reaſon of their round body was moſt convenient: After the ſame manner do all the *Phalangia* that weave, copulate together, and they are generated from creatures of the ſame kinde as *Ariſtotle* teſtifies. But they copulate not in the Spring, but at beginning of the Winter; at which time they go faſteſt, and hurt certainly, and ſeem to be more venemous. Some after copulation lay one Egge alone, and carry it under their belly, and it is white as ſnow, and they ſit on it by courſe, the male ſometimes helping the female. Others lay many and very ſmall Egges, like Poppy-ſeeds, out of which ſometimes thirty ſmall Spiders are bred, after ſome trifling ſports in their Web, they go forth with their Dam, and in the evening they come in again, untill ſuch time as each of them hath learned to ſpin its own Web, to live more ſafely and pleaſantly, they thruſt forth their young by leaping, they ſit on their Egges three dayes, and in a Lunar moneth, they bring their young to perfection. The Houſe Spiders lay their Egges in a thin Web, but the field Spiders in a thick, becauſe they may reſiſt the greater forces of winde and rain; the place helps much for Generation. For as in the Countrey of *Arrhentia*, and in the Iſland of *Crete* there are great ſtore of *Phalangia*, ſo in *Ireland* there are none; they did not long indure in *England*, the Tower at *Gratianopolis* would ſuffer none, for though many of our Spiders ſwallowed down do hurt us, yet their bite is harmleſſe, and no man is killed by it, bur the bitings of all *Phalangia* are deadly. Where ſhall you not finde theſe Spiders that bite without doing hurt? they climbe up into Kings Courts to teach them vertue: they work in Noble mens Chambers to teach them their Duties: they dwell in poor mens houſes to teach them patience, to ſuffer, and to labour: Goe but into your Orchard, and each tree is inhabited by them, in your Garden, they hide in Roſes, in the field they work in hedges, you ſhall finde them at home and abroad, that you may have no cauſe to complain that there are no examples for vertue and diligence every where. *The Spider*, though *Pallas* called her impudent, *Martial* unconſtant, *Claudian* bold, *Politian* pendulous, *Juvenal* dry, *Propertius* corrupt, *Virgil* light, *Plautus* unprofitable: yet is ſhe good, and created for many The uſe. uſes, as ſhall appear clearly; wherefore adoring the Majeſty of God who hath given ſo great vertues to ſo ſmall a Creature, we ſhall proceed to ſpeak of the profits we receive by her. The Flie-catching Spider wrapt in a linnen cloth, and hang'd on the left arm, is good to drive away a Quotidian, ſaith *Trallianus*. But better if many of them be boyld with Oyl of Bayes to the conſiſtence of a Liniment; if you anoynt the arteries of the Wriſts, the arms and Temples before the fit, the Feaver abates, and ſeldome comes again. *Kiramides.* A Spider bruiſed with a plaiſter, and ſpread on a cloath and applyed to the Temples, cures a Tertian. *Dioſcorides.* The Spider called *Loycos*, put in a quill, and hang'd on the breaſt doth the ſame. *Pliny.* That Houſe Spider that ſpins a thick fine and white Web, ſhut up in a piece of leather, or a Nut-ſhell, and hang'd to the arm or neck, is thought to drive away the fits of a Quartane. *Dioſcorid.* *Pennius* ſaith he proved it to be true. Three living Spiders put into Oyl, let them preſently boyl on the fire, drop ſome of that Oyl warm into the ear that is in pain, and it profits much. Or preſſe out the juice of Spiders with juice of Roſes, and put it in with Wooll. *Marcellus Empir.* *Pliny* bids infuſe them in Vinegar or Oyl of Roſes and ſtamp them, and then drop ſome into the ear with Saffron, and it will ſtill the pain certainly: *Dioſcorides* affirms as much. *Soſtratus* περὶ ζώων, ſaith, that *Cranocolaptes* (a certain Spider) drowned in Oyl, is a preſent remedy againſt poyſons, as the Scholiaſt of *Nicander* profeſſeth. Some catch a Spider with their left hand, and bruiſe her in Oyl of Roſes, and drop ſome of it into the ear of the ſame ſide the *tooth akes*, and *Pliny* ſaith it is a cure. Laid upon their *own bites*, and taken inwardly they help us. What ſhould I ſpeak of the *Albugo* of the eye, a moſt hurtfull diſeaſe? Yet that is taken away very eaſily by the help of one Spider, if you do but bruiſe the longeſt and ſlendereſt feet (eſpecially of that kinde of Spiders that are the whiteſt) with Oyl, and anoynt the eyes affected with it. *Pliny.* Alſo the running of the eyes is ſtopped, (which the *Greeks* call ἐπιφορὰν) with the dung and urine of a Houſe Spider dropt in with Oyl of Roſes, or one dram of Saffron, or elſe laid on alone with Wooll: whereby you may know that there is nothing ſo filthy in a Spider that is not good for ſomething. *Aetius for ſuffocation of the mother*, applyed a Cerate of Spiders to the Navel, and ſaith it did great good. *Pliny* ſaith, that Spiders help the *ſwelling and pain of the ſpleen*, but he tells us not his reaſon. He ſaith moreover, that if any man take a Spider coming down with his thread, and bruiſed in the hollow of his hand, do lay it to the Navel it will *cauſe a ſtool*, but if he takes him climbing up, and applies him, *it ſtops the belly.* He writes alſo that a Spider applyed to one that knowes not of it, and taken off the third day, will cure a *Felon.* The head and feet being taken away, it helps ſwellings of the Fundament. *The ſame Author.* By the fume of Spiders all the Lice fall down and never breed again. Gooſe-greaſe and Oyl of Roſes with a Spider anoynted on the breaſts, keeps the milk from curding in them. *Anonymus.* Alſo that knotty Whip of God, and mock of all Phyſicians, the *Gowt,* which learned men ſay can be cured by no remedy, findes help and cure by a Spider layd on, if it be taken at that time when neither Sun nor Moon ſhine, and the hinder legs pulled off, and put into a Deers skin and bound to the pained foot, and be left on it for ſome time. Alſo for the moſt part we finde thoſe people to be free from the Gowt of hands or feet, (which few Medicaments can doe) in whoſe houſes the Spiders breed much, and doth beautifie them with her Tapeſtry and hangings. Oh the rare miracle of Nature! O the wonderfull vertue of a poor contemptible Creature! O moſt happy rich men, if they knew many of them how to make uſe of a thing ready to do them ſo much good! *Antoninus Pius* was wont to ſay, that the quirks of Sophiſtry were like to Spiders Webs, that had a great deal of art and ingenuity in them, but very little profit. But how often hath the bloud run forth of the body moſt miſerably by a freſh wound? yet it had been eaſie to have ſtopt it by laying on a Spiders Web, ſomething thick, and binding it faſt on, were we but more attentive to look to ſuch remedies that God affords us in our houſes. But we are greedy after forain remedies, fetcht from farre, as if they were better that we bring with great pains from the fartheſt *Indies,* or more healthfull becauſe of their greater coſt. But unleſſe mad affection did drive us, as if we were Gad-ſtung, through all the places of Sea or Land, to finde remedies to ſtop bloud, cure Ulcers, hinder corruption, drive away inflamation, knit wounds: One Spiders Web would do more good than *Sercocolla, Sandaraca,* Bole brought from *Armenia, Terra Sigillata, Argilla Samia, Terra Lemnia:* For it bindes, cools, dries, glutinates, and will let no putrefaction continue long there; wherefore it ſuddenly ſtops all bleeding at the noſe, (as alſo bleeding of the Emrods, and bloud in a Dyſentery, Menſtrual bloud, and all over great evacuations of bloud by the opening of the mouths of the veins) whether you give it alone with wine inwardly, and lay it on outwardly, or elſe mingle it with Bloud-ſtone, *Crocus Martis,* and other things of that kinde. Alſo the Spiders web is put into the Unguent againſt *Tetters,* and applyed to the ſwellings of the Fundament, it conſumes them without pain. *Marcel. Emp.* Alſo *Pliny* ſaith it cures *runnings of the Eyes,* and layd on with Oyl it heals up *wounds in the joynts.* Some rather uſe the aſhes of the webs with *Polenta* and wine. Our Chirurgians cure warts thus: They wrap a Spiders ordinary web into the faſhion of a Ball, and laying it on the wart, they ſet it on fire, and ſo let it burn to aſhes; by this means the wart is rooted out by the roots, and will never grow again. *Marcellus Empiricus* was wont to uſe the webs of Spiders ſound in the Cypreſs tree, in a remedy for the *Gowt,* to eaſe the pains. For the *Tooth-ache, Galen* 5. *κατ. τοπ.* out of *Archigenes,* commends highly Spiders Egges, mingled with Spike Oyl, and put into the tooth: Alſo *Kiranides* gives Spiders Egges to drink againſt a Tertian; whence we conclude with *Galen ad Piſon.* From the Spiders web we may underſtand enough, that Nature hath made nothing ſo vile, but thet it ſerveth for its neceſſary uſe; if ſo be Phyſitians would uſe more diligence, and would not diſdaign to enter into the wood of ſuch things as are eaſie to attain. Now I will proceed to other things, leaſt if I ſtay too long in the Hiſtory of the Spiders, I may indeed be ſaid to weave the Spiders web; yet I will add this, that Munkeys, Apes, Stellions, Lizards, Waſps, Ichneumons, Swallows Sparrows, Muskins, Hedge-ſparrows, feed on Spiders. And the Nightingale, that is the chief of ſinging Birds, is cured from ſome diſeaſes by eating of Spiders. When *Alexander* reigned, it is reported that there was a very beautifull Strumpet in *Alexandria,* that fed alwayes from her childehood on Spiders, and for that reaſon the King was admoniſhed that he ſhould be very carefull not to embrace her, leaſt he ſhould be poyſoned by venome that might evaporate from her by ſweat. *Albertus* alſo makes mention of a certain Noble Mayd of *Collen,* that was fed with Spiders from her childehood. And we in *England* have a great Lady yet living, who (as we ſaid before) will not leave off eating of them. I cannot but repeat a hiſtory that I formerly heard from our dear friend worthy to be believed, *Bruerus.* A luſtfull Nephew of his, having ſpent his eſtate in rioting and Brothel-houſes, being ready to undertake any thing for money, to the hazard of his life; when he heard of a rich Matron of *London,* that was troubled with a Timpany, and was forſaken of all Phyſicians as paſt cure, he counterfeited himſelf to be a Phyſician in practice, giving forth that he would cure her and all diſeaſes. But as the cuſtome is, he muſt have half in hand, and the other half under her hand, to be payed when ſhe was cured. Then he gave her a Spider to drink, as ſuppoſing her paſt cure, promiſing to make her well in three dayes, and ſo in a Coach with four Horſes he preſently haſts out of Town, leſt there being a rumor of the death of her (which he ſuppoſed to be very neer) he ſhould be apprehended for killing her. But the woman ſhortly after by the force of the venome was cured, and the ignorant Phyſician who was the Author of ſo great a work, was not known. After ſome moneths this good man returns, not knowing what had happened, and ſecretly enquiring concerning the ſtate of that woman, he heard ſhe was recovered. Then he began to boaſt openly, and to ask her how ſhe had obſerved her diet, and he excuſed his long abſence, by reaſon of the ſickneſſe of a principal friend, and that he was certain that no harm could proceed

ceed from ſo healthful phyſick; alſo he asked confidently for the reſt of his reward, and to be given him freely. Truly in this preſent corruption of manners and times, how highly is ſuch a Mountebank eſteemed, wherein chance is accounted for skill, and one accidental raſh cure of a diſeaſe, with danger oft-times of the patients life, makes a Quackſalver a great Phyſician, and he is judged worthy of praiſe and honour? But a better revenging Judge will correct theſe things; we paſs on to Piſmires.

CHAP. XVI.

The commendation of Piſmires; wherein we ſhall deſcribe their Differences, Nature, Ingenuity and Uſe.

TO begin with the commendations of the Piſmires, I know not whether I ſhall firſt ſpeak of their body or minde, ſince Ants for both are not only to be preferred before many Inſects, but alſo before many Men; for they are not one ey'd, nor horrid skew-ey'd, nor do they walk with crammed guts, as *Ballio* doth in *Plautus*, nor yet are they miſhapen, crook-leg'd any way, gorbellied, over cloſe kneed, blub-cheek'd, great mouthed, lean chopt, rude foreheads, or barren, as many great Ladies, and noble Women are, who have loſt the faculty of generation; but the beauty of their body followes the goodneſs of their minde, and nature hath given them for their degree and order, a conſtant and abſolute perfection. *Cardan* was the firſt ſaid they were blinde, becauſe their body is ſmall; not remembring that there are many Flies and Gnats that are far leſs than Ants, yet they have eyes and can ſee well. If they were blind, I ſee not what the light could profit them, and they would work as well in the night as in the day. I confeſs that their foreyards ſerve them for a ſtaff to prove the way, not that they do not ſee what way they go, but becauſe by thoſe means they try the hardneſs and ſoftneſs of things. They have a very little head, but round as the heavens are, wilde brain'd, ſet with eyes, a mouth with teeth, and a throat not without a tongue and a palate; they have a ſquare breaſt with ribs to defend it, with lungs, or bellows that ſupply their room, that are ſo firm, and yet looſe, that they never grow out of winde by labouring, but alwayes draw their breath moſt freely. They have a ſtomach in their belly that is ſtrong to digeſt venome, (for they feed often on Serpents and Toads) and they are very hot in the matrix, and very fruitfull, to their commendation. What ſhould I here mention their ſwift walking, and their equall motion when they goe? fot they not only out-goe pack-horſes for the proportion of their bodies, but out-run the ſwifteſt Chariots. They vary in colour, according to the difference of their kindes and places. For there are red ones in *Mauritania*, and the Inhabitants of *Budemelum* have white ones. In *Europe* they are moſt an end black ones, yellow, and ſomewhat red from tawny. Here they ſeem very ſhort, ſmaller, fine necked, ſlender, and weak bodied; yet theſe will carry a weight thrice as great and heavy as themſelves; and thoſe in *India* of a great bigneſſe, will carry great pieces of fleſh with them, and devour it.

Their praiſe from their minde.

Their bodies you have ſeen, now ſee their minde,
It's a ſparing and laborious kinde,
And holds and keeps whatever ſhe can finde. Virg. 4. Æneid.

Truly, as often as I remember the profuſeneſs of *Caius Julius Cæſar*, the luxury of *Caligula*, the prodigality of *Nero*, the exceſſive gluttony of *Apicius*, and the great waſte of *Heliogabalus*; ſo often do I exceedingly commend the wit and ingenuity of the Piſmire, and prefer her prudence before that of Men. I know that they lived ſweetly, and with fat patrimonies from their fathers, they gained large inheritances; yet they found out new uſe of baths, dangerous kindes of meats, curioſity in banquets, ſhips made of cedars adorned with Jewels, the drinking of pearls, and they waſted as much in one year, as they could extort for tributes and cuſtomes, or by plunder both at home and abroad all their life time. *Licinius Craſſus* had formerly much riches, who being brought to need, was laught at by all that met him, and the people in a jeer, called him the rich *Craſſus*. And (Oh God!) ſaith the Comedian, what a miſerable thing it is for a man to have had a great eſtate formerly, and to have nothing now? how much better were it for us to imitate the Ant, who gathering corn in Autumn, doth not waſte it prodigally in Winter rioting, but keeps it providently for future uſe, and daily ſtore? Hence it is that ſhe is never tortured with hard poverty, nor is ſhe toſſed on the billowes of croſs fortune, nor is ſhe endebted or in danger by borrowing from others; nor doth ſhe ſeek from other creatures either work, or ſuſtenance to maintain her, and keep her in health: and if frugality comes from fruits, as the Etymologiſt derives it, (for our Anceſtors, the Maſters of old ſobriety, ſcarce knew any other diet) it is very credible that that vertue is paſſed from our firſt parents into the Piſmires, who feed only on dry corn to maintain their lives, and avoid all ſuperfluity of many diſhes. Hence the Poet elegantly feigned that the *Myrmidons*, the moſt excellent people of the Greek Nation (if you conſider their temperance, their labour and their diligence) were deſcended of the Piſmires. For whence could they have gotten ſo great abundance of riches and goods, unleſs by an Emmets prudence they had preſerved what they had gotten and laid up to prevent poverty? And as ſparing in keeping, ſo diligence in getting, and wiſdome and induſtry is found to be admirable in them. They take a very commendable way firſt to preſerve their life, then for their poſterity, and laſtly to provide their victuals. Firſt of all, they build themſelves an houſe, as in the golden age, not covered with tyles for delight, but with green turfs, and not made of bricks, but fenced with mud-wals. Hiſtories do mightily magnifie the Pyramides, and trenches of *Egypt*, and the Labyrinth of *Crete*. But no man can ſufficiently ſet forth the excellent work of trenches that the Ants make, the figure, the magnificence, the turnings, windings, and revolutions thereof: for theſe by an unſpeakable prudence, beyond all mans art, make houſes under ground with ſuch ſtrange turnings, that they open only the way that is unacceſſible to others, and is not poſſible for any that would do them wrong to enter at. Firſt they make the earth hollow with their tender nails in the place of ſpades; and to throw the earth forth, they uſe their hinder feet for ſhovels: hereby they caſt up a mount, and fence it about as with wals or forts; then they cover their work with chaffe, ſtraw, leaves, bowes, bark, and pieces of ſticks, and laying on new matter, they raiſe a tower that may be ſeen afar off, (called an Ant-hill) which is far higher and more ſloping than the foundation, partly that their houſes may not fall by rain ſtaying about them, and partly that they may live the more healthfully by reaſon of the air that penetrates and paſſeth through. This divine little creature fetcheth the faſhion of its building from heaven, either becauſe their multitudes required room, or their excellence required the beſt. The entrance is not right forth but turning with many labyrinths and muſes; they diſtinguiſh their chambers in this tower of theirs in a threefold order, yet it is ſo hard to come into them, that *Argus* who was all eyes, may be often deceived in them. The firſt room is large enough, like the Preſence-chamber, where they all meet, and convene, we call it the univerſal Congregation houſe of Ants: under this for the females, there is the feminine room arched by *Dadalean* Art, wherein the eggs are laid ſafe that they may produce their young ones, it is made leſt they ſhould be thought careleſs of poſterity. The third chamber is moſt inward, and moſt ſafe from ſhowres, and that is built for their ſtore-houſe for their corn, that as it were in a granary they may lay up their belly-timber, and may fence it well from the winter cold that ſearcheth into all things; the adjacent parts and outmoſt skirts of their caſtle they appoint for a place of burial, and there they bury their dead with honour and ſtate. And this is the manner of their building, plain indeed, and within the ground, as were the houſes of the wiſe men of elder times, before that pride, and the head-ſtrong ambition of *Ninus* invented to build up towers to heaven. Since his death, ſhall I ſpeak of Kings or Princes? Truly there are ſome Citizens of the lower bench, who with extraordinary charge do build up, not an Ant-hill, but *Mauſoleum*, or a priſon for their bodyes, and adorn it with all the coſt and art they can; worthy they are indeed to be devoured by Piſmires whileſt they live, that dying by the force of a wiſe Creature, they may ſuffer for their folly. Nor do Ants build houſes that are places for idle people, or ſuch as are miſchievous to harbour themſelves in, but every one, yet without any Commander, followes ſome honeſt labour, and for the good of their democraticall ſtate, each one mutually employs his pains by turn. For they all, like thoſe that labour in the Mines, do ſtoutly exerciſe themſelves in digging of trenches, ſome ſerve to repair their houſes, to adorn them, and to keep them clean, others with great aſſemblies and funerall ſolemnities bury their dead, in the place of buriall adjacent, others again viſit the ſick, and out of their Granary they fetch ſome Phyſicall grain, (for they have Corn and grain almoſt of all plants) and prepare that and carry it to them. They have Officers of all ſorts, as Purveyours for Corn, Gleaners, Storers, Yeomen of the Larder, Houſholders, Carpenters, Maſons, Arch-workers, Pioners; for ſuch is the vertue and skill of every one, that each Ant knowes what is needfull to be done, and willingly doth his beſt to help the Common-wealth. But in their ordinary work what labour and diligence do they uſe? If they be minded to build an Ant-hill preſently, or elſe are forced on a ſudden to raiſe a new houſe, the old one being undermin'd and decayed by the Moles digging under them, they go forth all in troops, and from the rubbiſh of their houſes thrown down they build new ones hard by. Firſt they gather together their ſcattered Egges, and Corn, and put each of them in their proper places, afterwards they repair their hill, and covering and thatching that well, they keep all ſafe and dry: when the Sun ſhines, when they go forth to fetch Corn, the greater and elder go before them as Captains, the reſt follow after. They creeping up to the top of the ſtalk, bite off the ears of Corn, and the young ones ſtay and gather them up, and the Chaffe being fallen off, they pull the Corn out of the husks, and then they carry it home; and the end of it being eaten off, if there be neceſſity, they ſet it at their doors a ſunning, and when it is ventilated they lay it up again. When gleaning is done, they frequent the threſhing floors, and there not by ſtealth, but openly they take ſuſtenance for their lives, and they enrich their treaſury. Which labour of theirs *Virgil* wittily deſcribes in theſe Verſes.

As when the Ants plunder a heap of Wheat,
Minding cold Winter, ſtore it up for meat.

Their black Regiments through narrow wayes paſſe,
And carry their prey over fields of graſſe,
Some bear the burden, ſome them forward drive,
Chaſtning delayes, who ſhall work moſt they ſtrive.

Wherefore not unfitly did the Prince of morall wiſdome, ſend thoſe ſluggiſh and ſlothfull Monſters of Mankinde (who like Mice live alwayes on other mens labours, and goe from dore to dore like Vagabonds to beg a peny) to learn wiſdome of the Ant, that by the example of the Ant, they may uſe opportunity, and lay aſide begging, eſteeming labour much, which is the Merchant for all that is good. Hitherto belongs that of the *French* Poet.

Poor Sluggard who doſt live in penury and want,
Behold the houſhold prudence and wiſdome oth' Ant,
Leſt ſhe ſhould ſtand in need, which ſhe doth greatly fear.
She gathers in one moneth, to ſerve her a whole year.

This is their diligence in gathering, their care in preſerving, their prudence in ſtoring, their œconomicall skill in diſtributing what they have laid up. I ſhall ſhew you alſo their modeſty on the way, which me thinks ſhould not be over-paſſed. For though they go in a narrow way, yet are there no brawlings, contentions or ſtrivings for it, nor yet any murmurings, or fightings, or ſlaughters amongſt them for place, (as it is uſuall amongſt proud men.) But the younger gives place to the elder, and he that carries no burden, to him that is loaded, and each of them is ready modeſtly rather to paſſe by an injury, then Waſpiſhly to offer one. If any man compare their burdens with their bodyes, he will confeſſe that no Creature hath more ſtrength, conſidering their proportion. They carry their burdens in their mouths; the greater burdens they attempt to take up backwards with their hinder feet, and lay their ſhoulders to them with all their might. They have all a care and mindefulneſſe and endeavour for the publick good. They ſtore up the ſeed they firſt bite, leſt they ſhould grow again in the earth; when they are ſubject to grow mouldy, and are wet with rain, they bring them out and dry them in the Sun, wipe and torrefie them, and then they lay them up in their Granaries again. The greater ſeeds they divide at the entring. They work alſo at the full Moon in the night, (as good Mowers are wont to do) and when the Moon is in conjunction and hid, then they forbear labouring. But what pains do they take in labouring? How dilgent are they? And becauſe they work in divers places, to come home with it, the one not knowing what the other doth. Certain dayes (ſaith *Pliny*) are appointed for a generall ſurvey, and meeting to enquire into the buſineſſe, what running together of them is there then? how civill is their converſation? how complementally do they ſalute one the other? how diligently do they ſeem as it were to talk together, and to make enquiry? You ſhall ſee ſee Flints worn in the path they goe, and a path made in Marble ſtones, that no man may doubt but that diligence will doe ſomething in any matter; for they all goe almoſt in the ſame path. For if one carry a burthen too heavy for him, the reſt in the way will come and help him, lending their legs and ſhoulders, if it be a light burthen the fewer come to aſſiſt, if a weighty, more come, and either draw back, or thruſt forward, or if the burthen be too great, by biting it in ſunder, and dividing it, they promote their buſineſſe: And by this means they bring home a great heap of ſtraw and ſticks to their houſes. Now if any will attempt to hinder the Ants in their labour, (as the Serpents and Toads often doe when they meet them,)

——They fight and will not flie,
And hold it noble in theſe wars to die.

For then (making as it were an agreement) they conſpire together, and with horrid and cruell bitings, they deſtroy the enemy. He that hath not faſtened upon the common enemy, thinks he hath deſerved little of the Common-wealth, and upon that ſcore they fight. In the time of harveſt, when ſuch an accident falls out, they do not meddle with a dead body, but preſently as the enemy is vanquiſhed, they fall to their labour again, and they gather up again the Corn they laid aſide before the battell, and lay them up; for they hold it no prudence to ſtay to plunder, when greater buſineſſe doth require their induſtry, and they hold it ignoble to conteſt with thoſe that are dead. They feed chiefly on grains of Wheat, Winter Corn, Barley, and hard meat which they delight in. They take great pleaſure in Cyprus Nuts, and the tender flowers of herbs that are red. They eat Scorpions (called *Geraret*) ſaith *Rhaſis*, and they feed on the Carkaſes of Serpents and Frogs when they are hungry. Otherwiſe they abhorre to eat corrupt and venomous things; nor will they touch fruit polluted with Menſtruall bloud, nor taſte of them. Have not men by reaſon of hunger been compelled to feed on Horſes, Wolves, Serpents, graſſe, and dead bodies in time of narrow ſieges? That is ſufficient to prove their cleanlineſſe, that they carry out their dead in the husks or bladders of trees and Corn, as of old time the *Romans* buried their dead in pots, but they now carry them forth on Biers. They delight to live in clean houſes, and for that purpoſe they do not lay their dung, (that is like to Urine) within doors; and when they travell through dirt, and are bedawbed, at the entrance of their houſes, they rub themſelves clean againſt ſome rough bark. They love and take ſuch care for their young ones, that they alwayes carry their Egges in their boſomes, ſo long as they are little, and not ſo overgrown that they hinder their labour; but then they lay them up in their deep hollow Cave, that they fruſtrate the birds that prey upon them, as the Wood-pecker, the Nightingale, and alſo the Bear. But ſo ſoon as the young Piſmires come forth of the Egges, they immediately ſhew them the way to labour and take pains, and if they refuſe to work they will give them no meat. Hence you may obſerve that they ſet every one his task: The ſtronger with their mouths, feet, little noſes, do caſt up the earth, and when they have caſt it forth, they make it up in heaps, when they heap it up, they mingle ſtraw with it, that it may lie light, and lie hollow. The wiſer ſort of them do build, the leſſer of them remain in their trenches, and work, the more expert make windings like Mæandres and Labyrinths, and frame vaulted Chambers. If they obſerve any to be idle, they not only drive them out, pinched with famine as a baſe breed, but they bring him before the door, and calling a Councell of them all, they put them to death, that their young ones may take example, that they may not hereafter addict their mindes to ſloth and idleneſſe. The dayes appointed for labour and gathering Corn, they ſet venereous action aſide; and chiefly in Winter, (when there is neither ſowing nor mowing) they couple together: yet for modeſty ſake they uſe venereous actions within doors, as the Bees do, at this time they make much of their Females, and when they are great with Egges they embrace and love them moſt. Above all they take care (O wonderfull love to their young ones) that nothing may be wanting to their off-ſpring for food or inſtruction. He only can doubt of the valour of Piſmires who never ſaw them fight, nor heard the report of their battels. For they are not only full of choler, (as the proverb is) but they have a purpoſe to fight, ſo that they either joyn battell with externall enemies, or elſe hold civill warres amongſt themſelves, when they want food. For though Piſmires never fight when their Granary is full, and their Democraticall Government ſtands faſt whilſt they have plenty of food; yet (what we read to have hapned in the beſt ordered Monarchies) in a dearth, or rather want of proviſion, they fight deſperately for food, and for their lives, and the leſſer of them will rebell againſt the greater, (as being the greater gulphs of the Common-wealth.) It is the nature of neceſſity to give and not to take Lawes, and then chiefly when the belly a troubleſome Client, doth feed on it ſelf, and the guts croke and are empty. There are few juſter Kings then *Lyſimachus* was ſaid to be, nor were there better ſubjects then the *Athenians*, yet both of them did many things diſorderly in famin, and he gained thereby to be branded with the name of a puſillanimous, faint-hearted Prince, and they of rebellious Subjects. Therefore this warre of the Piſmires is to be commended, that is not undertaken for a Crown of Ivy, Bayes, or of Gold, or of Graſſe, (which was accounted the moſt ancient) but from inteſtine neceſſity, and nature leads them to it; for neither could *Solon* himſelf endure thirſt, nor *Solomon* conquer hunger. For theſe will dig under all walls, will be held by no bands, and they only know neither Lawes nor bounds. *Æneas Silvius* relates a ſtrange hiſtory of this fight, *lib. de Europa, c.* 50. His words are theſe. In the County of *Bononia*, many little Piſmires that were hungry, clambered up a dry Pear tree to ſeek for food, the greater Piſmires came upon them in no ſmall number, and theſe took the meat out of their mouths, and killed ſome of them, others they threw down, thoſe that were caſt down returned to their Ant hill, or fort, in the way they meet with others, and ſeemed to talk with them, and rip up the injury they had received, and they bring forth all the forces they had, and their companions out of their tents. About two hours almoſt afterwards, ſo many bands of the leſſer Piſmires, and ſuch a mighty Army drew forth, that the whole field appeared black by theſe black ſouldiers; they came all well guarded, and compaſſing the ſtock of the tree round, they began to climbe up. The greater Piſmires when they ſaw their enemies at hand, drew cloſe into a body to receive the encounter aloft; ſo ſoon as the Armies met and fought, the great ones killed abundance of the leſſer ones with fierce biting them, and they deſtroyed all thoſe in a terrible skirmiſh that firſt ventred up, that at the root of the Pear-tree there lay a great heap of them ſlayn. The reſt of the little Piſmires and the middle Army would not be daunted by this, or run away, but they recollect their forces, and attempt to be revenged, and following more ſtifly, and preſſing one Army after another, they mounted up the tree in greater numbers than before, and they bite their enemies on the back, on the ſides and in the front, and they forced them to yeeld, and leave the tree. The greater Piſmires were much too ſtrong for them, but the numerous multitudes of the little ones prevailed againſt them, and twenty at leaſt ſet upon one. This happened when *Eugenius* the fourth was Pope, *Nicolaus Piſtorienſis* a moſt learned Lawyer ſtanding to behold it, and he related the manner of the fight ſincerely and truly. *Olaus Magnus* reports the like accident to have hapned at *Upſal* and *Holme*, before that barbarous and cruel Tyrant *Chriſtianus* the ſecond was driven forth by the Inhabitants of *Sweden*, from ruling over the *Goths* and *Swedes*. In which battel that muſt not be forgotten, the leſſer Piſmires after they had won the field interred the bodies of their fellowes, leaving their enemies expoſed to the Crowes and Muſkins; alſo they made choice of a high Tower for the place of combat, as if they would with a clear voice call and draw unto them the prodigy of Tyrants and his followers, to ſee their deſtiny revealed, and the puniſhment that hang over their heads. Alſo they hurt Elephants and Bears, but not unleſſe they be firſt hurt by them. They afflict Serpents and Dragons and make them mad, but it is either becauſe they hinder them in their labour and ſtop the way, or becauſe they breath their venemous breath into their caves and turrets. Graſhoppers and Dormice they hate exceedingly, thoſe becauſe they ſpend the Summer time in ſinging, theſe becauſe they loſe the Winter in ſleeping, for a Common wealth well regulated doth puniſh idle perſons as well as thoſe that are wicked, and the *Spartans* were wont to caſt forth thoſe that would not labour. They live very long, and would hardly ever die, unleſs the Birds did catch them before their time, or the floods and waters drowned them. They are for the moſt part very healthful, becauſe they obſerve thoſe three rules of *Plato* very exactly, mirth in labour, temperance in diet, and ſparing in venereous actions. For what creature labours more chearfully, diets more moderately, or did nature ever produce that is more temperate in venery? Alſo there is in them many ſeeds of domeſtick diſcipline, juſtice, friendſhip and other virtues; and had we the like, either by nature or by art in us, we would ſcorn to live baſely on the labours of others, and we would refuſe to be ſlaves to our bellies. Moreover they have ſome ſenſe of future things; for before a famine they labour exceedingly, continuing their work night and day, and every where laying up a great ſtore, as *Juvenal* hath it *Satyr* 6.

———Hunger and cold away drive,
And from the Ant learn thou an art to thrive.

Since therefore (to wind up all in a few words) they are ſo exemplary for their great piety, prudence, juſtice, valour, temperance, modeſty, charity, friendſhip, frugality, perſeverance, induſtry, and art; it is no wonder that *Plato* in *Phædone*, hath determined, that they who without the help of Philoſophy have lead a civill life by cuſtom or from their own diligence, they had their ſouls from Ants, and when they die they are turned to Ants again. To this may be added, as I related before, the fable of the *Myrmidons*, who being a people of *Ægina*, applied themſelves to diligent labour in tilling the ground, continual digging, hard toiling, and conſtant ſparing joyned with virtue, and they grew thereby ſo rich, that they paſſed the common condition and ingenuity of men, and *Theognis* knew not how to compare them better then to Piſmires, that they were originally deſcended from them, or were transformed into them, and as *Strabo* reports they were therefore called *Myrmidons*. The *Greeks* relate the hiſtory otherwiſe then other men do; namely, that *Jupiter* was changed into a Piſmire, and ſo deflowred *Eurymeduſa* the mother of the Graces, as if he could no otherwiſe deceive the beſt woman, then in the ſhape of the beſt creature. Hence ever after he was called *Piſmire Jupiter*; or, *Jupiter King of Piſmires*. For the generation of Piſmires are endowed with ſo much virtue and juſtice, that they need no King to govern them, for each of them can regulate his own paſſions; or if they have any King, it is the Supreme *Jupiter*, that governs all, who is deſervedly thought to be the Fountain and Authour of all virtue both in Men and Piſmires, and all other creatures. For there is none amongſt men that doth govern better then the Piſmire; and we that ſhould teach them (as ſaith St. *Hieronymus*) may learn of them divers things that are neceſſary for our ſouls and bodies. For when contrary to their nature and induſtry they hide themſelves, we are certain that rain is not far off; and when we ſee them running here and there, and carrying their egges before them, we are warned thereby of great winds and tempeſts. Alſo thoſe that are well acquainted with Country learning, when they ſee the Piſmires run here and there, extreme faſt, twice as much almoſt as at other times, and take ſuch huge pains in gathering and ſtoring up Corn, they are warned of a famine at hand, and ſo buy up all the Corn they are able. For they more rightly and certainly by their naturall magick foreſhew Tempeſts, then our Soothſaying Almanack-makers, that are derided and exploded for vain fellowes by all godly and truly learned men. For let *Ennius* be heard;

They that are out ſhew other men the way,
And promiſe riches who have none to pay.
To whom they promiſed to them they pray.

Nor doth *Accius* leſſe elegantly deſcribe them, who was the chief in writing of Tragedies, in his *Atticis* we read thus;

I truſt no Wiſards, who have learn'd the skill,
With gold their houſes, others ears to fill.

They do better in my opinion who obſerve the Piſmire, and grow rich by following his manners in labor, induſtry, reſt and ſtudy. We read of *Midas* that he was the richeſt King of all the Weſt, and when he was a boy, the Piſmires carryed grains of Wheat into his mouth whilſt he ſlept, and ſo foreſhewed without doubt that he ſhould be endowed with the Piſmires prudence, and ſhould by his labour and frugality gain ſo much riches, that he ſhould be called the *Golden boy of fortune*, and the *darling of proſperity*. *Ælianus*. And when the Ants did devour and eat up the live Serpent of *Tiberius Cæſar*, which he ſo dearly loved, did they not thereby give him ſufficient warning that he ſhould take heed to himſelf for fear of the multitude, by whom he was afterwards cruelly murthered? *Suetonius.* They do teach us by their example of labour and virtue, both becauſe they do inculcate unto us parſimony and perſeverance, and alſo becauſe when they are grown rich they maintain perpetual and inviolable friendſhip. For though at ſuch a time one man is a wolf to another, and the deſire of having more increaſeth with gain, (which the *Greeks* call πλεονεξία, Covetouſneſs) yet as the *Comedian* ſpeaks;

> *In good or bad what ere it be,*
> *The Ant with Ant doth ſtill agree.*

And they never fight and jar but upon occaſion of extreme famine. *Horace* chargeth them with Covetouſneſs, becauſe they alwayes heap up more; but ſince they do that for the common welfare, that reproach of his is not their fault. But they eat Serpents, and live ſometimes on venomous things: I grant that, and may be they uſe it for their Theriac, and are not therefore Piſmires to be commended? Yes as well as the Storks, they ought to be fed from the common Treaſure, and I might ſay to be adored as well as the *Indian* Rat *Ichneumon.* In *Iſthmus* the Prieſts ſacrificed Piſmires to the Sun, either becauſe they thought the Sun the moſt beautiful. and therefore they would offer unto him the moſt beautiful creature, or the moſt wiſe, as ſeeing all things, and therefore they offered unto him the wiſeſt creature. But you will ſay, they are moſt hurtful creatures to Vines, to Dittany, to young ſhoots, and to many tender plants, and *Pliny* cals them *the plague of trees.* But *Gellius* cals them more properly *the revengers and judges of idle people*; for they by their labour call us out of our lurking holes, and drinking houſes, to till our grounds, and take care of our Orchards more diligently, and to exerciſe our wits, and to be more induſtrious in our buſineſs, and to do what is juſt and equall. Go forth then idle companions, and powre on a little hot water wherein lime hath been infuſed, and believe me not, but you ſhall drive all Piſmires away, and ſhall infuſe more life and ſpirit into all thy plants. Origanum, brimſtone, Aſſa, Nitre, Snails-ſhels, Lupines, Lazerwort, wilde Cucumbers, Buls-gall, boyl, and caſt on, or but in fume or ſprinkled: alſo many things there are ready to be had for one that is diligent and laborious, whereby you may quickly drive out this plague from your grounds, and you may expect a great retribution for your pains, abundance of fruit. Moreover all thoſe things that drive away Waſps and Hornets, that we ſpake of before, will afford you a ſufficient remedy, and will alſo kill all the Piſmires. Yet in truth, thou ſluggard, thou haſt more need to nouriſh up this creature and ſet up for it a ſtatue of gold. For ſo of old time they are ſaid to have done, when they worſhipped the Ant, in an hieroglyphick, holding three ears of corn in the mouth of it, as being an emblem of divine providence, and labour, and of houſehold care. For they are, to uſe *Ariſtotles* words, without any King, and under a popular government; yet every one of them is for himſelf a father of his Countrey, and they do to their power increaſe the common good as if it were for themſelves in particular. But if you object, that the Piſmires by biting cauſe redneſs, tumour, tickling, and then a grievous pain where they bite; I do not wonder at that; I rather wonder at this, how thou canſt look upon them, and not bluſh extremely, for thou canſt not chuſe but bluſh to ſee ſuch great induſtry in ſo ſmall a creature, and to behold the watchfulneſs, labours, journeys, ſweat, and toil that he is buſied in. Yet they do not wound idle people ſo much (whom alone they are ſaid to ſting) but it will be cured with an Emplaiſter of *Varignana*, made of Flies and Piſmires mingled together; for as Scorpions, ſo are they the remedy for the wounds they make; and they bring their cure along with them when they bite. *Pliny*, *Columella*, *Arnoldus*, *Ælianus*, *Albertus*, and *Vitalis*, will direct you in other helps, but you muſt not draw them out and apply them, without uſing the prudence of the Piſmire. Will you give me leave to reckon up the infinite benefits you may receive from them, for this ſmall detriment you accuſe them for? Now liſten what the Ancients write concerning the virtues of them, and judge uprightly concerning it. For they are not only meat for Serpents, Dragons, Beares, Locuſts, Rats, Dormice, Chameleons, Lapwings, Woodpeckers, Larks, Nightingales, Pheaſants, Wagtails, Hens, ſometimes to ſatisfie their hunger, ſometimes as remedies to cure them of ſurfets, as *Pliny*, *Solinus*, *Plutarch*, *Palladius*, *Euſtathius*, *Bellonius*, *Albertus*, and experience do witneſs: But alſo the Inhabitants of the Countrey of *Mangi*, do feed on red Piſmires ſeaſoned with Pepper, and they are their greateſt dainties as *Nicolaus Venetus* doth teſtifie. Alſo they are good to catch Locuſts, and to bait for many fiſhes, chiefly the Roch. As concerning Phyſick, there are but a few diſeaſes that theſe creatures, as the hand of God, do not yeeld ſome help unto. Doth a Feaver burn and ſcorch thee alive as it were in the Engine of *Perillus*? hearken, and I ſhall tell thee of an admirable water to quench that fire, and moſt effectual againſt it, as *Geſner* received it from a friend: Take fountain water one pound, honey three ſpoonfuls, ſhake them in a can, and ſet them in an Emmets hill, ſo that Piſmires may eaſily fall into it; when you find that ſo many are fallen in as will thicken the water, ſhake the Can, and as you uſe to do in making Roſe-water, ſo diſtill them. The doſe is half a ſpoonfull, or more as the Patient can endure it by reaſon of his force more or leſſe, it will wonderfully provoke vomiting, and will alſo evacuate the matter of the diſeaſe by Urine. *Pliny* is the Authour from the old ſayes, that a *Quotidian*, *Tertian*, *Quartan*, and all intermitting Fevers will be cured, if the ſick cauſe the parings of his nails to be caſt before the entring of the Ant hill, and if he catch the firſt of them that layes hold of them, and bind him up and tie him about his neck. Art thou troubled with *pains in thy ears*? go to, fill a glaſſe with Emmets and Emmets eggs, and ſtop it well, and bake it in an Oven

Their Phyſicall uſe.

with the bread, till it be as hot as the bread that begins to heat; then ſhall you find a water that is very uſefull to cure the pains in the ears if it be dayly dropped in. *Is there a cloud before the ſight?* preſſe out the juyce of the red Emmets, and drop it in, it doth corrode with ſome pain, and wholly extirpate it. *Erotus, Trotula, Theophraſtus.* Emmets egges beaten and put into the ears, remove all deafneſs quickly. *Marcellus.* Some bruiſe them and preſs out the watry ſubſtance, and drop it in. Some infuſe them in a glaſſe veſſell in Oyl, and boyl that on the fire, and powre that into the ears.

If Urine be retained and cauſe the *Dropſie*, drink twenty Piſmires, and ſo many egges with them in white wine, and they ſhall help you. Alſo their egges diſtilled do much when Urine is ſtopped. *Leo, Faventinus.* A Maid that cares for her beauty, and would make the *circles of her eye-lids black*, Emmets egges bruiſed with Flies will perform that, and give them their deſire. Some again either through age or diſeaſe (to uſe the Poets phraſe) are beaten in their property, and have loſt their generative power, that they cannot do the office of a husband if they would. Some Authours commend to theſe oyl of Seſamum with Emmets egges bruiſed and ſet in the ſun, if the yard and teſticles were anointed with it. To this oyl ſome add Euphorbium one ſcruple, Pepper, Rew ſeed, of each one dram, Muſtardſeed half a dram, and again they ſet it in the ſun. *Raſis.* *Arnoldus* in this caſe commends black Ants macerated with oyl of Elder. *Nicolaus* mingleth it with roots of Satyrium; and others do give the diſtilled water thereof to thoſe that are faſting. *Geſner* in *Euonymus* deſcribes a water conducing thereunto; Take ſaith he, a pot beſmeered within ſide with honey, and half full of Ants, then add long Pepper, Nutmegs, Cardamon, Pellitory of *Spain*, each one pugil, Butter what may ſuffice, and digeſt them fourteen dayes in horſe dung, then diſtill them in a Bath, and give a little duly to be drank faſting. Others, ſaith *Merula*, add Comfery to oyl of Piſmires; others *Borax*, or root of Maſterwort with Wine when the impotent man goes to bed, and thus they affirm that men may be cured of feebleneſſe, and women of barrenneſs. But I wonder at the force of Piſmires in this caſe, for *Brunfelſius* writes that but four Ants taken in drink will make a man unfit for venery, and abate all his courage thereunto: yet he will maintain that Emmets with common ſalt and egges, and old hogs greaſe, wrapt in a cloth and laid on, will cure the pain of the Hip-gowt. *Marcellus* ſaith, that if they be applyed with a little ſalt, they are a preſent remedy for a Tetter: Alſo as *Serenus* relates, they are good againſt ſcabs and itch from an inflamation of bloud;

The duſt in Emmets hils doth deep ly,
Being mingled with oyl, will help it by and by.

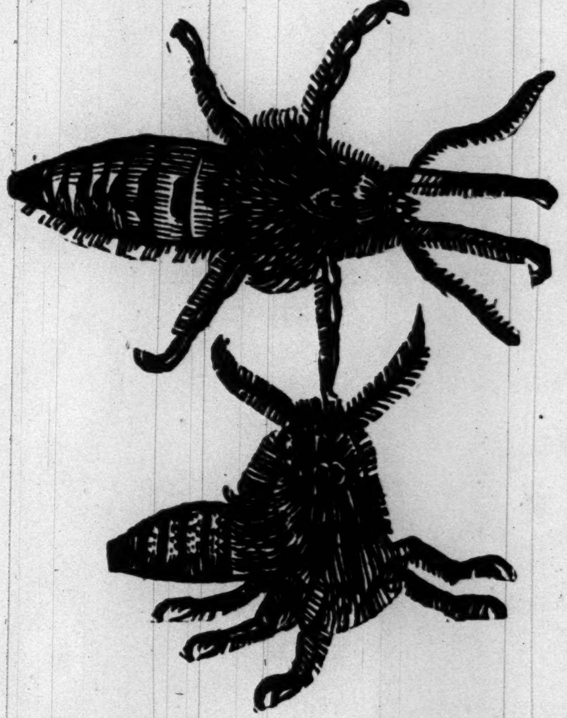
Alſo *Arnoldus* reckons Emmets egges amongſt ſuch things as take off hair; and commends water diſtilled from them againſt *Noli me tangere*, and all corroding Ulcers. *Albertus* thinks that drank with Wine, they do powerfully diſſipate winde. Reckon how many Warts you have, and take ſo many Ants, and bind them up in a thin cloth with a Snail, and bring all to aſhes and mingle it with Vinegar. Take off the head of a ſmall Ant, and bruiſe the body between your fingers, and anoint with it any impoſtumated tumour, and it will preſently ſink down. *Nonus.* Alſo God, that I may omit nothing, by the biting of Ants called *Solipugæ* (it is a kind of venomous Ant) drove the *Cynamolgi* (a ſlothful and idle people of *Æthiopia*) from their habitations, and deſtroyed them quite. *Pliny.* Some think they ſhould be called *Solifugæ*, but *Cicero* cals them *Solipugas.* I have a few things to ſpeak from Authors, as from *Anthologius, Apthonius, Natalis Comes* μυρμηκομυομαχία, and *Moichea* a witty Book of the ſame argument. And *Aratus, Herodotus, Strabo, Ariſtophanes, Raſis, Aggregator, Beroldus, Ryffius, Zetzes, Arnobius*, have by the by run over the natures of them, and their polite life. But becauſe they add but little to what hath been ſaid, I would no longer play the Piſmire, leſt ſeeming to be eloquent I might grow impertinent, and ſearching every creek too narrowly, I ſhould make more gaps. God grant that we whom God hath commanded to learn of Ants, when we are idle and mind nothing but our bellies, may by his good guiding learn of them, and he inſtructing us, we may perform our duty. It is a ſmall creature, and contemptible for its magnitude, yet we muſt know that goodneſs is not in greatneſs, but what is good is to be accounted great. I have ſaid.

CHAP. XVII.

Of the Gloworm, and the female Melo, and of Anthremus aud the field Chiſlep.

OFt-times thoſe that are of a great faction, and of noble deſcent, will ſcorn to marry with one of a common family. Yet the Poets write that *Jupiter* did not diſdain to imbrace ordinary women; and the Cicindela or Gloworm, and the *oyl Beetle* or *Meloe*, (though they are of the winged order) are not aſhamed to couple with others that want wings. And for as much as theſe females are endowed with the ſame force and dignity by nature, which is ſeen in males, I know not why they ſhould refuſe or be weary of their chance, and of their females, when as (if their wings be taken off) they agree in the ſame endowments of their minds and bodies. We ſpake abundantly in the firſt Book, concerning their form, figure, manners, virtues, uſe, when we ſpeak of their males that have wings; and though this Treaty is allotted for Inſects without wings, yet I would not artificially ſeparate the ſemales from their males, whereas naturall love hath from the beginning united them together.

I give you here the picture of *Anthrenus*, which the *Greeks* call *Anthrenus without wings*. Some conjecture that it is a creeping Hornet; others think it is a kind of the Spider *Phalangium*, which *Pliny* ſaith differs from a Hornet only in want of wings. It hath a crooked noſe, and forked, and the face looks upward. It perfectly repreſents that horned Owl that we ſaw in the low Countries. It hath black eyes, a breaſt very hairy and yellow, the feet are yellow at firſt, then brown; the reſt of the body hath 8 junctures that are yellow from red, which is much adorned by black ſpots on the back; from the top of the noſe, ſailyards or horns of a yellow colour grow forth; they are all hairy and flexible yet are they ſomething hard in feeling. He bites ſo that it is hard to cure it, yet it ſeems not to be ſo deadly as the biting of the Phalangium, nor is it yet ſo gentle but that the venom of it exceeds the Hornets. It hereafter I can diſcover any thing more concerning the nature of this little creature, the conditions and uſe of it, I ſhall willingly do it for the publick good; for far be it from me to conceal any thing that may make for the advancement of Learning.



From the ſimilitude this Inſect hath with a *Chiſlep*, we call it the field *Chiſlep*; for it is found in Corn fields; it differs from the reſt only in the number of its feet, (for it hath but ſix feet that are very ſmall and black) The neck of it is very ſhort, the body ſomething broad and compact, the tail ſomewhat painted. *Pennius* ſaw one in *July* about *Colcheſter*, or elſe he never ſaw it. What Phyſicall uſe it hath it is yet unknown to us.

CHAP. XVIII.

Of Mineral Worms with ſix feet.

IN *Pennius* his papers concerning the nature of Wormes, I did for a time wonder at his opinion, when he ſpake of Wormes in ſtones, and he averred that he ſaw little ones with ſix feet in old rotten ſtones. For I had received from all Philoſophers, that all things that are very bitter, ſalt, ſowre, ſharp, oyly, hot, cold, ſolid, hard, though they may corrupt in time, yet they will breed no worms, and therefore *Theophraſtus* cals them ἄζωα, not that they want life, but becauſe they breed no living creatures. I began to weigh the matter narrowly, and to put into an equall ballance, without fraud, all their opinions; at laſt I found that our Anceſters were here and there moſt foully deceived, and I aſcribe more to mine and *Pennius* his eyes, then to all their words. Tell me in good earneſt, is there any thing more bitter then Gall or Agarick, ſalter then the Sea, more tart then Leaven, more ſowre then Vinegar, more hot then fire, or more pure and cold then Snow congealed? yet certain it is, that Worms breed out of all theſe: and it ſhall appear ſufficiently by the ſequell of the ſtory, that Worms are bred out of ſtones, neither drineſſe, nor ſolidity, nor coldneſs nor want of heat or moiſture can hinder it: Nor will I allow of that, *That Nature produceth living creatures by a mixture of heat and moiſture, and moiſture is alwayes as the matter for heat to make a concoction of.* For not only where moiſture affords matter, and heat doth manifeſtly concoct it, are living creatures breed; but there alſo, (that we may not ſeem to ſet bounds to the power of God) where we ſee with our eyes that there is neither of theſe, nay where we may conceive that they are both abſent. The generation of the creature called *Pyrigonus* in the flames, of *Oripa* in the moſt frozen ſnow, will evidently prove this, and that was the cauſe that I ſooner ſubſcribed to the generation of Worms in ſtones. Moreover, they that with their graving tool, do make rough their Milſtones that are grown over ſmooth by uſing, find Worms oft-times bred in them, as the Brother of *Pennius* teſtified. *Fælix Platerus*, the worthy Preſident of the Phyſitians at *Baſil* reported to me, that he found a great live Toad in the middle of a hard ſtone that was ſaw'd in ſunder, that was bred there. And that excellent man *Zuingerus* relates the ſame thing of a Scorpion. And indeed theſe things had ſeemed to me incredible and monſtrous, had I not known the ſame thing to have happened in a Quarry of *William Cave* a Noble man of *Leiceſter*. And neither Philoſophy nor reaſon is contrary to this opinion, ſince in the earth, the mother of all things, there is all kind of heat and moiſture, and all kind of ſpirits; and (to uſe the words of a principall Phyſitian) all things ſeem almoſt to be full of all things. Nor can I ſee the reaſon why ſtones ſhould rather be bred in living Creatures, then living Creatures in ſtones; and as I ſhall eaſily grant that there are Minerall vapours in us, ſo I ſhall not fear but I may grant that there are animal ſpirits in them, and yet not wrong the truth. For they have inviſible and ſecret paſſages, nervs, veins, and turnings, whereby they either draw to them ſtrange moyſture, ſtrange ſeeds and different vapours, or elſe receive them being brought thither. Some ſay, that the marrow of a mans back will produce a moſt venemous Serpent. *Cardanus* ſaith that Worms will breed of the aſhes of Worms. Many Writers beſides *Pliny* report that Scorpions will breed from *Baſil* buried between Walls. All men do ſee that ſtones are bred in the air: And *Bonus Ferrarienſis* is not aſhamed to ſay that it hath rained Calfs, bloud and ſtones, which things though they ſound harſh, and not to be true, yet I dare not raſhly deny it, nor doth this at all impaire the opinion we hold concerning Worms bred in ſtones. And if the reaſon of this ſeem to ly ſo deep, that it is too difficult for us to ſearch out; you muſt think that truth lyeth ſo deep, and covered with ſo much darkneſſe, that it could not be found out till of late years. And in the generations of theſe things, (which God only knowes) truth will never ſhew it ſelf but by conjectures, ſimilitudes, collations, proportions, and obſervations. God doth here ſeem to ſcoffe and deride the arrogancy of worthleſſe men, that dare look aſquint into the work-houſe of Gods Creation, and are not afraid to inquire into the reaſons, and to ſearch and trie, and to attempt to imitate the works of God. I wiſh we could be admoniſhed either by the puniſhment of *Salmoneus*, or by the counſell of *Solomon*, to learn more modeſty: For that is the only way I know to the true knowledge of things, and the ſafeſt for us to walk in.

CHAP. XIX.

Of Worms in Vegetables, that have ſix feet, and firſt of Worms in trees.

WOrms in Vegetables are either Worms in trees, or in ſhrubs or Pulſe, or Corn, or Herbs. The Tree-worms ſome of them feed on the wood, ſome on the bark, ſome on the leaves, ſome on the fruit, and of all theſe we ſhall ſpeak in order. Thoſe that corrupt or ſpoyl the wood are of divers ſorts, for thoſe that breed in green and growing wood are called δῆκες, thoſe that breed in dry wood without ſap, are called ἔνξυλα, thoſe that are bred in ſolid and dry wood are called *Thripes*, thoſe that breed in hotter kindes of wood are called *Termites*, thoſe that breed in ſaw-duſt are called *Coſſi*, thoſe that breed in planks of Ships are properly called *Teredines*. Δῆκες it may be took their name from δάκνειν, for they do bite and eat living trees, ſo that oft times about their roots a great deal of powder and duſt may be ſeen, as if it came by ſawing. This Worm hath an ill-favoured head, of divers colours, covered with a covering, and he can put it forth and draw it in at pleaſure. His feet are on the hinder part toward his tayl, as the *Coſſi* have theirs on their breaſt, the reſt of the body is covered with a ſandy Coat, as it were their ſhell, and when they put that off they die, as Snails out of their ſhells.

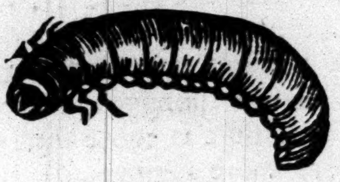
In that time which Nature hath appointed they grow into a ſheath like to an *Aurelia*, but what winged Creature cometh from that afterwards I could never yet obſerve. This is far greater than *Coſſus*, by reaſon of its unſatiable eating, and is not ſo dainty. The Wood-peckers and other Birds that ſpoyl the trees do make holes in the green trees, and by the ſound finding out the hollow places, they dig and pierce in there, till they come to thoſe devouring Worms, and they devour them. For they exceedingly delight in this kinde of meat, and for
Ἔνξυλον. love of it they will ſometimes ſpend whole dayes in digging of a tree. Ἔνξυλον is found in rotten and hollow wood, which will make no noiſe though you ſtrike it with a ſtaffe, it is very like to the *Ceraſtes* in *Theophraſtus*, and the *Pitiocampa* of the Phyſitians, but that it hath only three feet on both ſides. *Geſner* attributes to it a venemous and conſtant evil
Θρὶψ. ſmell, and a very corroding faculty. *Thripes* are thought to be named from *terendo* wearing, they are little Worms very frequent and common, their bodies are white, their heads black, or brown from red, with ſix very ſlender feet neer their neck, and blackiſh with a little red, like to the Worm in a Hazel-nut for the faſhion of their bodies, but they are ſhorter and ſmaller in the middle; they love no black wood, but are bred only in wood that is whitiſh, (as is the white ſap of Timber, Hazel-nut trees, Birch, Cinamon, the Plain-tree) and they penetrate into theſe when they are partly dry and ſolid, and drinking up the moyſture they have, they make them rotten. I paſſe over the conteſts between *Pliny*, *Heſichius*, *Theophraſtus*, *Plutarch*, concerning the ſignification of *Thrips*, whereof ſome are ſo negligent, ſome ſo curious in obſerving the properties of words, that in deſcribing them they are very obſcure, and as good as nothing. The Ancients uſed for Seals, the wood the *Thripes* had eaten, and chiefly the *Laconians*, as *Heſichius* teſtifieth. Whence *Lucian* in *Lexiph.* *I keep them under ſeals eaten by Thripes.* For theſe Worms as they eat forward, do engrave divers characters of herbs, and forms of living Creatures, and ſo exceed the Divine ſculpture of *Phidias*, *Praxiteles*, *Myrmecide*, *Bupalus*, *Sophroniſcus*, *Anthermus*. *Galen* ſpeaks of a man that made Rings, *l.* 17. *de uſu part.* who

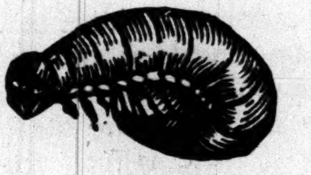
who on the broad part of a Ring engraved exactly, to a wonderfull demonſtration of his art, *Phaeton* with his Chariot and Horſes, caſt down headlong. But the Worm *Thrips* hath neither graving tool nor Iron inſtrument, but with his ſoft tooth engraves moſt ſolid Signets, and frames wonderfull pictures of all things ſometimes, only by the conduct of Nature. When woods are dryed by overmuch heat of the Sun, they produce and feed a Worm called *Termes*, which as *Servius* ſaith, being bred out of the very pith, at laſt conſumes its mother, and will not touch the hard barky ſubſtance. A very ungratefull little Creature, and ſo much worſe then other Worms, the more it is hurtfull to the heart and vital fountain of trees: For they live ſometimes when their bark and hard wood is devoured, but when the pith is waſted they die preſently, and Nature can never cure this wound. They are like the *Coſſi* in ſhape of body, but they are farre leſſe, and much ſofter. The name perchance comes from *Kis* a *Greek* word, as if you ſhould call it a Wood-weevel. For the Philoſopher ſaith that *Kis* is a little Creature bred in wood, like Worms bred in Corn; the *Engliſh* call them *Timber-worms*, becauſe they are ſeldome in any wood but that which is cut, and prepared for building. Their bodies are full of wrinkles, and hence ſome *Roman* Conſuls are called *Coſſi*. The greater *Coſſi* are almoſt as thick as the little finger, and as long as three fingers broad, of a whitiſh colour, almoſt like to the greater kinde of Catterpillers; wherefore the great ones are called by *Pliny* *Coſſi*. They have three feet on each ſide that are pendulous, not farre from their heads, ſhort, ſlender, and black. The body of them hath twelve rings, thoſe toward their tails are alwayes ſmaller and ſhining; their heads are ſomewhat thick, of a dark colour, and the noſe is ſmall, forked, ſharp as a Spear, black, with two plates in the forehead, neer the mouth there are ſmall hairs that are pointed, all the rings in the ſides are ſeverally marked with red points, a little hollow. It is a Creature that creeps very ſlowly, and the motion can hardly be perceived, wherefore *Feſtus* calls them *Coſſi*, great bellies, and ſluggiſh Creatures. He hath very little eyes, a round back, a belly ſomething hollow, of a wateriſh whitiſh colour; they ſeem to be fat, and very ſoft; they breed in wood newly cut, but before it ought to be. But if they have been long cut, and have loſt much of their moyſture, the ſmall *Coſſi* only breed in them, that differ from the great ones only in bigneſſe. The Ancients in *Pontus* and *Phrygia* (as *Pliny* and *Hieronymus* note) fed on theſe as the moſt dainty meat, and for that uſe they fatted them with meal, that they might be fed Worms. *Pliny* ſaith they ſerve alſo in phyſick; for they heal Ulcers, increaſe milk, and in Oyntments they cure creeping ſores, which *Albertus* alſo confirms. The *Teredines* have a very great head, conſidering their bodies, they gnaw with their teeth, and pierce into Okes, as you may know by the noyſe: But *Theophraſtus* thinks that theſe are only found in the ſea, and men think there is no other Worm can properly be called *Teredo*. We remember, that in the Ships of the *Venetians*, that had long ſtood in the Havens of *Alexandria*, that little ones were found, that were a cubit long, and as thick as a mans thumb, ſuch as that famous Sir *Francis Drake* another Sea *Neptune* brought home with him, in his Ship that had gone over the world, and was grown rotten and ſpongy. We ſaw other *Teredines* an inch long, like to Worms bred in flower; they have a red body, a yellow ſhining head, a little red, a forked mouth, from the lips whereof little thorny hairs come forth, they have three feet on each ſide, the inciſions of their backs are eleven, ſomething red: The reſt of the body is of a watry yellow, and ſhines, the greater they are the more darkly they ſhine, of a Crimſon colour, and the leſſer they are, the whiter they are. The *Italians* call them *Byſſam*, the Spaniards *Bromam*, from the eating of them, for they eat Ships, and penetrate them; whence *Ariſtophanes* in *Equitibus*, brings in a rotten Galley, ſpeaking thus, *I being eaten by the Teredines am accuſed for it.* And *Ovid* ſaith thus, 1. *de Ponto.* *It's eaten as a rotten Ship with Worms.* By *Pennius* his leave, the *Teredines* eat not only Ships, but beams of houſes, ſo the Scholiaſt upon *Homer* ſaith, (*Odyſſ.* 10.) The words are theſe. *Melampus* whoſe ears *Draco* had picked, that he might underſtand the voices of wilde beaſts, was caſt into priſon for the Oxen of *Iphicus* he had driven away; where when he underſtood by the ſpeech of the *Teredines*, that there was but little of a main beam left, he cauſed himſelf to be brought forth, leſt it ſhould fall and kill him; and whilſt he was lifted up by a man and a woman, and got forth, the houſe fell, and both of them were ſlayn. That is alſo apparent out of the chief of the *Latine* Comedians, when he brings in *Philolaches* a young man, ſpeaking to them in theſe words;

If tempeſt comes, Teredo enters,
And the rain at all adventures,
Gets in, and rots the walls and wood,
Makes work for Carpenters, that's good, &c.

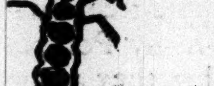
Termes.

Coſſus.





Theſe three were found in rotten logs.



I found this in the root of a great Mallow, it feeds on earth-worms, biting them continually, and ſucking them till they be dry.

Theſe hurt eſpecially great trees, as the Oak, the Pear-tree, the Apple-tree, the Cheſnut, the Larch, Walnut, Beech, the Medlar, the Elm, and broad leafed Willowes: in which cut unſeaſonably, or planted, a ſoft and ill fatty humour breeds (which Wood-men call, the ſap, and the white) which is the matter and nouriſhment of all the Teredines. Trees that are drier, more bitter, more oily and hard, are thought to be ſo much the freer from theſe Worms: yet ſome-times they will offer violence to the Cypreſs-tree, the Walnut, the Guaiacum, the Tieſe-tree, and to Ebony it ſelf. The manner of their breeding in wood is thus: Many are bred within, and do not come from without, and they eat up their original, that of what they were bred they may live by the ſame. The material and conjunct cauſe is the ſweet moiſture of wood that is fit for their nouriſhment, being corrupted, even as of ſweet flegm, worms are bred in the belly. Now that ſweet humour putrefies from a twofold cauſe, either by diſtemper, or ſolution of continuity. By diſtemper the quality is corrupted, and by cutting not only the inbred humour runs forth, but ſome ſtrange humour enters by rain and miſts, and corrupts the wood. In old ſpongy, and dry trees, by reaſon of age, are the greater Worms, both becauſe the radical moiſture is more diminiſhed, and becauſe the diſtemper, heat and moiſture that are ſtrangers, are more augmented: as oft-times old men are troubled with cruel ſcabs, and eating ſores, and Worms. Wood lying open to the Moon in the night, ſooner breeds Worms, becauſe of the over much moiſture of the air, and in the hotter Sun, from too much heat. Thoſe that breed within, breed at all times, but for thoſe that come from without, and are bred of the ſeed of Gnats and Flies; the Spring and Summer are the chief times for them; for in Winter they are frozen and dye. Alſo the climate and the ground are of great force, for the Iriſh wood ſeldome corrupts, there is ſuch vertue in the ground, and in *Arabia*, in the climate. Now we ſhall deſcribe the particulars.

Fig-tree Worms.

Of thoſe Worms that are in Fig-trees, ſome are bred of the trees themſelves, and another is bred withall, that is called *Ceraſtes.* For ſince the greateſt part of Worms do differ in ſhape and form one from another, yet the principal difference amongſt them is this, that thoſe which are bred in one kinde of tree or fruit, if they be tranſlated to another kinde, they will not live: yet men affirm that *Ceraſtes* is bred in the Olive-tree, and will breed in the Fig-tree; wherefore the Fig-tree hath its Worms, and ſends forth thoſe alſo that it receives from other trees: yet they are all like to *Ceraſtes*, and they make a ſmall ſhrill ſound. *Sypontinus* ſaith he hath two horns on his head: when he hath eaten the place ſo hollow that he can well turn himſelf, he begets another little creature, and changeth one kinde into another as Catterpillers do.

The Service tree is infeſted with red Worms, and hairy, and then it dyes. Alſo the Medlar-tree being old produceth ſuch Worms, but they are greater then in other trees, as *Theophraſtus* writes. The *ſap* produceth a Worm like to a *Thrips*, from whence Gnats and kindes of *Phaleuci* are bred, wilde Pear-tree Worms, ſome ſort of living Creatures that feed on wood, ſaith *Heſychius*, for they extremely hurt wilde Pear-trees. A little Worm in the Oke-like tree (*Suetonius* calls it *Galbus*) is wonderfull ſlender, whence the firſt of the *Sulpitii* was called *Galba*, from his extreme ſlenderneſſe. The Palm-tree produceth the *Carabus* (as *Heſychius* and *Ariſtotle* teſtifie) a Worm like to Sea-lobſters, having only ſix feet; by this means the *Carabick* Worm of *Heſychius* is known: *Theophraſtus* writes that they cut off the ſmall boughs of the Cinamon tree, two fingers length, and when they are green they ſow them up in Ox-hides; then they ſay that theſe boughs corrupting will breed Worms that eat the wood, and will by no means touch the bark, becauſe it is ſharp. This wood was ſeen in *Pennius* his houſe, eaten by a Worm that was of an Aſh-colour, it was not very hard, but had neither taſte nor ſmell; contrary to that ſome Portingal Merchants and Quackſalvers that are ignorant of ſimples affirm. The Worms called *Rauca*, breed in the root of the Oak, and hurt it. *Pliny* ſaith, an Olive-tree is ill planted where an Oake is dug up, for the Worm *Rauca* left in the roots of the Oak, creep into the roots of the Olive-tree, and endamage them. *Johannes de Chaul* affirms the ſame. The Ancients reckon up but few worms that feed on bark, except the Scolopendræ, Juli, and thoſe Moths that are like little Scorpions, whoſe nature we explained in the Chapter of the Scorpion. The Germans call theſe *Clopp*, they are not much greater than a Flea, of a red colour, with ten feet, they are frequent in the wood and houſes of the *Muſcovites* built of Pine-tree: in the day they feed on the moiſture of the wood that ſweats forth between the bark. In the night they creep out, and if they light upon men that are aſleep, they will ſuck out their bloud, biting painfully. The Worms called *Syrones* feed on the leaves and flowers of trees, how ſmall they are in thickneſs we may conjecture from this, that it creeps between the membranes of the thinneſt leaf, digging, and not hurting either outward skin. Next to the Worms in vinegar (ſaith *Joach. Camerarius*) I never ſaw a Worm ſo compact. The mines that it makes do ſometimes repreſent the moſt fine lines and fibres. They hurt exceedingly the leaves of the Cherry-tree, and the Apple-tree that are ſpotted; and when they are full they fall off; and they ſeem to be formed of many Pompion-ſeeds glewed broad waies together, but that they are far ſmaller. From theſe when they are dead another ſmall Inſect ariſeth, as they grew from another. Ἀκαρι, are like to Syrones, which the Engliſh, whether they breed in wood, or bark, leaf, or flower, or fruits of trees, as in Cheeſe or Wax, call *Mites*, that is very little ones, or *Alomes*; they differ from Syrones by this, that they ſeem to be made of many *Acari*. But the *Acarus* it ſelf is a round white ſix-footed little creature like to a little Lowſe, of almoſt no ſubſtance, that if you preſs it violently between your fingers and your thumb, it is ſo ſmall that you cannot feel it nor hurt it. *Antigonus* and *Ariſtotle* call it *Jupiters Butler*, it may be becauſe it will eat with its nib into the thickeſt Wine-cask. And certainly if there were not ſomething of God in it, and of divine vertue, how could we finde ſo great force in ſo little and almoſt no body? Alſo in the leaves of the Beech, little knots are found wherein there are ſmall Worms. The fruits of trees (as *Theophraſtus* ſaith) are ſometimes worm-eaten, when they are yet green, as we ſee in Services, Medlers, Pears and Apples. The Olive both in the skin and kernel hath Worms called κάρπαι, and it is a miſchief not to be neglected (ſaith *Theophraſtus*) for it will not only waſte all the oyl and the juice, but will eat up the ſtones that are ſo hard wherein the kernel is. Alſo little Worms are found in Galls that are eaten through, and they are bred in the very inmoſt pith, out of which afterwards ariſeth a kinde of Flies and Gnats, as *Valerandus Doures* an Apothecary of *Lions* teſtifieth. Moreover, in Oak Acorns, and ſpongy Apples, ſometimes Worms breed, and Aſtrologers preſage that year to be likely to produce a great famine and dearth. I need not contend that there are Worms in ſmall Nuts, for all men know it: eſpecially when the Summer is moiſt, and the wind blowes from the South. It is ſtrange that *Ringelbergius* writes, *lib. de experiment.* that theſe Worms may be fed to be as big as a Serpent, with ſheeps milk, yet *Cardanus* confirms the ſame, and ſhewes the way to feed them, *Lib. de rer. varietat.* There are little Worms bred in dry Figs like thoſe in Hazel-nuts, with a black head, and the reſt of the body is a whitiſh yellow, but they are ſmaller. *Bellonius* ſaith he found that Cedar as well as Pine Apples were ſubject to Worms. They are for thickneſs like to the female Glow-worm, a fingers breadth long, with a head like an Emmet, but more compact, with twelve inciſions; on each ſide it hath three feet near to the head, and two circular foreyards, with a thick belly, and a ſharp tail. Alſo in the hard and woody hulls of the Witch-tree, there is a broad ſeed, and oft-times eaten with Worms: and you ſhall finde there oft-times their very Aurelia's. Laſtly, no fruit can be named, but ſome Moth or Worm will infeſt it; even Manna it ſelf ſometimes (which the Poets feign to be the meat of the gods, the Scriptures maintain to be the meat of the ſons of God) corrupted and bred Worms, when contrary to Gods Word it was laid up till morning.

CHAP. XX.

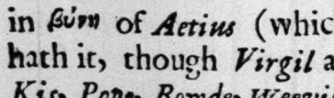
Of Worms of Fruits, Pulſe, Corn, Vines, Herbs.

UPon the lower Willow (eſpecially when ſwelling gals break forth) ſometimes there are found like to roſes, that are full of Worms, as it alſo happens in the leaves of the Maſtick-tree. *Quinqueranus* ſaith there are two kindes of ſcarlet Oak, one like a great tree, the other a ſmall ſhrub, about a foot and half high; it ſpreads very broad, and the leaves are ſmooth and ſhining, with a numerous thorny beard in the circumference riſing up with many ſiences like to the Roſe-buſh. Our Countreymen call it a Beech-tree, though it be nothing like to a Beech-tree. It growes on plain ground, but that ſtands high, with little dry hillocks, and unfruitfull: when the ſhrubs are bedewed with ſhowres in the midſt of the Spring, the Cochineal begins thus: When the lower ſtalk divides into two branches, and in the middle of theſe there comes forth a thing that is round, and of the colour and bigneſs of a Pear, they call this the Mother, becauſe from this the other grains proceed. Beſides every one of theſe ſhrubs hath commonly five Mothers, which at the beginning of Summer and in hot weather put forth a great company of little Worms, and they cleave in the top. A new off-ſpring of ſhoots growes up ſeverally on high of a white colour, that produce living creatures. But whereſoever they meet with the hollow places of the twig budding where the Worms are, they fall down, and become ~~as great~~ as Millet-ſeed. Then growing up more freely, the white colour changeth into aſh-colour, and then they appear no more living creatures, but again like unto Peaſe. Then thoſe grains being ripe gathered, now great with colour'd Worms: whileſt they are carried to the Merchants, the thin skin that goes about them breaks. The price of a pound of theſe Worms that are come forth of the skin is a gold noble; but that part which is yet in the skin, is ſold for a fourth part of it: the mean while the little Worms are as if they were dead, and move not. But when the ſeaſon of the year comes, they are haſtned by putting them in linnen cloths, and expoſing them to the Sun. Then but feeling the heat, they preſently creep forth, and ſtrive to fly away; but by the keeper of them, who watcheth them continually, they are ſhaked back into the middle of the linnen cloth till they die; whileſt this is doing, and for three daies after, there is ſo ſweet a ſmell and delightful, that no Civet, Musk, or Amber-greece, nor yet Lemon flowers can ſurpaſs it.

But if any grains eſcape from him that gathers them, they preſently ſend forth a numerous army of winged creatures into the air.

It was obſerved one year, that in a ſtony field in the Countrey by *Arles*, the profit of this increaſe was reckoned at 11000 crowns. So writes *Quinqueranus*. And *Carolus Cluſius* ſaith, that in his time, the ſame faſhion of gathering Cochineal was obſerv'd about *Narbon* in *France*, and alſo in *Spain*. For they have plats of ground in the open air provided for the purpoſe, with the ſides ſomething high, and they lay a linnen cloth upon them and pour forth the Cochineal upon that; the keepers ſtand ready about it with little wands continually when the Sun ſhines very hot, and they ſtrike the outſides of the linnen cloth, that they may drive back into the middle of the cloth theſe little Worms that haſten to come forth. But ***Petrus Bellonius*** *l.* 1. *obſerv. c.* 17. tels us of another manner of preparing Cochineal.

There is (ſaith he) in *Crete* a great increaſe of Cochineal: ſhepherds and boyes do gather it. They finde it in *June* upon a ſmall ſhrub, of a kinde of holm that bears Acorns ſticking to the ſtock of that ſhrub, without any ſtalk, and the colour is aſh-colour with white, but becauſe the leaves of that ſhrub are full of prickles like to Holly, the Shepherds have a ſtaffe in their left hands to preſs down the boughs, and hold them ſo; and in their right hands they have a pruning knife, wherewith the cut off the ſmal boughs, from which they pull off little round bladders as great as ſmal peaſe, on that ſide they grew to the wood they are chapt and open, full of little red creatures ſmaller than nits, that fly forth at that cleft, and leave the bladder empty. The boyes when they have gathered their Cochineal, bring it to the Treaſurer, and he gives them victuals for it. He parts theſe little creatures from the bladders with a ſieve, and then he takes them gently with the tops of his fingers, and makes bals of them as great as Hens eggs: for ſhould he preſs them too hard, they would turn to juice, and the colour be loſt: wherefore there are two kindes of dying ſtuffe, one of the pulp, another of the bladders, and becauſe the pulp is more uſefull for dying, the price of that is four times beyond the price of the bladders. *Geſner* alſo ſaw ſmall Worms of a yellow and red, upon the uppermoſt boughs of the Juniper-tree; in the ſponge of the Eglantine or wilde Roſe, white worms breed, from which *Ariſtotle* ſaith that Cantharides do come. *Geſner* ſaith, that after two moneths the ſponge being kept in a ſtove will ſend forth a great number of little live Worms. Alſo the Thorn and the Bramble, the Roſe, Heath, Broom, tree Trifoly, Raſpis, the Myrtle-tree, Capers, Buſh, the Gooſberry-buſh, the Palm-tree, the white Thorn, the Privet, Park-leaves, Licorice, and indeed every ſhrub, and under-ſhrub is eaten by Worms: nor could ***Palma Chriſti*** (which afforded ſhadow to *Ionas*, that divine Prophet, when he was very hot) eſcape this plague, as we finde it written. Alſo Pulſe, the gifts of *Ceres*, are (to uſe the Philoſophers word) moſt Worm-eaten, but how that comes to paſs is moſt uncertain: whether is it, as *Theophraſtus* ſeems to ſay, when the juice cannot be diffuſed, by reaſon of the great heat, and the foulneſs of them? or ſhould we rather ſay, that the dry part deſires the humour, but the humour flees from it as its contrary? So we ſee drops hanging on a dry wall: or whether the over great heat corrupts both the natural heat and moiſture contained within? That corruption comes that way, moſt ſickly *Æthiopia* can teſtifie. A little worm eats Beans, *Theophraſtus* cals it *Midas*, and *Heſychius* τρώγλος, τρώξ, and κυαμοτρώξ, is a worm breeding in Pulſe, but chiefly in Peaſe, and hath its name from eating: and ſuch a one breeds in chich Peaſon, after that the ſaltneſs of it is waſhed away with ſhowrs; as beſides the Scholiaſt upon *Heſiod*, *Phavorinus*, and *Theophraſtus* determine. They often breed in the ſweeter Pulſe, both by reaſon of the fitneſs of the nouriſhment, and the nature of the air fit to breed worms, and when they are bred they nouriſh them, and ſhew them forth. Worms bred in corn are generally called ψώμικες, which feed on the roots, ſtalks, reeds, and prickles of winter Wheat, Panick, Oats, Rice, Miller, Rie; others there are that feed upon Wheat-flour, as thoſe that are called *Farinarii*; others of that which is whole Wheat, not yet ground in a mill, as Weevils. The Engliſh call the *Farinarii Meal-worms*; they are like to ſhips worms, they have ſix feet, with a little ſhining red head, a round body, and divers coloured as the meal is: for the beſt and whiteſt meal breeds them white, the elder meal breeds them yellow, the lean meal full of bran hath dark colour'd. *Cardan* cals them Meal-moths, (but as it fals out frequently) not well conſidering of it. Thoſe that are fed with bran, it is wonderful how great they will grow, and from ten in a ſhort time you ſhall finde three hundred. They are found amongſt woollen weavers at all times almoſt; for they make a mixture of Bran, Vinegar, and Hogs greaſe, from whence they breed abundantly. The Weevil is the bane of whole Wheat, be it raw or torrefied (as in βύνη of *Aetius* (which the Engliſh call *Mault*, the mother of Ale.) For ſo my Comedian hath it, though *Virgil* and *Varro* call it *Gurgulio* or *Curgulio*. The Engliſh call the Wheat-worm *Kis*, *Pope*, *Bowde*, *Weevil*, and *Wibil*, as if you ſhould ſay double Bill, yet it is indeed a living creature with three beaks. It deſtroyes wheat chiefly, yet it will deſtroy any other grain, leaving nothing but the hull, and the thin skin. For as *Virgil* hath it in his *Georgicks*:



The Weevil ſpoils a mighty heap of corn.

It is formed like a ſmall Beetle, it hath a beck proper to it ſelf, and with three forks. Some of them are with black bodies, others with brown, but others that are the greater are greeniſh, and the middle of their body very ſmall. This creature is ſo dry, that with the leaſt touch it will turn to duſt. It is bred chiefly in the Spring, ſome few daies before that Bees ſwarm. *Theophraſtus* ſaith they breed of one part of the grain, and the other part they feed on. Our Countreymen finde by experience that this wheat-worm will lay eggs in chinks of wals, and under the tyles, and from thence by procreation comes a new off-ſpring. They ſpeak of three wonders concerning theſe little creatures. Firſt, that though they be but few at firſt, yet in a ſhort time they will increaſe infinitely. Secondly, that they will lie between the tyles and in chinks of wals without any meat at leaſt three years. Thirdly, that if they be put into water three daies with Wheat or Barly, when they are taken forth they wil live again. Our Countreyman *Siliardus* (a diligent obſerver of Nature) deſcribes the propagation of Weevils thus: when Ants have eaten off the top of the ear of wheat, the Weevill goes up, and in that little hole he laies one or two eggs (but ſeldom three) ſo great as a grain of Millet, long and yellow, full of liquid yellow matter; from this afterwards proceedeth another Weevill. This little Inſect hath both ſexes, for they copulate before they do this miſchief. *Petrus Comeſtor* affirms that they proceed from Beans corrupted, to whom no man but *Guillerinus de Conchis* aſſents, leſt they ſhould falſly confound a *Weevil* with *Midas*, or Bean-worm. Beſide this Weevil commonly known, *Joach. Camerarius* ſent two others to *Pennius* out of the barns of *Germany*, with a far greater belly; one of them was a kinde of aſh-colour, and the other green. Alſo *Scaliger* ſaith there is in wheat a worm without a beck, which perhaps *Pliny* meant by his corn-beetle. To this I will refer a certain little creature that is frequent in barns, that creeps with ſix feet, and with two ſhort ſail-yards it tries its way, it is ſpotted on the middle of its back and ſides, and the reſt of the body is black, which I therefore call the ſpotted Weevil. This creature doth no great harm to corn, becauſe it is ſtill alone, and ſeldom two of them are found in one barn. About *Lentzbourg*, a Town of *Germany*, a certain inſect is found in the fields, which ſome call *Vlput*, ſome *Korn-worm*, others *Kornevele*. It is ſaid to be ſo venomous and hurtful, that the Husbandmen will leave their plough when they meet it, and run after it to kill it. It is black from a little red, dwelling amongſt wheat and eating up the corn: worms bred in Vines, the skarlet Oak worms are like them, ſuch as *Braſſavolus* doth ſtrongly maintain and think that they are bred on the roots of Pimpernel. Amongſt herbs, both for phyſick, and for meat, the Violet, Radiſh, Rue, Baſil, and many more are moleſted with worms. The worms in Violets are very ſmall and black, and run very faſt, as *Jacobus Garetus* a moſt diligent Apothecary, and very famous in the knowledge of ſimples as there are not many, affirms, out of the root of the Hartichoak a worm comes, that hath ſix feet, like to a Caterpiller, and whitiſh, with a reddiſh black head; where it bites the roots of Hartichoaks it makes them black, and at laſt kils them. The Radiſh produceth the like. *Cardan* ſaith, men report that there is a worm found in the leaves of Rue, and it will grow wonderful great, as the Hazel-nut worm will do if it be fed with ſheeps milk. A little worm that is the childe of the dew, and a gueſt in baſil with a body almoſt upright, he ſticks faſt by his hinder feet, whileſt he takes hold with his forefeet. Sugar is made of the Sugar cane, the ſweeteſt of all Salts, and as the common ſort of Phyſicians ſuppoſe, it is altogether free from corruption. Yet under the authority of *Scaliger*, I aſſert that a little worm is bred in Sugar, long, black as a flea, and (if you take away his beck) like to a Weevil; and therefore we may juſtly call it a Sugar-worm. *Bellonius* alſo makes mention of this. But that Inſect which the Germans call *Mayen Wormlen* ſeems to breed very ſeldom, ſaith *Camerarius*. For in the moneth of *May* dewes often fall that are very unhealthful, and if they fall upon the leaves of Hops, they turn to little living creatures called *Hoppen*. Amongſt thouſands of theſe you ſhall ſometimes ſee one far greater than the reſt (though it is ſcarſe greater than a fat lowſe) it hath yellow circles about the belly, the back is chamfer'd, the tail is ſomewhat long, the colour of the body for the greateſt part is blackiſh. This when it wants aliment from dew, devours one by one all of his own kinde, ever beginning with that is next to him: he changeth his skin like to Silk-worms: laſtly, when he is almoſt tranſparent, he putting off his laſt skin, he hangs by his head and feet by a kinde of thin bird-lime, by ſome leaf, and ſo he dies: why may we not call this worm the Hop-worm? In the ſtalk of the Aſphodil, a worm is bred of a clear colour when the herb begins to flower, out of his ſhoulders wings grow by degrees, and then when he can fly, he forſakes his habitation. In the ſwoln joynts of the codded Arſmart, and the wilde Thiſtle, little white worms breed, as yellow ones do in the purple flowers of the baſtard wilde Chervil, and red ones in the root of Pimpernel. I often have ſeen in the female Smallage downy worms; in Muſhroms and Coleworts, ſmall black worms; in the root of Acorus, white ones: in the root of Elecampane whileſt it is green and growing, white worms breed in ten or eleven joynts that are viſible, that are as thick as a Gooſquil, with a lit-black head, and ſix ſhort feet, and the body all black. The Kings of the *Indians*, as *Ælian* teſtifieth, uſe to eat for their ſecond courſe, a worm found in a certain plant, when it is roſted at the fire, and they commend it for the daintieſt and ſweeteſt meat. In the head or ſtalk of the Fullers Teaſil, we have ſeen a worm very ſmall, with a little head, and ſix black feet, with ten or eleven inciſions. Firſt it eats up the ſpongy pith of the ſtalk, and when that fails it dies for want of food. It is eaſily found at the beginning of *October*, though *Marcellus* upon *Dioſcorides*, doth moſt ſhamefully deny it. If I am not deceived, this is that worm the Ancients call *Tatinum*. *Xenocrates* cals a plant like to double Camomel *Galedragon*, (ſaith *Pliny*) it hath a ſtalk like Fennel Gigant, with a tall and prickly head, and like to an egg in form: in this with age they ſay little worms breed, that are good againſt the tooth-ach.

In the roots of white Thiſtle (which plant is luxuriant in the high mountains of *Savoy*) there is a little worm found, breeding in ſome, in others it growes great, and in moſt of them it grows to have wings and ready to fly, it is white, and hath ſome joynts that it is divided by, and very black ſhining eyes. It may be there is great uſe in phyſick of a little worm bred in wilde Tanſey: but I leave the enquiry of that to thoſe that are curious in the ſecrets of Nature.

CHAP. XXI.

Concerning the uſe of Worms that breed in Minerals and Vegetables, and the way to deſtroy them.

Some think that worms that are bred in ſtones, (whereof we ſpeak) thoſe I mean that are as great as Hand-worms, beaten into powder with the ſtone, are good to cure Ulcers. Alſo *Marcellus* witneſſeth that theſe bruiſed and given with three Cyathi of water, will break and drive forth the Stone by urine. The Ancients uſed the more ſolid wood that the *Thripes* had carved with their teeth for Seals, and Antiquity aſcribeth the invention of that to *Hercules.* In old trees red worms breed, whereof *Serenus* writes thus.

From an old tree do but red worms procure,
Bruiſe them with Oyl, and dropt in warm, be ſure,
For pains oth' ears this is the ſafeſt cure.

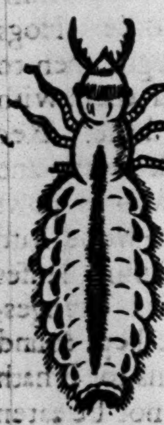
Galen out of *Apollonius* ſubſcribes this remedy. Worms that breed in hollow and rotten trees heal ſecret Ulcers and all ſymptomes of Ulcers, and diſeaſes of the head; alſo being burnt and powdered with their weight of dry Dill, they cure Cankers. *Marcellus.* But *Aetius* addes three Worms bred of wood to an Oyntment againſt the *Elephantiaſis,* which he learned of a certain Phyſitian that took his oath of ſecrecy. The rottenneſſe that is made by their biting dries without pain, and is profitable for many things. *Galen Eupor.* 3 *c.* 7. commends this kinde of powder, againſt knobs, clifts, and ſores of the Fundament. Take Orpiment in pieces three ounces, rotten wood of an Oke four ounces, make a fine powder, then foment the place affected, firſt with the warm urine of a young boy, and afterwards ſtrew on this powder. But the *Coſſi* are not only food for the Inhabitants of *Pontus* and *Phrygia,* and they delight much in them (as Worms in Cheeſe are to the *Germans*) but they alſo cure Ulcers, increaſe milk, and as *Pliny* ſaith, when they are burnt to aſhes they cure *creeping ſores.* The Worm in Fullers Teazil put into a *hollow tooth,* will give wonderfull eaſe. *Pliny.* And if it be hanged in a bladder about the neck and arms, it will cure *Quartane* Agues. *Dioſcorides.* One *Samuel Quickelbergius* a learned young man, in an Epiſtle he writ to D. *Geſner,* hath theſe words, Saith he, as I was gathering of Simples, a certain old man came unto me whilſt I ſought for a little Worm in the head of the Fullers Teazill, and he ſaid unto me, O thou happy young man, if thou didſt but certainly know the ſecret vertues of that little Worm, which are many and great. And when I intreated him, that he would acquaint me with them, he held his peace, and by no intreaty could I obtain it of him. *Pliny* aſſerts that the Colewort Catterpillars being but touched with it will fall and die. The Worms of *Galedracon* (which plant ſome men confound with Fullers Teazil) being put into a box, and bound with bread to the arm on that ſide the tooth akes, will wonderfully remove the pain, ſaith *Xenocrates.* The Worms of the Eglantine will cauſe ſleep, and therefore ſome *Germans* call them *Schlaſoirs*: They are applyed alive to a Felon (but alwayes their number muſt be odde) and they do certainly cure it ſaith *Quickelbergius.* A little Worm found in the herb *Carduus,* bound up in a piece of Skarlet and hang'd about the neck, will cure the tooth-ache. *Marcellus.* The Worms that are found in the root of Pimpernel, make a moſt incomparable purple colour, (*Geſner*) that I wonder the Ancients ſaid nothing of them. All little Worms found in prickly herbs, if any meat ſtick in the narrow paſſage of the throat of children, will preſently help them. *Pliny.* Rub a faulty tooth with the Worms in Coleworts, and it will in a few dayes fall forth it ſelf. Meal-worms are good and ſeem to be bred to catch black-heads, and Nightingales, and to feed them; nor is there in winter wholeſomer meat for them: for they purge, heat, and nouriſh alſo, thoſe Birds that have but a thin nutriment to preſerve them. I ſpake before of the profitableneſſe of the Cochineel Worms. *Braſſavolus* affirms the ſame of Vine-worms, but how rightly let others judge; but they are not only good for dying, but neceſſary in Phyſick, for they both binde and dry, and ſcowr without biting, and incarnate alſo, they cure rheumatick eyes, mingled with Pigeons bloud, they help ſuffuſions of the eyes, they cure Dyſenteries, they help hard labour in Childe-birth, and debility, they cure Melancholy, fear, Epilepſies, they provoke urine and the terms, they heat the Matrix, they diſſolve water and choler, they abate the panting of the heart, and upon that ſcore they are put into Confection of *Alkermes,* and are the Baſis thereof. *Dioſcor. Avicen, Kiranides.* I ſay nothing, how greedily Sparrows, Wood-peckers, Hens, Wood-cocks, Snipes, the *Pardus,* a Black-bird, Larks, Gnat-ſnappers, Reed-ſparrows, and many other birds, that are good phyſick, or elſe meat for us, do feed on the Worms of trees and herbs. Now ſince God hath mingled conveniences and inconveniences together, both to rouſe up our providentiall prudence, and to puniſh us with puniſhments due to our ſins, how both of theſe may be prevented I ſhall ſhew briefly. *Jonas* being cheriſhed under the ſhadow of the Gourd, he thought it ſafe and happy to be ſo, when the heat was ſo vehement. But God ſent a worm and took that from him, both to try his patience, and demonſtrate his frailty. There was an Arch-biſhop of *Yorke*, whoſe ſurname was *Grey*, as our Hiſtories relate, when he had abundance of all Corn in the time of great ſcarcity, yet he refuſed to let the poor have victuals either for money or intreaty. A little after this his barns that were full of Corn, were ſo exhauſted with Weevils, that they left not one whole grain of Wheat or Barley: Even as *Solomon* ſaid, *He that boards up his Corn the people ſhall curſe him, but bleſſing ſhall be on the head of him that ſelleth it.* So God, that he may call forth a ſluggiſh father of a family, ſends the Moths and Worms into his Orchards and fields, both to make him laborious by this means, and alſo to teach him to make uſe of ſuch helps and means that God offers to him. Our Anceſtors have delivered by tradition many of theſe: But becauſe *Cato*, *Vitruvius*, *Pliny*, *Palladius*, *Theophraſtus*, *Columella*, *Varro*, *Virgil*, and many of thoſe that were Princes in husbandry, have abundantly ſet down theſe things, we ſhall only give you a ſmack of them here, becauſe others have given a full draught. That trees may not be eaten with worms, plant them in the new of the Moon, and cut them down between the new and old Moon in the conjunction. Alſo anoynt them with Tarre, and often wet them with the lees of Oyl. Alſo keep them under Covert, every where, that they may not ſtand expoſed either to great heat of the ſun or tempeſts of weather. Alſo that trees may not grow worm-eaten, anoynt their roots before the firſt planting of them, and then afterwards moyſten their roots with mans urine and a third part of the ſtrongeſt vinegar. Some ſteep a long while Squills with Lupins, and they ſprinkle the places that are worm-eaten or preſſe out their liquor with a Sponge, or they beſmear the ſtock of the tree till it be very wet, and they powr into the holes Bitumen mingled with Oyl. Others ſprinkle on quick-lime, others Oyl-lees and old piſſe, others Hogs or Dogs dung ſteept in Aſſes piſſe, the roots being firſt uncovered. *Democritus* taught men to bruiſe *Terra Lemnia* with water, (it may be he meant Carpenters red) and to ſmear them with that: Some pick out the Worm with a braſſe pin and put Cow-dung over the hole. Red hairy Worms ſearch to the inward pith, if you can draw theſe forth and not break them, and burn them hard by, it is reported that all the reſt will dy with it. It is good alſo to powr often upon the roots, Bulls gall, and lees of Oyl: To plant Squills, Rue, Worm-wood hard by, to make a menſtruous woman paſſe over the place often, to ſmear the pruning knifes with Oyl of *Cantharides*, and to avoid lean and dry ground. By theſe remedies Oranges, Peaches, Pomegranates, Quinces, Pears, Apples, Olives, and Okes, and other trees are kept ſound a long time, and almoſt free from Worms. Aſhes laid to fig-trees, drive away Worms, for it hath the force of ſalt, though not ſo ſtrong. The ſeeds of Fig-trees or kernels will not be eaten by Worms, if a ſlip of the Maſtick tree or Turpentine tree be ſet by them. As for Vines, *Aetius* bids us to ſprinkle Sea-cole with water, and caſt upon the place in the Spring-time, and then to ſmear the roots of the Vines that begin to bud. For if you ſmear the pruning knife with Goats ſuet or Frogs bloud, or do but anoynt the Whet-ſtone with it, worms will not breed there. *Africanus* ſaith that the tears of the Vine mingled with the aſhes of the Vine-ſtalks, and put on the root with Wine, it will do as much. Laſtly they are killed with a fume of Oxe-dung, Harts-horn, Goats-clawes, Lilly-roots, ſhavings of Ivory, womens hair. The herb Pionie or Thorow-wax, planted where Vines grow, drive away worms. Some there are that boyl *Aſſa fœtida*, and Lazerwort in Oyl, and anoynt the ſtocks of Vines with it (beginning at the root) or with Garlick bruiſed. The ſeeds that muſt be ſowed, ſhould be kept in a Tortoiſe-ſhell, or Mints are to be ſowed amongſt Pot-herbs, but chiefly Tares. The bruiſed leaves of the Cypreſſe-tree mingled with them, will avail much. *Aggregator*. And *Palladius* ſaith that all ſeeds will be free from worms, if a little before you ſow them you ſoke them in the juice of wilde Cucumbers. *Pliny* bids to prepare ſeeds of Lupins before you ſow them, in the ſmoke or ſome hot place, becauſe in a moyſt place the worms will eat up the middle of it, and make it barren. *Varro* ſaith that worms will never touch Onyons that are ſet with ſalt and Vinegar. Moreover, the ſeeds of all pot-herbs wet with the juice of Houſleek, will admit of no worms. Againſt Weevils, that are a certain plague to Corn, it is good to dawb the walls with lime and hair both within and without. Others do for two dayes ſteep the fruit and leaves of wilde Cucumbers in lime water, and with ſand they mould it up like plaiſter, and with that they plaiſter the inſides of their Granaries; though *Pliny* writes that Quick-lime is a very great enemy to Corn. Some put beaſts piſſe to the lime, ſome worm-wood, juice of great Houſleek, and hops, others powr on the ground Oyl-lees, Herring pickle, and the decoction of Flea-bane. *Strabo* mingles Marle. Others report that often fanning of wheat keeps it ſafe from weevils; but *Columella* denies this to be true. *Cato lib. de re ruſtica*, commends Clay mingled with Oyl-lees, and he would have the Granary to be fenced with that. *Varro* uſeth it almoſt the very ſame way, but he commends Clay with Oyl-lees, Maple tree and Corn mingled together. Our *Engliſh* men do deceive and deſtroy them divers wayes. Some in the middle of the heap of Corn do ſo place braſſe Veſſels half full of hot water, that the Corn may lie almoſt up to the mouth brims of the Veſſels; for thus they think the weevils are taken or deſtroyed.

Some ſhut up an Ant-hill and Ants together in a bag, and after that they powr it forth in a corner of the granary: thus in ten daies will the Ants deſtroy all the Weevils, and when they are killed, they take them and carry them forth, that are going back to their former houſe. Alſo they uſe to put into that place young Chickens that will ſoon eat up all the weevils. Some ſprinkle on ſalt water where Garlick hath been inſuſed, or Hops, Elder-leaves, worm-wood, Rue, Nigella ſeed, wilde Mints, Walnut leaves, Savoury, Lavender, Southern-wood, Flea-wort, Bean Trifoly, boyld in Vinegar of Squills. They are much delighted with Navew ſeeds, for the ſweetneſſe of them, that they will leave the Corn for that, and eat till they ſwell and break in ſunder. Though ſome may think theſe things too much, and beſide my purpoſe, yet *Hippocrates* proves that they are fit for Philoſophers and Phyſitians (*Epiſtola ad Cratevam*) not only to know the art, to deſcribe, gather, lay up, and uſe Simples, but alſo in preſerving them, and preparing them, and to purge them from inbred or inflicted venome, and from putrefaction and worms.

CHAP. XXII.

Of the ſix footed Worms of living Creatures, and first of Lice in men.

A Lowſe.



Since God hath given the principality to man amongſt living Creatures, we will begin with him. In the firſt beginning whileſt man was in his innocency, and free from wickedneſſe, he was ſubject to no corruption and filth, but when he was ſeduced by the wickedneſſe of that great and cunning deceiver, and proudly affected to know as much as God knew, God humbled him with divers diſeaſes, and divers ſorts of Worms, with Lice, Hand-worms, Belly-worms, others call *Termites*, ſmall Nits, and Acares: *Acaſtus*, *Alcmaon*, *Phericides*, *Pharaoh* King of *Egypt*, *Caſſander* ſon of *Antipater*, *Democratus*, *Caliſthenes*, *Olynthius*, *Scylla* the Dictator, and that river of Eloquence *Herod*, knew it to be true that I write, who periſhing with a Lowſy diſeaſe, uſed Phyſicks and Baths in vain, for they died miſerably of them. Some alſo write that *Plato* (being elevated perhaps more then he ought, and ſo wiſe that he diſdained others) died of this diſeaſe, whence grew the Proverb, *Platoes Lice*. I ſhall ſay nothing of *Henry* the ſecond a moſt cruel Tyrant, and *Theodorus* that propagated *Arianiſme*, two Kings of the *Vandals*: I let paſſe *Arnulphus* an Emperour, and an effeminate *Sodomite*, and *Caſar Maximus* a filthy Pander, all conſumed with Lice, who found that when God commands, the leaſt and moſt contemptible Creature hath force enough to deſtroy ſinners, and with *Pharaoh* they were compelled to acknowledge this to be the finger of God.

The Name.

The *Hebrewes* call a Lowſe *Kiſim*, and *Chinnam*, the *Greeks* φθεῖρες, βερῦκαι, ἴφιον, κάρφαι, πίθηκοι, ἴγγρεον, the Italians *Pidocchio*, the Spaniards *Piecio*, the French *Pou*, the Germans *Luſſ*, the Engliſh *Lowſe*. The *Latines* call it *Pes*, as we read in *Plautus in Curcul. Wherefore you are a kinde of Lions, and like Flies, Gnats, Lice and Fleas, you trouble all men, and are hated by all, but never do any good.* And *Livy* to *Gladiolus*, *Are they Fleas, Wood-lice, or Lice? Anſwer me. And* Lucilius *when he ſees me, he ſcratcheth his head, and picks Lice. Feſtus.* Where ſtill a Lowſe is called *Pes*. It is a beaſtly Creature, and known better in Innes and Armies then it is wellcome. The profit it bringeth, *Achilles* ſheweth, *Iliad* 1. in theſe words: *I make no more of him then I doe of a Lowſe*; as we have an Engliſh Proverb of a poor man, *He is not worth a Lowſe*. The Lice that trouble men are either tame or wilde ones, thoſe the *Engliſh* call *Lice*, and theſe *Crab-lice*; the North *Engliſh* call them *Pert-lice*, that is a petulant Lowſe, comprehending both kindes, it is a certain ſign of miſery, and is ſometimes the inevitable

Deſcription of their differences.

ſcourge of God. The tame ones that breed of corrupt bloud, are leſſe, and reddiſh, from Fleame white, from melancholy and aduſt humours, black, and from mixt humours they are of divers colours, as *Petrus Gregorius* noted *l.* 33. If you rub them gently between your fingers you ſhall ſee them four-ſquare, and ſomething harder than Fleas, whence in the dark when you take them you may eaſily finde the difference. They that breed in the head are bigger, longer, blacker and ſwifter, thoſe that breed in the body are fatter, bigger bellies, ſlower, darkiſh white, and marked with blackiſh ſtreaks. Some conſtantly affirm, that in *May* they have ſeen Lice with wings, and that the Locuſt-eaters of *Lybia*, when they have fed too plentifully of them, after they come to be forty years old, will die with theſe Lice, as *Diodorus Siculus* ſaith confidently, 4. *Antiquitat.* *Agatharcides* ſpeaks of theſe Lice, but he ſaith they are like to Ticks. They chiefly faſten on the chin, eye-browes, and the privities full of hair, the groin, and the arm-pits, their body is more compact, their nib is ſharper, they bite more, and tickle leſſe. For Tykes will ſometime enter deep into the skin with their noſe, that you can hardly pull them out but with the loſſe of their heads, and they ſeldome wander, but they bite cruelly, and make themſelves a hollow place, and there they ſtand faſt. Some call theſe Lice in *Latine*, *Cicci*, ſome mens Tikes, others Vultures lice: *Ariſtotle* calls them wilde Lice, *Hiſt. Animal. l.* 5. *c.* 31. it is harder then a tame Lowſe, and is more hardly removed from the place it bites. Our *French* men, ſaith *Joubertus*, call them *Morpions*, and *Patte*, the *Germans* call them *Feultz leuſs*, *Gordonius Peſſolatas*: they ſtick very faſt to the skin, or bite through the *cuticula*; they are of a dryer matter, and that which is half roſted, ſo they are not ſo ſwolne, but they are more compact. The *Arabians* call them *Alcaraa*, *Guardam*, *Faed*, and with an Article, *Alguardam*, and *Alfaed*, as *Ingraſſias* obſerved. Alſo in the Synonymaes *contr. Rhaſis*, they are called *Motes* and *Immores*. The *Italians* call theſe *Piatolos*, and *Chacillos*, and *Albenzoar Platulas*. All Lice breed from humours, fleſh, fat, ſweat corrupted, and differ exceedingly in reſpect of the place and humour. For thoſe that breed of mans bloud will die if you ſmeare them with the bloud of other Creatures. Alſo they that breed in a mans head will hardly live, or not long in his body. So the wilde Lice bred in the privities will die in the head. Thoſe that breed of fleſh putrefied, ſuch as often will abound in Ulcers ill cured, will not be fed with the excrements of the skin, (ſaith *Hieron. Mercurialis, l. 1. c. 7. de morb. cut.*) The opinions of Authors are divers concerning the generation of this diſeaſe: *Ariſtotle 5. hiſt. anim. c.* 31. thinks that Lice breed of fleſh corrupted, in which place he affirms three things. Firſt, that they that breed Lice, have ſome pulſes ariſing before in their skin, which if a man prick, the Lice will appear. Then that this diſeaſe come not, but by moyſt humours, or to ſuch that have been troubled with a long and moyſt diſeaſe. Laſtly, that all Birds, Fiſh, Four-footed beaſts, are moleſted with this diſeaſe, except an Aſſe. The firſt opinion pleaſeth me not: Firſt becauſe in the skin of the head Lice breed moſt commonly, where there is the leaſt portion of fleſh. And again, if they ſhould breed only of corrupt fleſh, the heads of young children that are almoſt allwayes full of them would be ſo wanting of fleſh, that it would almoſt waſt all away. Further, in Conſumptions, where the body nouriſheth not, and is wholly conſumed almoſt, they abound moſt commonly, where all the fleſh is ſo dry, that there is no moyſture almoſt to breed Lice. *Theophraſtus* is of another minde from *Ariſtotle*, affirming that Lice breed of corrupt putrefied bloud; which *Hieron. Mercurialct* in the quoted place labours to infringe by theſe reaſons. Firſt becauſe in Feavers that grow from putrefaction of bloud, there is ſeen no ſuch increaſe of Lice. Secondly, if they ſhould be made from bloud, ſome of them at leaſt would be of a red ſanguine colour, and teſtifie from whence they were bred, as other things doe, but we ſee no ſuch, therefore, *&c.* In which place this otherwiſe very learned man, ſeems to beg his principle. For in the heads of our children we oft times finde very red Lice, and in thoſe that are upon recovery of a putrid Synochus, we finde that oft times many red and mingled coloured Lice breed. *Galen*, 1. *de comp. med. ſec. loc. c.* 7. and *Avicenna l. 4. ſen. 7. tract.* 5. *c.* 26. aſcribe them to ſome other cauſe, and as *Mercurialis* thinks, that their opinion is the trueſt of all, namely, that they breed from the hot excrements of the ſecond and third concoction putrefied, nor ſharp, nor bad. To underſtand rightly their opinion, we muſt know, that when bloud is changed into the ſubſtance of the Limbs, many kindes of excrements are produced, whereof ſome are diſſolved by inſenſible tranſpiration, others by ſweat, others turn to filth, others ſtay in the skin: Thoſe that are retained in the upper skin, make dandruf, if they ſtay in the depth of the skin, or are bad and ſharp, they cauſe ſore heads. But ſince I have obſerved that in ſome that were in a Conſumption uncurable, where the ſharpneſſe of the humour eats up the very roots of the hairs, Lice come forth abundantly, why may I not think by their leave that they may breed at firſt from ſharp humours? *Scaliger* would prove that Lice breed not from putrid humours, becauſe herbs grow from the ſeed without putrefaction: for he thinks the principle is altered, but he beleeves not it can be corrupted. But by his leave I muſt ſay that *Scaliger* or the Apoſtle muſt be miſtaken: For ſo St. *Paul*, 1 Cor. 15. *That which thou ſoweſt is not quickened unleſſe it die.* But if death be a corruption, as the Philoſophers ſay, then *Scaliger* was deceived, and (yet keeping the Laws of friendſhip) we may deſervedly reject his opinion. And Epithymum breeds from Thyme, and Miſſeltoe ariſeth from ſome trees, that are ſound, and not yet corrupted. But I anſwer, that a Lowſe differs more from the principle it proceeds from, than Epithymum doth from Thyme, trees from Miſſeltoe. For theſe are of the ſame kinde, and are as it were thruſt forth from the abundance of fruitfull matter, and Miſſeltoe is nouriſhed from the pith of the tree. But it is apparent, that Lice ſeldome breed in ſound bodyes, or not at all, but thoſe that are cachecticall, in Conſumptions, and full of putrefaction, and watry bloud, and whoſe fleſh and skin are corrupt as well as their bloud, and fat, are troubled with them. Oft times ſound men ſweat, and yet breed no Lice, for they will not breed of all ſweat, but from corrupt ſweat, and that which is not bitter. But when it grows bitter, (as we finde it in thoſe that are dying, or troubled with the Jaundies) they forſake their ſtations and creep from the body into the pillowes that are under them; yet they do not alwayes go to other places when men are dead, for as thoſe that take care of the dead Corpſes affirm, they will ſtill ſtick about the mouth of the ſtomack, and under the chin by the ſharp artery; which places which are moſt full of native heat, when they once creep unto, it is no ſmall ſign of death approaching. Alſo the complexion ſerves much to breed Lice, the Countrey, and the dreſſing. For ſome have more, ſome fewer, and ſome in any Climate will be free from them. *Oviedus l. Navig. c.* 82. writes, that Chriſtians in the *Weſt-Indies* have not ſo much as a Lowſe in their heads, and yet the Inhabitants (to uſe *Plautus* his phraſe) are very Lowſy, *pedicoſi*. Alſo our Countrey-men have obſerved, that have paſſed upon the *Indian* ſea, when they have left the Iſle of *Azores* behinde them, all the Lice preſently die, and when they ſee thoſe Iſlands again, they will revive abundantly. I think the reaſon is, (that I may here help *Pennius* out) the extreme heat between the Tropicks, that not only ſucks aliment from them, but the Element alſo. *Veſpucius* teſtifieth of the Iſle

Cauſes of a general lowſie diſeaſe.

L. de Plant. c. 2.

of St. *Thomas*, that the Blackmoors there are full of Lice, but the white men are free of that trouble. As for dreſſing the body: all *Ireland* is noted for this, that it ſwarms almoſt with Lice. But that this proceeds from the beaſtlineſs of the people, and want of cleanly women to waſh them is manifeſt, becauſe the Engliſh that are more careful to dreſs themſelves, changing & waſhing their ſhirts often, having inhabited ſo long in *Ireland*, have eſcaped that plague. Hence it is that Armies and Priſons are ſo full of Lice, the ſweat being corrupted by wearing alwaies the ſame cloathes, and from thence ariſeth matter for their original by the mediation of heat. So thoſe that keep no diet, but delight in eating and filthines, and feed on *Vipers*, *Radiſhes*, *Baſil*, *Figs*, *Lignum Aloes*, *Garden Smallage*, and *Dates* too much, their bodies will from putrefaction of humours breed Lice between their skin, as *Diodorus* in *Empiricus*, *Simon Sethi*, *Aetius*, and *Pliny* affirm. But *Dioſcorides* ſaith it is exceeding falſe, that Lice will grow from eating Vipers. Sheeps-wool that a Wolf hath killed will breed Lice, if a garment made thereof be wet with ſweat, which grant that it be an invention of *Ariſtotle* and *Pliny*, yet experience teacheth us, that cloathes ſmeered with Horſes greaſe, will breed Lice preſently. *Ælian* ſaith that he will be full of Lice, who is anointed with oyl wherein a Stellio is drowned.

Prevention and Cure. Againſt this terrible diſeaſe, which the Greeks call φθειρίασιν, many have invented divers remedies. The *Iriſh* and *Iſeland* people (who are frequently troubled with Lice, and ſuch as will fly, as they ſay, in Summer) anoint their ſhirts with Saffron, and to very good purpoſe, to drive away the Lice, but after ſix moneths they waſh their ſhirts again putting freſh Saffron into the Lye. But *Antigonus in Synag. Hiſtor. Paradox.* ſo ſoon as little puſhes or wheels appear upon the body, bids us prick them, and take forth the Lice: but if they be left unprickt, that general lowſie diſeaſe will come, whereby they ſay that *Alcmæon Phyſicus*, and *Pherecides Syrus* were deſtroyed.

The general Cure of the lowſie Diſeaſe.

Amatus Luſitanus cured that good Venetian at *Ancona* (of whom I ſpake before) who was ſick of a general lowſie diſeaſe. Firſt, by opening a vein, and then purging him; for ſo he drove forth the corrupt humours that fomented the diſeaſe, not at once, but twice or thrice. Afterwards by applying Topical remedies, in a ſhort time he grew free of this plague. Topical Medicaments were made thus: Take bitter Lupins iij. pugils, ſeeds of Staves-acre ij. pugils, in the ſharpeſt Vinegar what is ſufficient, boyl them, and with that Vinegar waſh the body from head to feed, then wipe and dry it, and anoint it with this oyntment following: Take Staves-acre two parts, Sandaracha of the Greeks one part, the fineſt Nitre half a part, mingle them all with the ſharpeſt Vinegar and oyl of Radiſhes, and pound them together very exactly, and with theſe make an oyntment: with which *Amatus* ſoon attained his purpoſe, that the ſick fell no more into the ſame foul diſeaſe. *Amat. Luſitan. cent.* 3. *curat.* 58. *Herod.* (as *Joſephus* and *Ægeſippus* teſtifie) when he had got this diſeaſe by his great pride, and he was ſo ſmitten from God, he went to the Baths beyond *Jordan*, and the Bituminous Lake, that were very good to cure this diſeaſe, but at that time they were of no force, when God was pleaſed to puniſh a proud Prince with a contemptible creature. If the body be lowſie all over, it ſhewes a general Cacochymia, wherefore it is beſt in my opinion, firſt to open a vein, and then to give a Purge, as the humour requires, and ſo to proceed to ſpecificals, and ſuch as agree with the place affected. *Dioſcorides* preſcribes ſuch kindes of internal remedies: Take Garlick with the decoction of Origanum; drink this three daies. *Another*, Let the ſick drink Coriander bruiſed with Origanum, and anoint himſelf outwardly with Honey. He commends alſo Alum-water, and the Decoction of Betes, juice of Ivy and the gum of it with Honey, liquid Pitch, Alum, Synopex ſmeered on with Vinegar, Nitre with Samian Earth and Oyl.

Other outward Remedies that kill Lice, out of Pliny: Seeds of Staves-acre beaten, without the hulls, will free the body from Lice, but better if you mingle them with the Sandaracha of the Greeks, Muſtard-ſeed, Garlick, with Vinegar and Nitre are good for the ſame. Oyl of Radiſh doth cure the lowſie diſeaſe contracted for a long time. Siler, Mountain-ſeed beaten with Oyl, Hyſop, mingled with Oyl, Tar, ſweet Gums, the juice of the wilde Vine, and Staves-acre boyl'd in Vinegar, will free garments from them. So black Hellebore with Oyl or Milk anointed on is very good. *Internal Remedies out of* Pliny. A Snakes caſt skin powdred and drank for three daies, will keep the body free from Lice. Muſtard-ſeed, or ſeed of Tamarisk, drank, are good; ſo is water of Radiſh-leaves, and the juyce of Privet-berries, Plantain, Garlick, the juyce of wilde Cucumer, and Tar. *Nonus* commends the root of the ſharp Dock, bruiſed with Oyl and anointed, firſt waſhing the body with the decoction of *Lupins*, and he preſcribes a remedy of Sandaracha of the Greeks, Nitre, and Staves-acre. *Oribaſius* approves the juyce of Pellitory long rubbed on, or Nitre with the wilde Vine in a Bath. *Rhaſis* prefers the leaves of Barberies, gum of Ivie, great Knot-graſs, and Sea-water. *Avicenna* commends Quickſilver with oyl of Roſes, and wilde Staves-acre with Arſenick. *Haly Abbas* bids us purge the body, and then to eat meat of good juyce, to waſh away the filth, and to change our clothes often: then he preſcribes Quickſilver bruiſed with Staves-acre-ſeed, and oyl of wilde Saffron, and with that to anoint the body morning and evening, after bathing. He farther commands us to uſe theſe Remedies: Take long Birthwort, bruiſe it with Pine-leaves and Quickſilver, and with oyl of *Lupins* what may ſerve turn, make an Unguent. Anoint the body with that at night, and in the morning waſh it with hot water, after that, with a decoction of Alum, Wormwood, Santonicum, or Mugwort, rub it away. *Another*: Take round and long Birthwort, red Arſenick, that is the Greeks Sandaracha; and with oyl of Ben. make an unguent, with this anoint the body in the evening, and in the morning rub the body with Bran and Barley-meal. *Another*: Take biter Coſtus, Cardamomum, Buls gall, bray them with the Oyl of Piſtaches, anoint the body with it, and in the morning waſh it with the water of a decoction of clear Bran, or of Barley. *Conſtantinus* uſed Quickſilver with aſhes, Litharge, Vinegar and Oyl mingled together for hot complexions; but for cold he uſed Pine-tree juyce, Sea-water, Staves-acre, Nitre, Arſenick, and oyl of wilde Saffron. *Johannes de Rupe ſciſſâ*, mingled Quickſilver with Aqua vitæ, and the powder of wilde Staves-acre, with that he provides a girdle, which worn about the bare loyns will kill the Lice. *Serenus*, *Abinzoar*, *Amatus Luſitanus*, *Matthiolus*, *Hildegardis*, *Johan. Vigo*, and others, preſcribe other remedies, but moſt of them of theſe materials. He that deſires more remedies againſt the lowſie diſeaſe, let him read *Paulus Ægineta*, *l.* 3. *c.* 3. *Galen l.* 1. *de comp. med. ſec. loc.* and *Guiliel. de Saliceto l.* 1. *c.* 48. I knew one (ſaith *Pennius*) who when he was Governour of an Hoſpital, he cured the lowſie diſeaſe thus: He whipt the ſick till the skin came off with Birchin rods, and where the points were, the Lice would never breed again: A new kinde of cure, and moſt fit for idle Sea-men and ſlothful companions. *Amatus Luſitanus* (if I do not miſtake) tels of a poor man that had a hole in his back by reaſon of an Ulcer, out of which daily abundance of Lice crept; queſtionleſs they were bred between the skin and the fleſh, and afterwards by an unguent of wilde Staves-acre, Quickſilver, Pepper, and Lard, he was cured. *Raland* prefers the Balſam of Sulphur to all remedies, and not without cauſe.

Aetius writes, that wilde Lice muſt firſt be picked out with great diligence, then the place muſt be fomented with warm Sea-water; yet very warily if they ſtick in the eye-browes, that you hurt not your eyes: then apply this remedy: Take Alum Sciſſil ij. drams, Staves-acre j. obolus, Pepper j. obolus, burnt Braſs j. dram, Myrrhe ij. oboli, Sciſſil-ſtone ij. oboli and half, Miſy torrefied j. dram; bruiſe it and dry it, and ſo uſe it: Then let them bathe and heat their head with diſcutients and ſtrengthners, waſh the whole body, and rub it again. Our Countreymen pick them out, and then they anoint the places well with black Sope, and if the body were too hot, anoint the body with the pap of a ſweet apple mingled with Quickſilver, and it is a certain remedy. *Celſus* ſaith they offend the eye-brows ſo much ſometimes, that the eyes being ulcerated they dim the ſight, then incorporate purified Quickſilver with tops of Wormwood, and old Hogs greaſe, for nothing doth more certainly cure one, if it be done with caution. Alſo take Aloes j. ounce, Ceruſe, Frankincenſe, each v. ounces, Lard what may ſuffice, make an unguent; ſome mingle with this Quickſilver and Brimſtone. But here obſerve, if Crab-lice do breed thick on the beard, eye-brows, the ſhare, and *peritonæum*; firſt all the hairs muſt be ſhaved off, ſo ſoon as a general purgation hath been taken, and then the forementioned Topicks muſt be applyed, and all galls, eſpecially Buls gall, Calfs gall, Capons and Partridge, with juyce of Centaury and Quickſilver, are held very good. A lye of the aſhes of Tamarisk deſtroyes the Lice. *Rhaſis* and *Albertus* commend the marrow of a live Vulture taken forth. *Varignana* uſeth the milk of the greater Bindweed, wilde Mints, and Sow-bread, with a lotion of Honey. But chiefly he extols this Medicament: Take Staves-acre ij. ounces, Wine iv. glaſſes, Hogs briſtles ij. ounces, purged Quickſilver j. ounce, let them boyl, and foment the body with the decoction. *Marinellus* and many others make great reckoning of Wine-lees, juyce of Broom, a Lixivium of Sena, Acorns, Caſſia, Pellitory of *Spain*. But *Gilbert* an Engliſhman burns Leeches and Styrax Calamita together, and with theſe and Hogs bloud, he preparss an excellent Unguent.

These filthy creatures, and that are hated more than Dogs or Vipers, by our daintieſt dames, **Uſe of Lice.** are a joy to thoſe that are ſick, and ſometimes a cure. For they that have lain long ſick of a putrid diſeaſe, when Lice breed in their heads, they foreſhew the recovery of the ſick. For it is a ſign of the exhaling of it, and flying forth from the centre to the circumference, Alſo experience proves that the Jaundies are cured with twelve bruiſed Lice drank with Wine. *Pennius* gave Lice and Butter to beggers and ſuch as live on alms, very often, and ſo he recovered ſome that were almoſt deſperate; ſome for the Dyſurie are wont to put into the yard living Lice the greateſt they can, to draw forth the urine by their tickling: which *Alexander Benedictus* relates of Wig-lice, when clammy humours have hurt the eyes, ſome cleanſe them with Lice put into them, which creeping here and there like *Oculus Chriſti*, collect the matter; and wrapt up in that they will fall out. Alſo what ſhall I ſay? Apes, Baboons, will feed on them. And *Herodotus* and *Strabo* in *Pontus* ſpeaks of men that feed on Lice, (to whom *Arianus* in *Periplo* conſents) and the Spaniards ſpeake the ſame of the Inhabitants of the Province of *Cuenenſis* in the *Weſt-Indies*. And they hunt after them ſo greedily and deſire them, that the *Spaniards* can hardly keep their ſlaves from feeding on them. And it is no wonder that they can feed on Lice, that devour Horſes, Aſſes, Cats, Worms (and more than that) men that are raw. But becauſe it is an idle work, the women have that task put upon them to catch Lice, and they do that work almoſt, and therefore *Strabo* cals them *Pedilegas*. *Serenus* makes another uſe of them, and writes thus:

Some hurtful things our bodies do produce
By nature, which do ſtand us in great uſe,
To keep us waking, and to ſtop th' abuſe
Of ſleeping over much ——

See the Chapter of Nits amongſt the Inſects without feet: Chap. 35.

Chap. XXIII.

Of the Lice of brute Beaſts and Plants.

THis plague fell not only on Man for his firſt tranſgreſſion, but upon beaſts alſo: yet amongſt mankinde children are more full of them than young people, men than women, ſick people than ſound, naſty people than ſuch as are cleanly; and ſo it is with other creatures: only the Aſſe is ſaid to be free from this diſeaſe, not becauſe Chriſt rid upon him, (as ſome fools dream) but becauſe he goes ſo ſoftly that he ſeldom ſweats, or elſe God hath beſtowed upon him ſome peculiar antipathy. The Lion is a couragious creature and king of beaſts, yet is he ſo tormented with Lice feeding on his eye-browes, that when he cannot help himſelf with ſcratching with his clawes, he will ſometimes grow furious, as *Pliny* reports. Who hath not ſeen the Lice of a Horſe, that moſt generous four-footed creature, and Nits with red heads that are apparent, and the reſt of their body is of a dark white? The Lice of Oxen and Calves are black, and thoſe that are lean have very many, like to Hog-lice almoſt, but ſhorter and ſomewhat thicker. Hog-lice have the ſame form, but they are ſo great and hard that you can hardly kill them with your fingers, theſe are called *Urii* from burning, as *Albertus* teſtifieth *l.* 4. *c.* 205. Dogs though more ſeldom, yet are ſometimes Lowſie; but their Lice are ſmall ones, ſpeckled, and with a whitiſh head, the reſt of their body is of a blackiſh or wan colour from blew, as I firſt obſerved by the Dogs at *Malta*. Sheeps Lice are very ſmall, their heads are red, their bodies white. Goats Lice differ but little from theſe: when the ſtag hath ſtrove to caſt his horns, he is troubled with an exceeding itching of his eye-lids, from Lice that breed of the ſame colour with their head that thruſts forth: who doth not know by *Geſners* Hiſtory of Birds, or by his own experience, that Swans, Hens, Geeſe, Pigeons, Quails, Pheaſants, Partridge, Hawks, and other fowl have Lice? Alſo *Palladius, Columella, Paxanus, Varro,* and other principal Leeches for cattel, have ſhewed us remedies ſufficient for to kill Lice in brute beaſts, that it will be no glory for me to inſiſt upon them, nor fruitful to the Reader: what *Avicenna l.* 4. *fen.* 6. *tract.* 5. meant by Vultures Lice, I cannot conjecture, and I much deſire the help of ſome *Oedipus* to untie this riddle for me: we mentioned before in our firſt Book, that your dung-Beetles are killed by their own Lice. Alſo Salmon-fiſhes, eſpecially the leaner ſort, were ſeen by *Pliny* to have many Lice under their gils oft-times. Alſo they are found in Plants, as Southernwood, Wormwood, flowers of Water-lillies, and chiefly in Columbine leaves, in *June*, by reaſon of its exceeding ſweetneſs, (ſaith *Geſner*). Alſo ſome plants are called lowſie plants, either becauſe they are good againſt them, as Staves-acre, or becauſe they breed Lice, as *Dodonæus* his *Fiſtularia*, or becauſe they abound with Lice, as Columbines, or from the great deſpicableneſs of them, as the fruit of the great plum-tree, which are therefore called lowſie plums.

Chap. XXIV.

Of little Lice called Syrones, Acari, *and* Tineæ, *or Hand-worms, or Mites in living Creatures.*

THo. *à Viga* falſly reports that the Ancients knew not what Syrones were, for *Ariſtotle* cals it ἀκαρίδας, 5. *Hiſt. Animal. c.* 2. Alſo they ſeem to be called Syrones, ἀπὸ τοῦ σύρειν ἕρπειν, becauſe they creep under the skin continually. It is the ſmalleſt living creature that is, which uſeth to breed in old cheeſe and wax, and alſo in mans skin. *Pollux* and *Suidas* ſay that ἀκαρὲς is ſuch a ſmall thing as is too ſmall to be divided. In Latine they are called *Pedicelli*; in French, *Cirons*; in Piemont *Sciri*; in Gaſcony, *Brigantes*; in Engliſh, *Mites*, in cheeſe, leaves, dry wood, and wax: but in men they are called *Wheal-worms*; the Germans call them *Seuren. Abinzoar* ſaith that Syrones are called *Aſſoalat*, and *Aſſoab*, they are little Lice creeping between the skin of the hands, thighes, and feet, and raiſing watery bliſters there, they are ſo ſmall creatures, that a good eye can hardly diſcern them. *Gabucinus* ſaith; Unto our times a kinde of filthy torture that is not to be endured, is continued, a very ſmall Lowſe, not ſo great as a Nit, creeps under the skin. And *Johan. Phil. Ingraſſias* out of *Abenzoar*, deſcribes them very handſomely thus: when the skin is excoriate when that ſmall little pimple and puſh appears like to a red angry wheal, little living creatures creep forth ſo ſmall a man can hardly ſee them. And *Joubertus* writes that *Syrones* are thoſe that are the ſmalleſt Lice of all, alwaies lying under the outward skin, and creep under it as Moles do, biting it, and cauſing a fierce itching. They conſiſt of a dryer matter than *Morpiones*, which for want of glutinous matter, is almoſt divided into Atoms. They breed often in the head, and eat the roots of the hair. The Greeks call them τριχοβιώτας, τριχοτρώκτας, σῆτας τριχοβόρους; ſome call them *Tineas* by a peculiar name. *Syrones* have no certain form as *Scaliger* well obſerved, only they are round: our eye can ſcarſely diſcern them, they are ſo ſmall, that *Epicurus* ſaid it was not made of Atoms, but was an Atom it ſelf. It dwels ſo under the skin, that when it makes its mines it will cauſe a grear itching, eſpecially in the hands and other parts affected with them, and held to the fire. If you pull it out with a needle, and lay it on our nail, you ſhall ſee it move in the Sun that helps its motion; crack it with the other nail, and it will crack with a noiſe, and a watry venome comes forth; it is of a white colour, except the head; if you look nearer it is blackiſh, or from black it is ſomething reddiſh. It is wonder how ſo ſmall a creature, that creeps with no feet as it were, can make ſuch long furrowes under the skin. This we muſt obſerve by the way, that theſe Syrones do not dwell in the pimples themſelves, but hard by. For it is their property not to remove far from the watry humour, collected in the little bladder or pimple; and when that is waſted or dryed up, they all die ſhortly after: whence we collect that as they breed from putrefied whey, ſo again they are ſuſtained by it. None of the Ancients, except *Abinzoar* writes of theſe, who ſaw this diſeaſe, and rightly ſet down the remedy. Nor are thoſe Syrones of the kinde of Lice, as *Johan. Langius* ſeems to aſſert out of *Ariſtotle*; for they live without the skin, but theſe not, nor do I know that *Ariſtotle* in any of his writings, placed *Acaros* amongſt Lice.

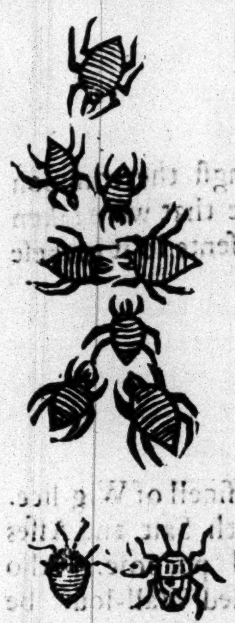
How cruel a diſeaſe this is, and to be compared with the lowſie diſeaſe, an honourable Engliſh Lady of ſixty years knowes, ſhe was the moſt vertuous Lady of *Penruddock* a Knight, that by drinking too much Goats-milk (for ſhe feared a conſumption) was for ten years troubled with theſe wheal-worms, with which night and day ſhe was miſerably tortured in her eyes, lips, gums, ſoles of her feet, head, noſe, and all her parts, that ſhe lived a very grievous life, alwaies without reſt, and at laſt in deſpite of all remedies, the diſeaſe increaſed, whereby her fleſh was conſumed, and ſhe died thereof. I muſt not overpaſs this, that the more the women that ſat by her, picked them out with their needles, the more their young ones bred, and when they had gnawed the fleſh alſo, they grew to be bigger. Hence let proud deſpicable mankinde learn, that they are not only worms but worms-meat; and let us fear the power of that great God, who can with ſo contemptible an army confound all pride, haughtineſs, daintineſs, and beauty, and conquer the greateſt enemy. It may be ſome will think it impoſſible for theſe Wheal-worms to breed between the eyes; but we ſee it is ſo, and we finde it was done ſo formerly, by an Epiſtle of *D. Le Ieune*, a Chirurgeon to *Jacob Guillimæus*, his words are theſe: Know, ſaith he, that in the conjunctive membrane, or white of the eye as they commonly call it, ſome great Wheal-lice by creeping up and down here and there, biting, will make the place itch ſo much, that a man cannot hold from rubbing. I in this caſe uſed remedies the Ancients uſed againſt the Lowſie diſeaſe, but to no purpoſe. Then my friends ſent me to a ſick woman, who with a ſilver needle pickt out theſe worms ſo cunningly and without all pain, that I wondred at it. And indeed had not I ſeen theſe little creatures to creep, with my own eyes, *I could never have believed* that Wheal-worms could breed there. They dye for want of moyſture that is ſalt, and are killed with contrary remedies. The common people ordinarily picks them out with a ſmall needle, (the Germans call them *Seuren Graben*) but ſince this takes not away the cauſe of them, which foſters them, the diſeaſe ſtill abides: wherefore it is beſt to kill them with an unguent or fomentation, which may at once take off that troubleſome itching. That which penetrates moſt and kils theſe Syrones is ſalt and vinegar. *Laur. Joubert. Joh. Arden*, formerly the moſt learned Chiruregeon of *England*, ſaith that a Lotion with Sublimate kils them quite. And it ſeems not to be againſt reaſon: for it dries, penetrates, reſiſts putrefaction, and by its heating acrimony kils them all. *Abinzoar l.* 2. *c.* 19. *tract.* 7. preſcribes theſe following remedies. Firſt purge the body with an infuſion of wilde Saffron-ſeed, and Nettle-ſeed, after that anoint it outwardly with the oyl of bitter Almonds, or *de Cherva*, and with the juice of the leaves of Peach-tree: give boyled Partridge for meat, and leavened bread. Let the patient abſtain from all kinde of fruit (except almonds) eſpecially from Figs, Grapes, Jujubes, and Apples; rub the body often with the ſubſtance or pulp of Melons, or with the Mucilage of the ſeed. But if the body ~~be fleſhy, rub it with the juyce of the leaves of~~ the Peach-tree. *Pliny*, where there is this diſeaſe, forbids Oxe-fleſh, Hogs, Geeſe, and all kindes of Pulſe.

Erotis l. de paſ. mul. writes thus: Wheat tempered with Wine, adding thereto powder of Frankincenſe, put to the parts affected for a plaiſter, will kill theſe *Wheal-worms* every where, chiefly upon the cheeks and foreheads. *Another*: Take common Salt, black Soap, live Brimſtone, each alike, incorporate them with vinegar of Squils, and anoint the place with them. Another for Syrones on the face, which the Author of the Engliſh Roſe cals *Barrones*: Take ſharp Dock, Frankincenſe, Dragons cuttle-bone, each alike, make a powder, and thrice in a week rub the places where the Worms breed, but firſt waſh you face with a decoction of Bran, and on Sunday waſh your face with the white of an egg and white Starch, and then waſh it often with river-water, or with white ſtarch. *Alexander Petronius Traianus* commends this remedy moſt: namely a fine linnen cloth made into lint, that it may be the ſofter, and ſtick the faſter: binde this to the part affected, then lay on the white of an egge that is roſted hard, whileſt it is hot, and cut into large pieces, and then binde upon it ſome thicker cloth, and ſo let it remain ſome hours. Then taking all away, you ſhall finde the inward lint full of theſe ſmall Lice, which is thus proved: ſhake this over the fire, and you ſhall eaſily hear theſe young Syrones crack. Againſt hair-eating Worms and Mites in the heads of children, that are uſual, and that will make little holes in them, *Alexius* makes great account of this remedy. Take Frankincenſe, Bores-greaſe ſo much as you pleaſe, let them boyl in an earthen veſſel that is glaſed, and make an unguent. *Another*: Sprinkle on the powder of burnt Allum, and lay on ſome lint. *Another not uneffectual*: Powder quick Brimſtone, with Roſe Vinegar of Squils, or elſe incorporate it with Roſe-water, and binde it on with a cloth for 24 hours. *Another that is moſt certain*: Take juice of Lemmons and Aqua vitæ, each alike, burnt Salt what may ſuffice, mingle them, and anoint with them often. *Another of Hildegard*; Apply that skimming of the air, that is, thoſe cobwebs that are ſcattered in Autumn, and it will certainly deſtroy all thoſe Syrones and little worms. Alſo ſtrew on the powder of Bees that are dead in their hives, on the places affected, and they will all dye, chiefly if it were mixt with Aqua vitæ, or Vinegar of Squils. *Again*: binde on the crums of white bread whileſt they are hot, do it often, the heat will kill them. Fir-tree ſeed burnt to aſhes, which growes on the top of the tree, if it be ſtrewed on, will help much. Alſo the kernels of Barberries, powdered and laid to the place, will kill Syrones. *Johan. Vigo* preſcribes theſe remedies againſt Syrones whereſoever they breed. All bitter things, ſaith he, are good againſt them, ſhave the part affected, that they may penetrate the better. Oyl of Vitriol warily and lightly powred on will kill them mightily. Quickſilver with French Soap and a little Orpiment, and ſome Vinegar of Squils and ſome Aloes, doth much good. *For Syrons in the Teeth*: Some call the Worms that breed in mens teeth Syrones, which they affirm have fallen forth like ſhavings of Lute-ſtrings by the ſmoke of Henbane-ſeed, received at the mouth. Though I ſhould truly deny that theſe ſhavings are Worms, yet that Worms breed in rotten teeth Barbers and every man knowes. *Againſt venomous Syrones*, *Abinzoar* cals it the diſeaſe of Oxen, between the fleſh and skin there breeds a kinde of venomous Worms; which raiſeth no ſmall tumour, as great as a walnut, wherein the Worm Syro lies hid, (he is venomous indeed, though he be but little). This diſeaſe neglected will kill. He appoints the Remedy thus: The place muſt be preſently burnt with an actual cautery, then apply lint with Barly-meal and ſweet water: when the pain of the burning is over, the humour will fall being anointed with Unguent of *Agrippa* and oyl of Roſes, then waſh the place with water of Honey, and ſtrew on powder of Roſes; and then uſing incarnatives, cloſe up the wound. But if the part cannot be cauterized or cut, take Lupine-meal, Soot, Pepper, root of Endive, each alike, and bruiſing them all, and wetting them with Alchitra, fill half a Nut-ſhel with them, and keep them on ſo long, till the force of the medicament may penetrate to the Worm: but great care muſt be had that no part be left bare without the ſhell. A little creature called *Nigua*, as *Thevet* imagineth, doth much vex the Weſt-Indian people. It is ſaith he an Inſect moſt offenſive to mens hands, far leſs than a Flea, but breeds in the duſt as a Flea doth. *De Lery* was taken with the ſame overſight, and was not aſhamed to be mad with *Thevet* for company. But *Oviedus* affirms that they breed between the skin and the fleſh: but eſpecially they breed under the nails of the fingers, into which place, when once they are rooted, the cauſe a ſwelling as great as a peaſe, with a mighty itching, and they multiply like to Nits. Now if this worm be not timely pickt forth with its brood, in a few daies this itching becomes a wonderful pain, and the ſick dye with the violence of the diſeaſe. There is a Worm that breeds on the bodies of Hawks and Faulcons under the roots of their wings, it is called *Trocta*: we have left off to doubt any longer whether it be a *Syron*, *Acarus*, or *Tinea*, or not, by reading *Albertus* his Book, wherein you may read a remedy for that diſeaſe at large. Alſo, as *Bonaceiolus* reports, in the urines of ſome women with childe, little red Worms called Syrones will be ſeen, which are a certain argument of conception. *Dermeſtes* is an Inſect that will conſume skins, and from skins it hath its name, and as the skins vary, ſo that changeth its colour. For oft-times it followes the colour the skin is of: it is as big as a Flea, with ſix feet and a forked nib. Alſo a Moth conſumes clothes, eſpecially woollen clothes: for it is a very devouring creature, and breeds from Butterflies as I ſaid.

CHAP. XXV.

Of Wall-lice.

THE Greeks call it κόρις, the Latins, *Cimex*; the Hebrews, *Piſchpeſcz*, from ſeeking; for it ſeeks after living creatures that are aſleep, to ſuck their bloud. *Iſidore* will have it called κόρις and *Cimex*, from the herb κόρις, which they call *Cimicaria*; I confeſs ingenuouſly I know not what herb it is, unleſs it be that low and ſtinking kinde of wilde Orach, which growing near to wals and heaps of dirt, is called by a bawdy name, *Vulvaria*. For *Coris* of *Matthiolus* ſmels well, and therefore agrees not with *Cimicaria*. The Arabians and Barbarians call it *Alcarad*, *Deboliar*, *Feſaſes*, *Coroda*, and *Corab*: the Germans *Wantlauſz*; the Engliſh, *Wall-lowſe*; the Saxons *Wantzen*, that is *Wall-lowſe*; the Brabant people call it not amiſs *Wuegluys*, or Lowſe of bedſteds; the Spaniards call them *Chimeſas*; the Italians *Cimice*; the French *Punaiſe*. Now Wall-lice are either home-bred and without wings, or winged and wilde Lice. We ſpake of theſe in the firſt book, now we ſhall ſpeak of thoſe that breed in houſes.



This home-bred Lowſe is a creature naturally diſdained, to uſe the words of *Pliny*, it is almoſt like to a Tike, for the body of it is of the figure called *Rhomboides*, black of colour with a little red: it hath ſhort feet near the neck, on each ſide three, and the belly and back marked with inciſions; the skin is very thin, that it will break in pieces with the leaſt touch, and ſend forth a moſt abominable ſtink. In the night by biting ſharply, it ſucks bloud out of mens bodies to ſuſtain it ſelf. For like Moths it cannot endure the light, and when the day breaks it will go into chinks of beds and wals. After it hath bit it leaves behinde purple ſpots ſwoln with an itching pain. They are bred, after *Ariſtotles* opinion, from moiſture that ſweats forth on the ſurface of the bodies of living creatures, *lib. 5. c. 31. hiſtor.* but without doubt they ariſe from other humours corrupting about beds, and that ſweat out of wood by degrees. Alſo they propagate by copulation, as *Pennius* obſerved about *Orleance*; for whileſt he kept company with a *Spaniard* born at *Capera*, he ſtrove to draw his ſword to cut off a bough: but when he could hardly do it for the ruſt, he was forced to cut his ſcabbard, where he found abundance of great Wall-lice, with a great company of young ones, and a multitude of whitiſh eggs of a watry complexion. *Scaliger* ſaith they will breed in Hens neſts, and alſo in a ſhort time they will infinitely increaſe in the Quails neſts. They are frequent in Fir-tree bedſtids, and chiefly when the ſtraw growes old. Alſo they will breed in paper-books. *Ludovicus Vives* in his Dialogues, thinks that wals overcaſt with Alabaſter are the moſt ready to breed Worms. It is commonly ſaid (ſaith *Joſephus Scaliger*) that *Wall-lice* will breed from *Wall-lice* bruiſed, which is hardly credible. *Cardan* that was a fancier of ſubtilties, writes that the *Carthuſians* are never vexed with Wall-lice, and he gives the cauſe, becauſe they eat no fleſh. The beds at *Toloſe* (I uſe *Scaligers* words) eat no fleſh, yet they are noted for breeding Wall-lice. He ſhould rather have alledged their cleanlineſs, and the frequent waſhing of their beds and blankets to be the cauſe of it, which when the *French*, the *Dutch*, and *Italians* do leſs regard, they more breed this plague. But the *Engliſh* that take great care to be cleanly and decent are ſeldom troubled with them. In the year 1503. when *Pennius* writ this, he was called in great haſte to a little village called *Moreclack* near the Thames, to viſit two Noblemen, who were much frighted by perceiving the prints of Wall-lice, and were in doubt of I know not what contagion. But when the matter was known, and the Wall-lice were catched, he laught them out of all fear. Againſt thoſe enemies of our reſt in the night, our merciful God hath furniſhed us with remedies, that we may fetch out of old and new writers, which being uſed will either drive them away or kill them. For they are killed with the ſmoke of Oxe-dung, Horſe-hair, Swallows, Scolopendra, Brimſtone, Vitriol, Arſenick, Verdigreaſe, Lignum aloes, Bdellium, Fern, Spatula Fœtida, Birthwort, Clematitis, Myrtils, Cummin, Lupins, Knotgraſs, Gith, Cypreſs, as we read in *Aetius*, *Rhaſis*, *Florentinus*, *Didymus*, and *Cardan*. But the beſt way is with curtains drawn about the bed, ſo to ſhut in the ſmoke, that it can have no vent. And for this end unguents, oyntments, Embrocations are provided of gall of an Oxe, he Goat, Hedge-hog, Calf, ſhe Goat, Aſſe, with the leaves of Cucumers and Ivy, Citrons, Iſing-glaſs, Oyl lees, Oxe dung, and the ſharpeſt Vinegar, quick Brimſtone, Squils, Capers, wilde Staves-acre, Wormwood, ſweet Wine, Lime, Quickſilver, Bayes, black Soap, winter Cherries, juyce of Oranges, Lemons, &c. whereof conſult *Varro*, *Palladius*, *Arnoldus*, *Didymus* and others: what concerns preventional means, Hemp-ſeed, or winter Cherries laid near the bed, or hanged up drive away Wall-lice. *Democritus* ſaith, that Harts-horn or Hares feet hanging about the bed-poſts, will do as much: which another author aſcribes to a Foxes ear. The dregs of boyled Butter caſt where there are Wall-lice, will wonderfully kill them, for they will feed on that till they burſt. May be this is that fat whereof *Cardan* ſpeaks in theſe words: I knew once, ſaith he, but I have forgot, a fat, that being ſmeered on a wooden round circle, would ſo allure all the Wall-lice unto it, like a charm, that one could ſcarſe ſee the wood for them. Some ſay that a half-penny laid under the bed will drive away Wig-lice. Some hang by a ſheet wet in cold water, and ſo by actual cold they drive them away. Oyl of it ſelf or with Vitriol, or Buls gall, or the decoction of black Chamæleon will drive away Wall-lice. Moreover all things that are exceeding bitter, and have a ſtronger ſmell, are doubtleſs good againſt Wall-lice. And that ſtrong ſmels will drive them away, *Olaus Magnus* ſhewes by many raw hides heapt up together. *Alexander Benedictus* ſaith that when theſe multiply over much, they foreſhew the plague. For it ſignifies a corruption of the air, or humours, or both. *Bacchus* deſcending to hell, as the Greek Comedian wittily ſets it down, deſired *Jupiter* to aſſign him ſuch Innes in his journey, where there were but few Wall-lice: yet ſaith *Pliny*, that concord and diſcord, which fils all Phyſick, by the conduct of nature hath produced nothing that in ſome part is not good for man, and therefore that which that Comedian

median God thought hurtfull, mans poſterity hath found beneficiall. Indeed wall-worms are of a corroding quality, yet have they place in Phyſick; for taken with the bloud of a Tortoiſe they cure the bitings of Serpents. By their ſmell the Epilepſie that ariſeth from the ſtrangling of the Mother, is diſcuſſed. Incloſed in an Egge or Wax or a Bean, and ſwallowed, are good for an Impoſtume, and a Quartan Ague, and will help them (ſaith *Pliny*, *Dioſcorides*, *Galen*, *Marcellus*, *Aetius*, *Actuarius*.) Drank with Vinegar or but ſmelt to, they will remove Horſleeches that ſtick too faſt. Alſo the Verſes of *Quintus Serenus* ſhew that they are good for Tertian Agues.

> *Shame not to drink three Wall-lice mixt with wine,*
> *And Garlick bruiſed together at noon-day.*
> *Moreover a bruiſ'd Wall-louſe with an Egge, repine*
> *Not for to take, 'tis loathſome, yet full good I ſay.*

Geſner in his writings confirms this experiment, having made trial of it amongſt the common and meaner ſort of people in the Countrey. The Ancients gave ſeven to thoſe that were taken with a Lethargy, in a cup of water, and four to children. *Pliny* and *Serenus* conſents to it in theſe Verſes.

> *Some men preſcribe ſeven Wall-lice for to drink,*
> *Mingled with water, and one cup they think*
> *It better then with drowſy death to ſink.*

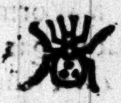
And he of old ſang, that bleeding at the noſe would be ſtayed with the only ſmell of Wig-lice. Some there are, that cure dark ſights by reaſon of a Cataract, bruiſing theſe with Salt and Aſſes milk. Many anoynt painfull ears with honey mingled with Wall-lice, to good purpoſe. Alſo *Marcellus* ſaith they ſtay vomiting, and he ſaith it is a certain remedy, if a bruiſed Wall-louſe be ſwallowed in a rear-egge, by one that is faſting, and knowes nothing of it. *Pliny* ſeems to prove from thence, that they are good againſt the ſtings of all Vipers, Adders, and all kinde of Serpents, becauſe that Hens that feed on theſe, are free from the ſtinging of theſe Creatures. *Aetius* commends Wall-lice againſt the Strangury, and to drive forth the Stone. *Vegetius* in this caſe puts one Wall-lowſe into the ear, another into the paſſage of the Yard, and with a gentle friction of the parts, he affirms that they will preſently make water, which remedy he ſeems to have borrowed out of *Herod* in his Hippiatricks. *Galen Eup.* 5. reports, that Wall-lice will not only provoke urine, but alſo drank for nine dayes ſpace, will ſtop childrens water that goes from them againſt their wills. *Valerandus Dourez* an Iſlander, a moſt learned Apothecary of *Lyons*, often ſaid, that theſe drank with water hot, or wine, or broth, would wonderfully help thoſe that were troubled with the Stone. Moreover, the later writers wonderfully commend the aſhes of them with a fit decoction caſt in for a Clyſter, to bring forth the Stone. If they be bruiſed and anoynted on the paſſage of the yard, it will preſently provoke urine. *Marcellus*. There are ſaith *Geſner*, that for the Colick preſcribe four live Wall-lice to drink in wine, in the morning, and then they command to faſt two hours after, and they give as many to drink two hours before ſupper, and ſo again the next day untill they have drank up twelve Lice: truly it is a remedy to be deſpiſed, but it is no new remedy in that deſperate diſeaſe, and it is a preſent cure. It helped *Funckius* the Governour of *Zurick* at the ſecond taking, and ſo it did ſome of his Kindred alſo, and he was like to have written a commendation in praiſe of Wall-lice. *What concerns outward diſeaſes.* If you pull up the hair by the roots, and anoynt the part affected with the bloud of Wall-lice, and let it dry, it is the opinion of *Galen*, *Aetius*, and *Nonus*, that they will never grow again. *Pliny* ſaith that if you anoynt the breaſts with Gooſe-greaſe and Wall-lice, the pains will abate, the Moles of the matrix will break forth, and ſcabs of the privities will be cured. *Cornelius Gemma* in his Appendix of his *Coſmocritica*, ſpeaks of a woman in whoſe Skull opened, were found abundance of Wall-lice.

CHAP. XXVI.

Of Tikes, and Sheeps Lice.

The Tike in *Latine Ricinus*, in *Greek* κρότων, *Heſichius* calls it ἀσκόντος, *Suidas* κόιτος, and others call it κυνοῤῥαιστὴς, *Sypontinus* calls it κυνόμυιαν, but that is not right, for it wants wings. The *Arabians* call it *Alcharad*, *Alſeſafes*, *Albalem*, as *Bellunenſis* reports. The *Forlivi*, ſaith *Hermolaus Barbarus*, to this very day call Tikes ῥαλσας, as we read in *Dydimus Zelotes*. It is called *Ricinus* in *Latine*, becauſe it is like the ſeed of the Plant *Palma Chriſti*. *Gaza* calls it *Reduvium*, and *Albertus* ſometimes calls it *Taca*. Alſo *Albertus Vincentius*, *Guillerinus de Conchis*, call it *Engulam*. I think that at firſt it was called *Cica*, ſaith *Scaliger*, becauſe *Cici* is the ſame with *Croton*. The *Italians* call it *Zeva*, the *Germans Holtzback*, the *French Plata* from its compact body, the Engliſh Wood-teek. Some diſtinguiſh between *Ricinus* and *Reduvius*, thus very exactly.

Ricinus is a ſmall Inſect, that when Summer comes on breeds in paſtures among graſſe, and in Woods amongſt the leaves, of ſome putrid humour: with a very compact body and that feels plain, with a skin very tough, of a Diamond figured body, of a black ſhining colour, or a dark brown; but ſo ſoon as it faſteneth to any living Creature, and thruſting its head within the skin, it drawes the bloud, in a ſhort time it growes great and ſwells, and at length becomes almoſt round. It hath ſix feet faſtened to its neck, with a ſharp noſe, but ſhort, it produceth no young ones, nor is it produced by other living Creatures, and in this it differs from all other Inſects, that it is filled with food abundantly, and yet there is no paſſage for any excrement, and therefore it may be the *Hetrurians* call is *Cana*. Let therefore the materiall Philoſophers that with *Aphrodiſeus* draw all things from the manifeſt qualities of the Elements, conſider diligently, to what default of matter or confuſion they will be here forced to fly. If they imagine, that Nature wanted a bodkin to pierce a hole in the tail, they deſerve to be hiſſed at. But rather let them here ſee and acknowledge that of *Paracelſus*, *That bodies may be made from Spirits, and Spirits from bodies.* *Pliny* calls a Tike a filthy Creature, the end of whoſe gluttony is, as to gluttons amongſt men, death it ſelf. For in a few dayes it will break with over-fullneſſe; yet it will faſt luſtily for ſeven dayes. I ſcarce conſent to *Scaliger*, who ſuppoſeth Tikes will breed in a mans beard and groins, for being there faſtened it will ſtick cloſe to feed it ſelf: yet *Euſtathius* and *Heſichius* are of his ſide in theſe words. It is called a Tike, becauſe it ſticks faſt to what it is bred in. But the truth is, a Tike is not bred in living Creatures, but from the corrupt matter of leaves and graſſe as I ſaid before, and as *Ariſtotle* affirms, *Hiſt.* 5. *c.* 19. *Tikes breed of Plants.* May be *Scaliger* meant by a Tike ſome Lowſe like a Crab, or ſome Crab-lowſe in man; for they both breed in the beard and privities, and can very hardly be pulled off. It cruelly plagues men and Oxen, but eſpecially barking Dogs. *Cato* alſo teſtifieth that Sheep and Goats are troubled with Tikes, but he was deceived by the likeneſſe of their bodies; for that Lowſe of Sheep ſhould be called *Redwium*, our Countrey-men ſay (a Sheeps Lowſe) between which and a Tike there are many and different marks: For a Sheeps Lowſe hath a long little beck, and its body when it is fulleſt is never ſo diſtended but being preſſed, it will never ſeem round. Alſo the feet of this are of a dark red, the back Aſh-coloured, marked with three black ſpots, and it is framed after the faſhion of a heart. The head is not alwayes but ſeldome faſt in the skin, and it drawes bloud forth but by turns, and it voids the excrements that breed of it by the tail, and it will dy Wooll of ſo deep a green, that this cold tincture ſhall ſcarce be bettered in a hot dying Fat. Sheeps Lice will live a whole year in ſhorn Wooll; but Tikes live only upon the hot blood of the Creature. Let therefore *Cato* maintain them both to be of one kinde, yet truth will maintain a vaſt difference between them. *Sacos* is a little Creature, like to the ſwellings of leprous people, ſaith *Albertus*. *Geſner* doubts whether he underſtand by that a Tike or a Breez; I rather think he meant a Tike, both from the round form of the ſwellings, and from their wan colour. *Cato* frees ſhorn Sheep from Lice with Oyl lees well putrefied, and the beſt lees of ſtrong wine, and a decoction of Lupins added to them, and anoynting them with it, then let them dry two or three dayes, and after that waſh them with Sea-water. The Engliſh Shepheards ſheer them, and then anoynt them with Tarre and Sheeps ſuet; or elſe they bruiſe the root of Acorus, and boyl it in water, and they foment their bodies with the warm decoction. Some uſe nothing but Tarre, others uſe the root of *Mandragora*; but care muſt be had that the Sheep taſte it not, for fear of the great danger of ſtupefaction that it will cauſe. Others boyl the root of Cypreſſe, and with that boyled they waſh their Sheep. *Diophanes in Geopon.* Againſt Dogs Lice the Ancients bid us to anoynt their ears with Oyl of bitter Almonds and of Walnuts; experience confirms that remedy. Alſo *Nemeſianus* teſtifieth as much.



'Tis good to noynt their ears, and ſet them in the Sun,
Or uſe a red hot knife, when Lice are firſt begun.

Rhaſis commends againſt *Aſchardes* of Dogs or Dog-lice, to waſh them with Wine, and Vinegar, Cummin-ſeed and Salt-water. *Theomneſtus* and *Cato* prepare oyl of bitter nuts, and with that they anoynt their claws and ears, and ſecrets alſo. Tarre of Cedar kills them. *Dioſcorides.* But *Columella* forbids to pull off Tikes from Oxen and Dogs, leſt the places ſhould exulcerate, and he highly commends Tarre and Hogs greaſe. *Pliny* ſaith the juice of both Chamæleons will deſtroy them. *Albertus* reports that Tikes bloud will cleanſe Ulcers, and if they be infuſed in wine they will preſently make one drunk. *Serenus* farther commends them for to cure a Fiſtula in *Ano.* The Uſe.

If that new ulcers in the ſecrets chance to breed,
Chew'd Bramble-leaves apply, you quickly ſhall be freed.
Or if from an old ſore a Fiſtula do grow,
A Weaſils aſhes burnt will help't; and further know,
The bloud of an Ox Tike is no means elſe below.

Alſo the bloud of a Tike will cure the Shingles. Alſo men ſay, that a Tike pulled out of the left ear of a Dog, if it be tied on, it will cure all pains. *Pliny* writ this out of *Nigidius*. Alſo he aſſerts that if a womans loyns be anoynted with the bloud of it, ſhe will abhorre venery. Moreover nine or ten Goats Tikes taken in wine, will ſtop the terms. *Dioſcorides*. Anoynt your eye-lids with the bloud of a Tike taken from a Bitch, the hairs being firſt pluckt off, ſaith *Galen, Simpl.* 10. *c.* 5. and they will never grow again: So alſo *Pliny* and *Avicenna* write, but it is from other mens opinions. *Dionyſius Meleſius* preſcribes ſuch a Depilotary againſt pricking thorny hairs: Burn a Sea-hare in a new earthen pot, and keep the aſhes with Tikes bloud in a horn box, uſe this, firſt pulling out the hairs. Many *Engliſh* men have learned by experience, that one dram and a half of Sheeps Lice given in drink will ſoon and certainly cure the Jaundies.

CHAP. XXVII.

Of the Garment-eating Moth.

PEnnius beginning to write the hiſtory of this Inſect, ſaith that *Tinea* is a word that ſignifies many things; as Lice of Hawk-weed according to *Albertus*, Wood-lice in *Plautus*, the plague of Bee-hives in *Virgil*, and it ſignifies the creeping ulcers of the head, that are eaten like to garments, whence it may be *Claudian* writes;

The filthy Moths have gnawn the loathſome head.

Gaza tranſlates κάμπας *Tineas*, but very ignorantly, as we obſerved in the hiſtory of Catterpillars. Alſo *Pliny* ſaith that *Tinea* do deſtroy the ſeeds of Figs, he means the Worms that breed in Figs, from whence grow ψῆνες. *Niphus* cals that little Scorpion which eats books *Tineas*, whereof I ſpake in the hiſtory of Scorpions. But Σὴς and σκώληξ, if a man will ſpeak properly, is a Worm that eats garments. It is called in *Latine Tinea, a tenendo* from holding, for it ſticks faſt in garments, and will not eaſily change its ſtation. The *French* call it *Teigne*, the Spaniards *Tina*, the Italians *Tignola*, the Muſcovites *Mel*, the Polonians *Mol*, the Engliſh *Moth*, the Hebrewes *Hbaſch*, and *Sas*, as you ſhall finde it *Job* chap. 13. and *Iſai*. 51. It is a little Worm of a wan white colour, of which ariſeth that ſmall kinde of Flie that will fly at night about the Candle-light. There are ſome of them that are ſilver-coloured, the Engliſh call them ſilver-moths, the Dutch *Schietes*, from their ſwift motion. *Niphus* greatly erred, making this the Scorpion amongſt Books. There is alſo a certain Worm that is thick, or with a coat, ſaith *Pliny*, called *Tinea*, that drawes its coat along with it, as a Snail doth its ſhell, and when ſhe is deprived of this ſhe preſently dieth. But if this coat grow too great, it changeth to a *Chryſalis*, out of which at a ſet time a little Glow-worm comes. This kinde hanging by a thred, hangs a long time in houſes before it changeth to an Aurelia. It hath a little black head, the reſt of the body is a whitiſh dark brown, the Caſe of it is ſomething long, made almoſt of a Cobweb, not round at all, but lightly compacted, and at each end ſomething hairy. The Phalenæ that come from thence ſtick by the feet to the roofs of houſes, untill their bodies being corrupted and putrefied they are bred again: when their bodies corrupt, and their wings and feet fall off of themſelves, they hang with a thred by the tails. At length they get a Caſe and are turned into this kinde of Moth. In *Germany* and *Helvetia* there is a Moth of a ſad red colour, with a little thick head, the body grows by degrees ſmaller even to the tail. The colour of its belly is lighter, ſomething yellow, and like a ſoft downy ſilk. It is a very tender Creature, eſpecially that which is ſilver'd over, and it is bruiſed to pieces if you do but touch it. Whence that Kingly Pſalmiſt, Pſal. 39. *When thou with chaſtiſements ſhalt correct man, thou makeſt him to conſume away as a Moth*. And *Job*, Chap. 40. he amplifying the certain deſtruction of the wicked: *They ſhall be bruiſed* (ſaith he) *before the Moth*. All Moths are reckoned amongſt the number of ſix-footed Creatures, and they breed in Garments as well of Wooll, as skins that are not cleanſed from duſt and filth: and ſo much the ſooner if a Spider be ſhut in, as *Ariſtotle* writes. For the Spider drinks up all their inbred moyſture, and dries them; wherefore care muſt be had that garments be not layd up full of duſt, and when the Air is thick and moyſt. Some to avoid Moths, ventilate their garments in the hot Sun-ſhine: which our women ſeverely forbid, and lay them up in the ſhade, and when the winde is high and very cold. For they hold that the Sun-beams are kindly for Moths, but windes and tempeſts and the ſhade are enemies to them. Theſe Worms when they have by degrees inſenſibly eat off the outmoſt ſuperficies of the cloth, then they eat up the inward part, and ſo inſinuate themſelves into the middle ſubſtance of it, that thoſe that ſearch never ſo well for them can hardly finde them. The Ancients were moſt expert to kill Moths. For the garments of *Servius Tullius* laſted to the deſtruction of *Sejanus*, for they were kept with ſo great diligence by the keepers of the Wardrobe, that they neither conſumed by age, nor were Moth-eaten. They that ſell woollen Clothes, uſe to wrap up the skin of a Bird called the *Kings-Fiſher* amongſt them, or elſe hang one in the ſhop, as a thing by a ſecret Antipathy that Moths cannot endure. They are handſomely deſtroyed by the ſent and ſmoke of Savin, Hops, Fingerhood, Wormwood, Roſemary, Poley, Panax, Aniſeed, Golden-flower, Pomegranates, Citron-pills, (for this was the chiefeſt uſe of Citrons in old time) the out-landiſh Myrtle, Cedar, Cypreſſe, Calamint, Brimſtone, Downy feathers. The Books that were found in *Numa* his Tomb, were ſaid to be anoynted with the juice of Cedar: wherefore as *Pliny* writes, they were ſuppoſed to be free from Moths above 530. years. The bones of *Bergeſterts* (I know not what beaſt it is) being brought to powder, and ſtrew'd amongſt garments, will drive away Moths, if we will credit *Hildegard*: *Rhaſis* reports that Cantharides hung up in the middle of the houſe will do as much: Who ſaith moreover that garments wrapt up in a Lions skin, will never have any Moths. Some wet a a linnen cloth in a ſtrong lie, and dry it in the Sun without preſſing it, and they affirm, that clothes wrapt in that will not be Moth-eaten. *Cato* bids ſprinkle your Wardrobe with Oyl-lees. That which *Pliny* reports is a wonder, that a Cloth laid under the Biere of a dead body, will never have Moths to hurt it. The richer people, who (as *Horace* writes)

Whoſe hangings rot in Cheſts, rich for the Worms and Moths,

take diligent care in Summer to look up their garments, and taking them out of their Coffers, they air them in open place for the winde, and then they beat off the duſt with the leaves of *Indian* Millet, or Hogs briſtles, or Broom Moſſe, or with Worm-wood branches. Of old they were wont to do it with an Ox tail; for ſo *Martial* writes;

If that with yellow duſt thy coſtly clothes abound,
Thou mayſt with an Ox tail bruſh't off upon the ground.

There are alſo rich Merchants, that have Cedar and Cypreſſe Cheſts, and they put up powder of Origanum, Worm-wood, Orris, Citron-pills, Myrtle-berries with their clothes, and by ſuch remedies they drive far from them this Wooll-devouring Creature.

We writ before amongſt the ſix-footed Worms, of Worms in books, wood, the skin, the fruit devourers. I have nothing more to add to this Chapter, but only to exhort rich men to lay up their treaſure there, where neither Moths ſhall eat their garments, nor ruſt conſume their Silver; and let them in the mean time leave off that infinite expenſe in clothes, of which can they look for any better end, to uſe the words of the *Lyrick* Poet,

Than to feed black Bugs, and the Lazy Moths?

If a man, ſaith *Calvin*, born of a woman, having but a ſhort time to live, and alwayes waxing old, and corrupting, would think himſelf to be like a garment that Moths eat, certainly he would lay aſide all pride, and bluſh, and fall lowly upon his knees unto Almighty God.

CHAP. XXVIII.

Of the Flea.

THe *Latin* word *Pulex*, in *Greek* ψύλλα or ψύλλος, comes ſaith *Iſidore*, from *Pulvis*, duſt, or the ſon of duſt; in Spaniſh *Pulga*, Italian *Pulice*, French *Puce*, Engliſh *Flea*, the *Germans* from its nimbleneſſe in flight call it *Floch*. Fleas are not the leaſt plague, eſpecially when in greater numbers they moleſt men that are ſleeping, and they trouble wearied and ſick perſons; they eſcape by skipping from us, and ſo ſoon as day breaks they forſake the bed. They are a vexation to all men, but eſpecially, as the wanton Poet hath it, to young maids, whoſe nimble fingers, and that are as it were clammy with moyſture, they can ſcarce avoyd. Theſe Fleas are either common or extraordinary. The common ones are ſmall Creatures about the bigneſſe of Lice, but their bodies are ſofter, and they are bunch-backt, almoſt like a Hog, they are black and ſhining, their breaſt and belly is yellow from black, in white Dogs they are more clear, in red more yellow, in black Dogs blacker than in others. Here I deſire you to obſerve the wonder of Nature, that their hinder little legs are bent backwards toward their bellies, and their forelegs toward their breaſts, as four-footed beaſts are, as it is uſual almoſt in all Inſects to whom Nature hath given but four feet. It may be for that end the joynts of Fleas are ſo diſpoſed, that they may with the more eaſe hide themſelves in the long foldings and plights of the blankets from thoſe that hunt after them. The ends of their feet are divided into two parts, and are hooked and ſharp, and ſeem as it were to be horny, not only that they may more ſurely creep up upon high places, but alſo that they may ſit and ſtick faſter to the ſmooth skin: They have a little head, and a mouth not forked but ſtrong and brawny, with a very ſhort neck, to which one *Mark* an *Engliſhman* (moſt skilfull in all curious work) faſtned a Chain of Gold as long as a mans finger, with a lock and key ſo rarely and cunningly, that the Flea could eaſily go and draw them, yet the Flea, the Chain, lock and key were not all above a grain weight: I have alſo heard from men of credit, that this Flea ſo tied with a Chain, did draw a Coach of Gold that was every way perfect, and that very lightly; which much ſets forth the Artiſts skill, and the Fleas ſtrength. The point of his nib is ſomething hard, that he may make it enter the better. It muſt neceſſarily be hollow, that he may ſuck out the bloud, and carry it in. They ſeek for the moſt tender places, and will not attempt the harder places with their nibble; with two very ſmall foreyards that ſpring out of their foreheads, they both prove their way, and judge of the nature of the object, and whether it be hard or ſoft: where they bite they leave a red ſpot as a Trophie of their force, which they ſet up. In rainy weather they bite ſorely, and are bold to run over ever part of mans body. They have but one ſmall inteſtine with folds inward, which is either relaxed or contracted as they eat more or leſſe. The leſſer, the leaner, and the younger they are, the ſharper they bite, the fat ones play and tickle men more willingly. It is very probable that they have eyes, both becauſe they chooſe their places of retreat, and becauſe they withdraw themſelves when the day breaks. They will not ſit upon corrupt or dead fleſh. Thoſe that have the Kings evil, becauſe they are of bitter juice, and ſuch as will die, becauſe of the corruption and ſtink of the ſame, they will not meddle with. At all times they trouble men and Dogs, but chiefly in the night. Though they trouble us much, yet they neither ſtink as Wall-lice doe, nor is it any diſgrace to a man to be troubled with them, as it is to be lowſie. They only puniſh ſluggiſh people, for they will remove farre from cleanly houſes: when they finde they are arraigned to die, and they feel the finger coming, on a ſudden they are gone, and leap here and there, and ſo eſcape the danger: whileſt thoſe that hunt them endeavour to meaſure their jumps, as *Ariſtophanes* ſaith, they but play the fools. In the morning, after they have fed, they creep into the rough blankets, and ſtick to the walls, or elſe they hide themſelves in the ruſhes or duſt: and ſo they ly in ambuſh for Pigeons, Hens, and other Birds, alſo for men and Dogs, Moles, Mice, and vex ſuch as paſſe by. Our hunters report, that Foxes are full of them, and they tell a pretty ſtory how they quit themſelves of them. The Fox gathers ſome handfulls of wooll from thorns and briars, and wrapping it up, he holds it faſt in his mouth, then he goes by degrees into a cold River, and dipping himſelt in by little and little, when he finds that all the fleas are crept ſo high as his head for fear of drowning, and ſo for ſhelter crept into the wooll, he barks and ſpits out the wooll full of Fleas, and ſo very froliquely being delivered from their moleſtation, he ſwims to land.

Their firſt Originall is from duſt, chiefly that which is moyſtned with mans or Goats urine. Alſo they breed amongſt Dogs hair, from a fat humour putrefied, as *Scaliger* affirms. A little corruption will breed them, and the place of their originall is dry filth. *Martyr* the Author of the *Decads* of Navigation, writes, that in *Perienna* a Countrey of the *Indies*, the drops of ſweat that fall from their ſlaves bodies will preſently turn to fleas. Some Countreys are ſuch enemies to Fleas, that if they be brought in thither they cannot live, nor will they breed there; as in the Territory *Teſethor* of *Sigelunum*. Contrarily the City *Hea* by the ſea-ſide, (unleſſe *John Leo* deceives us) is moſt fruitfull for Fleas, by reaſon of the abundance of Goats, as alſo *Dede*. In *Hiſpaniola* Fleas are found, but neither many, nor great ones, but they bite more fiercely by farre than ours doe: they love hot places, where the Sun ſhines. In the Spring they multiply, at the beginning of Winter they die, for they cannot endure the cold. They copulate, the male aſcending upon the female as Flies doe, and they both goe, leap, and reſt together. They ſtick long together, and are hardly pulled aſunder. After copulation preſently almoſt, the female full of Egges ſeems fatter; which though in her belly they ſeem long, very ſmall, very many, and white, yet when they are layd, they turn preſently black, and turn into littles Fleas, if we may grant what *Pennius* ſaith, that bite moſt cruelly. *Philoponus in lib. de generat.* maintains that Fleas breed not Egges but Nits, and *Niphus* ſaith the ſame: But they endeavouring to prove this becauſe they crack when they are cruſht, doth not confirm their opinion, for Egges will not break under the nail without cracking. *Ariſtotle* thinks, that from them, be they Egges, Nits, or little Worms, no other Creature breeds, and I ſhould willingly ſubſcribe to him, but that I think Nature made nothing in vain. Thoſe Fleas ſeem to be more rare that *India* produceth neer the River *Nigua*, as we learn from *Thevet*. They chiefly ſeize upon the ſofteſt parts of the feet under the nails, and bite venomouſly. After four dayes they raiſe a ſwelling as great as a peaſe, or a Chich peaſe, and young ones like to white Nits; and if all theſe be not forthwith picked out, and the place affected burned with hot aſhes, the part will be loſt, as it falls out often with the Slaves in *Numidia*. He alſo in the Province of *Peru* was ſubject to this miſchief, and could not recover but by waſhing himſelf in the River very often.

L. 9. ſubtil.

Cardan writes of a little Flea. The *Weſt-Indies*, ſaith he, brings forth a kinde of Flea called *Nigua*, a very ſhrewd plague. This creature is far leſſe then a Flea, that ſticking to a man will ſo torture him, that ſome loſe their hands, others their feet. The remedy is, to anoynt the part with Oyl, and ſhave it with a Raſor: To whom *Scaliger* anſwers thus. Thy ſtory of *Nigua* is lame, yet not unprofitable if you conſider Philologie: I ſhall adde what you have omitted.

Exer. 94. n. 8. ad ſubtil. Cardan. 23.

This little Flea hath a moſt ſharp nib, and invades chiefly the feet, (ſeldome other parts) not only when men goe, but lye down alſo. Therefore the *Indians* lie high. Moſt frequently they bite that part which is under the nails. The fourth day the ſwelling begins to increaſe, and grows to the bigneſſe of a great peaſe. This ſwelling is full of young Nits; they pick out theſe, and lay on hot aſhes. *Benzo* ſeems to ſay the ſame. The *Indians* are mightily troubled with venomous Inſects. Amongſt the reſt the *Nigua* about the bigneſſe of a Flea, inſenſibly creep in between the fleſh and the nails eſpecially, and they are bred in the duſt. It falls out oft times that no pain is felt by them, till they grow as great as Chich peaſen or Lentils; and then, with a wonderfull

In Navig. hiſt.

plenty of Nits bred, they are hardly pickt out with a needle or thorn: and this miſchief is cured with hot aſhes. Moreover, the ſlaves of *Africa* that the *Spaniards* have in their families, becauſe they go barefoot, are ſhrewdly troubled with this plague, and they breed ſuch numbers in their feet, that there is no remedy for them but the iron inſtrument of the fire, whence many of them want their toes or their feet. Fleas will dye from extreme cold, and therefore in the colder winter they are not to be ſeen; or elſe we kill them when we can catch them. And one dog will as willingly bite out the Fleas of another dog, as they will ſcratch one the other. Alſo moſt bountiful Nature hath ſupplied us with a large field of remedies, that the Fleas that hide themſelves, and leap away from us, may be deſtroyed by us, and we preſerved from them. For we have herbs, Dwarf Elder-leaves, Fern-root, or Anchuſa, flowers of Penniroyal, Rue, Coloquintida, Brambles, Oleander, Mints, Horſe-mints, Hops, Rape-ſeed, Cumin, Staves-acre, Fleabane, Conyta, Saffron, Coriander, Celendine, ſweet Cods, wilde Cicers, Arſemart, Muſtard, Lupins, roots of Chamælea, Hellebore, leaves of black Poplar-tree, Bayes, Walnut-tree, with the oyls of theſe, or the boyl'd decoctions, if the pavement be ſprinkled, or the houſe be perfumed, the Fleas will be gone, and moſt of them are killed. Above all, the dregs of Mares-piſſe, or ſea-water are commended, if they be ſprinkled up and down; alſo Harts-horn burnt is very good. Goats bloud ſet in a baſon or a pit, drawes all the Fleas to it, as alſo a ſtaffe anointed with the fat of a Hedgehog or Cony, Ape, Bear, Bull, or Fox, will do the like. The water of the decoction of Arſenick or Sublimate ſprinkled, is a certain experiment to deſtroy them. Quicklime mingled with the juice of white Hellebore, doth the ſame. A Gloeworm ſet in the middle of the houſe, drives away Fleas. Fleawort in the City of *Chtire* is powdred, and the powder is ſtrew'd about the beds, which by its ſmell doth aſtoniſh the Fleas that they will not bite. If a Flea get into ones ear, pour in Oyl mingled with a little Vinegar or juice of Rue, oyl of Spike, Turpentine, or oyl of Peter, is very uſeful. Theſe remedies may ſerve the turn, which are taken from *Apſyrtus*, *Varro*, *Columella*, *Galen*, *Aetius*, *Palladius*, *Avicenna*, *Rhaſis*, *Kiramides*, *Guilielmus*, *Placentinus*, *Joanicius*, *Bellunenſis*, *Hermolaus Barbarus*, and *Pliny*. The *Barbarians* (ſaith *Lereus*) that the Fleas may not bite them, anoint themſelves with oyl that is thick and red, preſſed out of fruit, which they call *Courog*. *Petrus Galliſardus*, *Cælius Chalcagninus* and *Tzetzes*, are reported to have written the commendation of a Flea; it was my deſire to have ſeen this, but it was never my chance.

Chap. XXIX.

Of Inſects that want feet, and firſt of Earth-worms.

Some earthly Inſects that have no feet are bred in the earth, ſome in living creatures, ſome in plants. *Earth-worms* by *Plautus* and *Columella* are called *Lumbrici*, may be from their lubricity. Alſo they are called the entrails of the earth, both becauſe they are bred in the bowels of the earth, and becauſe being preſſed, like the entrails of living creatures they caſt forth excrements, alſo becauſe they are like them in form and faſhion. The Greeks call theſe γῆς ἔντερα, ἰμβύνως *Heſichius*, and the Syracuſians, γαΐγας; the Engliſh *Meds*, *Earth-worms*; the French, *Vers de Terre*; the Italians *Lumbrichi*; the Spaniards *Lombriz*; the Germans, and thoſe of Flanders, *Erdwurmen*: the Arabians, *Charatits*. *Manardus* writes, *l.* 2. *ep.* 4. that Earth-worms were called *Oviſculi*. Earth-worms are *greater* or *leſſer*.

The great ones, are long Worms, almoſt like thoſe round ones that are bred in mens bellies, half a foot long, and ſtretched out a foot long; they are of a weak fleſh-colour, and for the moſt part they have a ring or elſe a collar about their neck that is thick, wherein there is a little bloud contained: they have no eyes, for no Worms have any. They firſt breed of putrefied earth, they are afterwards fed by the ſame, and laſtly they are reſolved to earth again. Thoſe that you ſee wreathing little hils at the brink of their holes, as I ſuppoſe thoſe heaps are their excrements; for in them we finde nothing but earth, the nutrimental juice whereof being ſpent, they caſt forth the reſt as unprofitable matter at their doors, and they are fenced by it againſt the rain falling in. At night chiefly when it is rainy weather, they willingly copulate, and ſtick faſt till morning. They are not wrapt together in copulation like Serpents, but they ſtick faſt together by their ſides, ſending forth a frothy kinde of ſpittle when they copulate: when they are in conjunction, they keep the middle of their bodies, that is the hinder half in their holes, and they are never ſo faſt glewed together, but with the leaſt motion of the earth they can eaſily part: in rainy weather they are whiter, unleſs it be when they copulate, for then eſpecially they are red. *Geſner* ſaith in the middle of *April* he diſſected a female Earth-worm, that was very thick, within the fleſh through the whole body, a receptacle deſcends, that is ringed, covered with a thin membrane: when he diſſected it, it ſtank filthily: in this is the earth contained that they take in; but above this receptacle there lie white eggs very many heaped together, next the mouth.

The leſſer Worms, for clearer deſcription ſake, I will with *George Agricola* call *Aſcarides*, they are frequently found in dung-hils, and under heaps of ſtones: ſome of them are red ones, they call them *Driggs*, and fiſhers much deſire them; ſome are wan-coloured, others have *yellow tails*, and are ſo called; ſome alſo are with collars and are fat, others without collars and ſlender, which I take to be the males. Theſe are bred chiefly in Autumn by reaſon of no plenty of moiſture, as *Ariſtotle* ſeems to affirm. Both kindes live long in water, but at laſt they die for want of food. They move from place to place with a certain drawing and pulſation, for the Philoſopher ſaith they do not properly tumble along. The *great ones* live in the bowels of the earth, eſpecially in the open air, and where men oft-times reſort. In the morning when they withdraw themſelves into their holes, when the air is clear they fence them with earth caſt up, but in rainy weather, they ſtop them by drawing in ſome ſtalk, they feed freqrently on earth, but moſt greedily on a piece of white bread unleavened, as I learned from our *Turner*, a very credible man, and have oft-times ſeen it. Many of them dye if the Winter be too cold, or the Summer too hot. Moreover they are taken by Fiſhermen, and driven forth of their holes either by digging, and ſhaking the earth, or by pouring in ſome liquor of ſtrong juice, as of Walnut leaves, Hemp, or ſtrong Lye. It is good alſo in tempeſtuous and dark nights to go into gardens ſilently, (which they miſerably hurt) and to creep upon them when they couple, by the help of fire carried in a horn: for ſo in one night thouſands of them may be intercepted and killed.

The Uſe. Uſes of this deſpicable creature are obſerved to be many; and Nature ſcarce affords any ſimple that ſhe hath beſtowed more vertues on againſt diſeaſes. For Earth-worms ſoften, glew together, eaſe pain, and by their earthly and watry moiſture together, they duly temper the part affected. Powder of Earth-worms is thus prepared: Wrap up great Earth-worms for ſome time in earth-moſs, that ſo they may free themſelves of that glutinous matter that ſticks on their outward parts; then preſs their hinder parts next the tail, that they may caſt forth their excrements and be cleanſed. Then caſt them into a veſſel of white Wine and a little Salt, and gently preſſing them with your fingers, caſt away that firſt Wine: pour on more, and after the Worms are waſhed, take ſome part of this away alſo: for it muſt not all be caſt away, as ſome would have it, till it be perfectly clear, for ſo that glutinous clammy quality would be loſt with it. Thus prepared, they muſt be gently dried in a furnace, till they will crumble into duſt when you touch them. Then the powder being beaten and ſearced (it will ſmell like Runnet or Cheeſe) muſt be kept ſomething far from the fire in a glaſs veſſel. Otherwiſe it is beſt to kill the Worms cut in pieces in Wine and Salt, and when they are dead, to take them out and to cleanſe them. This powder with the juice of Marigolds, will cure the Epilepſie; with Mead, the Dropſie; with white Wine and Myrrhe of the Troglodytes, the Jaundies; with boyled Wine, Hydromel, or Wine, the Stone, the Ulcers of the reins and bladder; you may give a dram weight. In three cyathi of water they will break inward Impoſtumes, and bring them forth, if ſeven or nine of them be brought into powder. They ſtay alſo the Dyarrhœa, help Barrenneſs, bring forth the Secondine that ſtaies behinde, eaſe the pains of the Hip-gowt, open the Liver, cure Tertian Agues, kill and drive out all Belly-worms, given in liquors or decoctions that are proper for it. Alſo the decoction of Earth-worms drank with the juice of Knot-graſs or Comfrey, is good againſt continual piſſing, eſpecially if it be alſo caſt in by a Clyſter. Alſo a Clyſter of their decoction eaſeth the Emrods wonderfully. Some, where they ſuſpect clotted bloud, give the decoction of Earth-worms to drink with great ſucceſs. For the diſeaſes of the Ears almoſt paſt cure, boyl them in Gooſe-greaſe and pour that in. Boyled in oyl for the Tooth-ache, and poured into the ear on that ſide the pain is, as *Pliny* ſaith, they give eaſe, or if you drop them into the contrary ear, as *Dioſcorides* ſaith. Thus far for Earth-worms given inwardly, from experience and teſtimony of *Dioſcorides*, *Galen*, *Aetius*, *Ægineta*, *Myrepſus*, *Pliny*, *Vularis*.

Alſo outwardly applied and bruiſed, they joyn wounds and nerves cut in ſunder, and heal them in ſeven daies; wherefore *Democritus* would have them kept in Honey. Their aſhes with old oyl, cleanſeth corrupt Ulcers; and as *Pliny* writes, conſumes the hard edges of them, if it be mingled with liquid Pitch and *Simblick* Honey, *Dioſcorides* ſaith *Sicilian* Honey is called Simblick. A certain Chirurgion now in *England* of good note, makes a liniment of Earth-worms and Honey, wherewith he anoints the tent, and ſprinkles it with fine powdred Allum, and puts it into a Fiſtula, and ſo brings forth the core eaten out with no pain, and heals the wound. Alſo their aſhes drawes forth things that ſtick within, and laid on with oyl of Roſes cures Kibe-heels. *Marcellus.*

Serenus ſaith, that when the nerves are cut in ſunder, it is good to lay on Earth-worms bruiſed with Hogs-greaſe that is old and rank. *Marcellus Empiricus* adds Groundſel to the Hogs-greaſe and Earth-worms, with the tender tops of Box with Frankincenſe, and this he laies on the nerves cut or pain'd: *Pliny* ſaith that the aſhes of theſe and of a wilde Mouſe, laid on for a plaiſter, with oyl of Roſes, is excellent for broken bones.

For the great pains of Horſes in their nerves or joynts, to help them, *Ruſſius*, *Abſyrtus*, *Didymus*, collect a great number of Earth-worms: whence *Cardan* gathers that they will eaſe all pains. *Mundella* affirms that contraction of the nerves will be cured if you anoint them with oyl of Camomil that is well repleniſhed with Worms. *Marcellus* ſaith that the ſame is done with Honey and Worms, as before. *Aetius* ſaith without doubt they are an excellent remedy for the Gowt boyled in oyl, and a little wax: ſo ſaith *Marcellus*, but he ſometimes mingles Honey with them. *Vigo*, for pains in the joynts, makes a plaiſter of theſe and Frogs, to which he adds Vipers-greaſe.

For pains of the joynts: Take aſhes of Worms iij. ounces, oyl of Roſes, or Foxes, what may ſuffice, mingle them to an ointment. *Another that is ſingular:* Take the marrow of a Calfs leg compleat, and old oyl of Roſes iij. ounces, Earth-worms cleanſed with Wine and Salt ij. ounces, let them boyl in Balneo to the conſiſtence of a Mucilage; with this anoint the neck, ſhoulders, and the places where the pain is, for it gives great help, *Pliny*. *Marcellus* anoints them with Honey, and then he laies on the Mucilage prepared. When any part is waſted and receives no nutriment, cleanſed Worms muſt be put into a glaſs very well luted, that nothing may breathe forth, and ſo ſet in a warm oven or in Balneo, and they will then reſolve into a clammy moiſture; an admirable remedy and approved for the Palſie of the limbs: Take the aſhes of tender Earth-worms iij. poũds, Ginger, Galanga, of each iij. ounces, with clarified Honey incorporate them for an Unguent, with this for three nights together anoint the Patient, binding his arms forcibly over his belly or ſtomach, then cover him warm, and let him beware of cold. *Jacobus de parma* To drive away hoary hairs, women uſe theſe aſhes mingled with oyl whileſt they comb their head, as *Pliny* ſaith, to whom *Serenus* ſubſcribes in theſe verſes:

Earth-worms and oyl of Olives, free from cares;
They will preſerve a man from hoary hairs.

We ſaid before how they cure the Tooth-ache. But further the powder of them rubb'd on will preſerve the ſound teeth, and being injected will make rotten teeth, though it be a grinder, to fall forth; eſpecially, if the tooth be firſt ſcarified, and fill'd with powder well ſprinkled on it. *Aetius*. *Gal.* 5. *ſec. loc.* bids us do almoſt the ſame out of *Archigenes*. Alſo they are good with the root of Mulberries boyled in Vinegar of Squils, to waſh the teeth. For purulent Ears, poured in with oyl they help much, as *Galen* thinks, and cure their inflamations, being boyled with oyl of Roſes. *Aetius*.

If that your hearing fail, an old diſeaſe,
Is cur'd with Earth-worms boyled with Ducks greaſe. Serenus.

Myrepſus bruiſeth Worms with ſome ſmall quantity of the earth from whence they were taken, and works them together, and anoints that upon ears that are bruiſed. *Marcellus* bruiſeth them with oyl of Roſes, *Celſus* with oyl of Olives. *Faventinus* for pains of the ears anointeth the outward parts with oyl of Earth-worms, and alſo pours it into the inward parts. *Marcellus* bids to bruiſe Leeks not planted but ſowed, odd in number, and as many Worms together, and boyl theſe in the beſt Oyl to thirds, and he ſaith that this oyl put into the ears is very good for their greateſt pains and deafneſs. *Abinzoar* cures clefts of the hands and feet with oyl of Earth-worms. For an old pain of the head, they are held very excellent, bruiſed with Vinegar, Frankincenſe, and Caſtoreum. *Galen* for the ſame prepares in his *Euporiſts* ſuch a Remedy: Take xv. Earth-worms, as many grains of Pepper, Vinegar what is ſufficient, mingle them, ſmeer them on. *Another:* Take Earth-worms, Mouſe-dung, white Pepper, Myrrhe, each half an ounce, bruiſe and mingle them with Vinegar, and anoint that part of the head that the pain lies on. *Myrepſus* will have the Worms to be odd, and to be taken only with the left hand, and ſo ſuperſtitiouſly anointed. If thou wouldſt try, ſaith *Marcellus*, whether a ſwelling in thy neck be the Kings-evill, lay a live Worm upon each ſwelling: if it be a ſcrophulous tumour, each Worm will turn to earth; if not, he will be alive and receive no hurt: ſo ſaith *Pliny* alſo. Earth-worms are a part of that noble Plaiſter of *Arnoldus* (2 *Breviarii*) of a Rams ſkin, or the bloud of a man that is red, againſt the Rupture: and *Hollerius* commends it to cure *Enterocele* and *Epiplocele*. They alſo diminiſh the Stone, both taken inwardly, as alſo anointed on the ſhare ſomewhat thick. *Gal.* What concerns womens diſeaſes, bound to the neck they retain the birth, but contrarily applied to the hips, they draw the birth out and the ſecundine, for they draw mightily whereſoever they are applied living. *Plin.* Inflamations of the breaſts, Earth-worms alone laid on will cure, for they concoct, open, draw forth, and heal. *Alex. Benedict.* So *Myrepſus* makes a plaiſter of them bruiſed. Lay on Earth-worms with Quinces, or with dried Barley flour, upon Breaſts hardned or inflamed. *Aetius*. But if after delivery womens breaſts ſwell, and to uſe the words of *Serenus*:

If the ſwoln breaſts do feel great pain,
Smeer them with Earth-worms 'twill help them amain.

For they will concoct the Impoſtumes and ſuppurations of the breaſts, and after concoction will heal them and void out the matter. For the Shingles, the *Indians*, ſaith *Carolus Cluſius*, make an unguent thus: Take Earth-worms, and feed them ſome time with leaves, fine flour, or flour and milk, and when they are grown fat, boyl them in an earthen veſſel (alwaies ſcumming them) when they are ſtrained, boyl them again to the conſiſtence almoſt of a plaiſter, which well prepared will be almoſt of a yellow colour; diſſolve ſome part of this in diſtilled water of Roſes, and waſh the part affected with it twice a day. A moſt excellent remedy, ſaith *Cluſius*, and proved by very long experience. *Pliny* ſaith they will do the ſame in Vinegar, who together with *Aetius* and *Myrepſus*, affirms that Worms bruiſed and laid on the place a Scorpion hath ſtung, are an admirable remedy, for they preſently eaſe the pain, and correct the malignity of the tumour.

Oyl of Earth-worms is known by all to be good ;againſt divers infirmities, and the Ancients made it thus. Take Earth worms half a pound, Oyl of Roſes, Omphacine, two pound, the beſt white wine two ounces, let them boyl in *balneo* till the wine be conſumed. This cures the nerves relaxed, contracted, aſtoniſhed, cut in ſunder, or cooled, it eaſeth almoſt all pains, and waſts the ſtone, being anoynted on the ſhare and loins. But in the preparing of it, every man followes his own opinion. For ſome before they adde Oyl, waſh and purge them with white wine, ſome neither waſh them nor preſſe out the earth, and perſwade to take the beſt wine, that it may penetrate the ſooner: Others uſe ſimple Oyl, not Oyl of Roſes, others again Oyl of Chamomile. Alſo they ſhew us many wayes to boyl them, for one uſeth a furnace, another Balneum, another doth it in dung, and ſome mingle of Chamomil flowers, and of Dill, to aſſwage pains, ſome of Hypericon flowers to glew wounds together, others Snails without ſhells, others with ſhells, every one as he thinks fit. The Author of *Bartapalia* prepares an admirable water of Worms, *fol.* 254. that is very good for wounds and diſeaſes both outward and inward. *For Worms of Horſes and Oxen Pelagonius*; puts live Earth-worms into their noſtrils, yet it were far better with a horn to put them down their throats into their ſtomacks. *Tardinus* bids give aſhes of Earth-worms bruiſed with fleſh to a Hawk, when ſhe cannot mute. They are alſo meat for Moles, and when they dig, they will break out of the earth in wonderfull haſte. Sows (as *Varro* writes) will trouble the mud, and dig up the earth with their ſnouts to feed on them. *Albertus* ſaith that Toads, *Bellonius* Lizards, *Tarentinus* that Sea Grampets, and experience ſaith, that Frogs, Eels, Gudgeons, Carps, Roches, Trouts, Darcæ, and Tenches will greedily devour Earth-worms. Alſo that bird *Ariſtotle* calls Αἶξ, ſome call it *Vangellus*, and Hens, and all Quails will feed on Worms. But thoſe are no wiſe Fiſher-men, that cauſe Worms to come forth with medicinal juices, for when they are bitter the Fiſh will not bite, but if they lie a day in Wheat-meal and a little Honey, and then put upon the hooks, they reliſh better then *Ambroſia*: And it is no ordinary good we may receive by them, that they foreſhew rain when they ſuddenly come forth of the earth, but if they lie hid the night before, it is a ſign of fair weather. Some do harden Iron like Steel thus. Take Earth-worms two parts, Radiſh-roots one part, bruiſe them, and diſtill the water in a Limbeck. Or take diſtilled water of Earth-worms three pound, juice of Radiſhes one pound, mingle them, let Iron hot be often quenched in this water, and lie in it ten dayes, and it will grow very hard. *Another.* Take Earth-worms two pound, juice of Radiſh one pound, diſtill them at an eaſie fire, and temper your Iron with this diſtilled water. Alſo draw forth juice of Sorrel, ſtinking Hemlock, and of round Ariſtolochia, of each alike, and temper your ſteel often. The juice of Sow-bread is thought to do the ſame. Mr. *Fakenham* a famous Phyſitian writes thus. *Another.* Take Goats bloud, adde to it a little ſalt, let glaſed pots be buryed in the earth, well luted for thirty dayes, then diſtill the bloud in *Balneo*, and put as much of the diſtilled water to the ſame quantity of the water of Worms. *Another.* Take water of Worms, Rapes, roots of Apple-trees, each alike, diſtil them apart, and mingle equal quantities together, and quench your Iron in that water, as we ſaid before. *A Frenchman nameleſſe.*

CHAP. XXX.

Of Worms in living Creatures.

The Name. *Iſidorus* thinks they are called *Lumbrici* from *Lumbi* the loins. For the Ancients call the belly *Lumbos* and γαστρίδας by *Heſichius*, and *Suidas*. Some interpret that, thoſe that are ſick of Worms. But more rightly from Earth-worms, which they repreſent in form and nature, doe they borrow that name. *Cornelius Celſus* calls them Worms, *Pliny* the living Creatures of the entrails. The *Greeks* call them ἕλμινθες, λίμινθες, ἕλμεις, ἕλμιγγες, δρῖλοι, and when they are extraordinary great, θνεία, as appears out of *Ælian, l. 9. c.* 33. You muſt obſerve, that *Latin* writers make difference between *Vermes* and *Vermina* or *Verminationem*, that is Worms, and diſeaſes from Worms in the belly ; for *Vermina* and *Verminatio*, are the pains of the belly from Worms, as *Celſus, Serenus, Pliny*, and *Seneca Epiſt.* 97. teſtifie. The Arabians call them *Emicar*, Sylvaticus *Elingen*, the Germans *Spulworm, Bauchworm*, the Engliſh *Gutworm*, the Sclavonians *Sskrkawka*, a word The Deſcription. hard to be pronounced. A belly-worm is a living Inſect, without feet, bred in the bodies of living Creatures, hurting their operations diverſly. I ſaid a living Creature, that I might exclude thoſe broad Worms called *Tæniæ*, which though they be of ſubſtance that grows to the guts, and are in form like to living Creatures, yet they cannot properly be accounted living Creatures, as *Hippocrates* 1. *de morbis*, rightly affirms. I ſaid an *Inſect*, both becauſe they are of a round body, and becauſe the Ancients do not reckon them amongſt Serpents, nor have hitherto ranged them into any proper Claſſis. I ſaid *without feet*, that I might diſtinguiſh them from Worms with feet. I ſaid *bred in the bodies of living Creatures*, becauſe they are not only bred in the guts of living Creatures, but in all the fleſhy parts, and in the heart it ſelf, as it ſhall appear by the hiſtory. And not only men are troubled with them ; but alſo Horſes, Calves, Dogs, Hogs, Hawks, and all perfect Creatures. I ſaid *that diverſly hurts actions*, becauſe from them, pains, Conſumptions, Convulſions, Epilepſies, Frenſies, and divers other miſchiefs follow, eſpecially if they be very great, or very many.

And all theſe Worms breed either in parts that are alive or dead. The worms in living Creatures ſeem to be of three ſorts, the *round Worms*, *Gourd-like Worms*, and *Aſcarides*, ſuch as are bred often in the Inteſtines of living Creatures: And not there only, but in other veſſels and bowels; of which matter I finde there was a great controverſie amongſt the old Authors. For *Galen* 1. *l. de loc. aff. c.* 5. aſſigns certain diſeaſes to certain parts, as worms to the guts, the Stone to the reins and bladder. But I my ſelf with many other perſons of the Univerſity, ſaw a ſtone as great and like a Pigeons Egge, voided by ſtool, at *Cambridge*, by Dr. *Larkin* the Kings profeſſor in phyſick, who was long tormented with a pain of the Colick, and waſting, and he voided that ſtone in the ſame form and magnitude, as a moſt troubleſome birth at his fundament. *Montuus* and *Benivennius* write that they ſaw the like. Alſo by giving but one Clyſter to the choiſe wife of noble *Leonardus*, I brought forth 35 ſtones like to Medlar ſeeds, at one time in the year 1583. Many there are that queſtion the credit of *Pedemontanus Arculanus*, *Guainerius*, *Trallianus*, *Benivennius*, and *Montuus*, becauſe (beſides the opinion of *Galen*) they have written that they have more then once ſeen ſtones in the head, lungs, greater veins, the gall, bladder, under the tongue, in the joynts, and belly. But ſince daily experience doth clear them from a lie, we may ſay that the *Greek* ſpeak, as *Greeks* were wont to doe, but that theſe men ſpeak but the truth. *Galen* might have remembred, that *Hippocrates*, *Epid.* 5. *ſec.* 12. did not raſhly affirm, that there was a ſharp ſtone preſſed out of a womans matrix, by the hand of the Midwife, as great as the whirle of a Spindle. This I thought fit to premiſe, leſt when I ſhall report them, the faith of others and my own experience that worms are bred almoſt in every part, others ſhould think I relate either a thing very ſtrange, or what is falſe. Worms ſeldome appear in the moſt vehement pain of the *Hemicrania*, yet *Hollerius* teacheth that it ſo comes to paſſe ſometimes, *l.* 1. *c.* 1. The *Polonians* call this diſeaſe *Stowny Roback*, the Germans *Hauptwurm*, and it was formerly frequent in *Germany* and *Hungary*, and all that were taken with it fell into the frenzie, or madneſſe, and when they were dead, and their brains were opened, a Worm was found there. Then the Phyſitians gave Garlick with diſtilled wine once or twice a day, and all that drank of that recovered, the reſt dyed. *Philip Shot* cured five of his ſervants that were ſick of that diſeaſe, with the ſame remedy, as one writ in a Letter to *Geſner*. That Worms are often ſeen in the brain, *Thomas a Vega* ſaith, *com in cap.* 5 *l. de loc. aff. Galeni*, and *Balthaſar Conradinus c.* 10. *de feb. Hungar.* Alſo *Cornelius Gemma*, *in Appendic. operis Coſmocritic.* diſputing of a peſtilentiall Semitertian, ſpeaks of a woman in a city neer the river *Moſa*, that had a long and vehement pain in her head, when ſhe was dead of it her brain was opened, and there was found a great quantity of filth, and abundance of Worms. That diſeaſe is known ſaith *Rhaſis*, by the internall corroding of the forepart of the head, and by the moſt vehement pain, that almoſt makes them mad. It is cured by neeſings, and juices caſt up into the noſtrils, that wil kill Worms. *Rhaſis*, *l.* 1. *c.* 9. But the Worms that are yearly found in the brains of Stags, and ſometimes of Goats, Sheep, Rams, (chiefly thoſe that are fat) that Hunters and Butchers know better, than that I need to tell them. They are as big as the greateſt Worms, and of the ſame form with them, as *Alexander Benedictus* and *Matthiolus* report. *Theophraſtus* mentions theſe *Hiſt. lib. c.* 53. and *Alexander Trallianus*, *l.* 1. *c.* 15. It is reported that *Democritus* of *Athens*, when he was young was troubled with the Falling ſickneſſe, and he went to ask counſell of the Oracle of *Apollo*, and *Apollo* anſwered him thus:

Take a tame Goat that hath the greateſt head,
Or elſe a wilde Goat in the field that's bred,
And in his forehead a great Worm you'l finde,
This cures all diſeaſes of that kinde.

The young man was much troubled at this anſwer, and he repaired to *Theognoſtus Democratius*, that was then ninety yeers old, to tell him the meaning of the Oracle. This *Theognoſtus* told him that nothing could be plainer, for he had learned by long experience, that there were Worms in the heads of Sheep and of Goats, that being wrapt in a black Sheeps skin, and hanged about ones neck, would miraculouſly cure the Falling ſickneſſe. Some write, as *Pliny* witneſſeth, that two Worms are found in the head of a downy *Phalangium*, which Worms bound up in a Deers skin, and bound to a woman before the Sun-riſing, would hinder conception. Concerning Worms *of the Abdomen.* A woman, ſaith *Pennius*, that I knew very well, told me that ſhe had ſeen more than once, ſome round Worms, that crept forth of the belly by the Navel.

The Ancients alſo ſay, that oft-times Worms will breed in the ears, againſt which they preſcribe theſe remedies. Take the juice of wilde Cucumbers, and the juice of Garden-ſage, or that with broad leaves, mingle them both alike, and pour that into the ears. *Gal. l.* 3. *ſec. loc.* where reckoning up the Compoſitions of *Andromachus* for the ears, he highly commends this of *Pritanis* and *Harpalus*. Take Opium two oboli, Myrrhe, Spikenard, Saffron, of each three oboli, burnt braſſe five oboli, and of round and *Sicil* Alum, each one dram, black Hellebore two drams, mingle them with ſod wine or Oyl of Roſes, and apply them to the ears. *Lib. Euporiſt.* 2. he writes, that a Locuſt will deſtroy Worms in the ears, and he bids apply a ſweet Apple to the ear, with a hole in it almoſt quite through, for the Worm will come forth, enticed by the ſweet ſmell of it. *Pliny* much commends the root of Cypreſſe boyled in water, and the urine of a young boy, and the juice of Hemp, Rue, Bramble, and of Capers powred in. Laſtly, many remedies may be fetcht from

Columella, Vegetius, Marcellus Empiricus, Trallianus, Vigo, Tardinus, and all the *Arabians*, and therefore here I ſuperſede, paſſing on to other matters. *Monardus* preſcribed to one that had a Polypus in his noſe, the juice of Tobacco to be injected; whereby the Ulcer was purged, and many little Worms came forth: Wherefore they breed alſo in the noſtrils, (for all the Arguments that *Gabucinus* hath alleadged againſt it) and are not only caſt forth of other parts. Cow-heards know that Worms will breed under the tongue, and the Worm under a Dogs tongue (the carrying of which Worm about one, ſaith *Pliny*, will drive off the biting of a mad Dog) doth prove that ſufficiently: And *Valeſcus* ſaith he hath ſeen Worms under mens tongues. It is known ſufficiently by experience, that the very Breaſt and Lungs are not free from Worms; *Antonius Benevennius, Benedictus Renius, Mundella, Antonius Siculus*, are my witneſſes, who have ſeen them caſt up, not by vomit or reachiing, but even by coughing. Alſo *Alſaranius, Capite de Tuſſi*, writes, that ſometimes a cough is cauſed from living Creatures bred in the hollow of the lungs, and cavity of the breaſt, which being no greater than little Lute-ſtrings, yet when they creep from place to place they make one cough, and when they lie ſtill it ceaſeth. Alſo *Abenzoar Aobomeron. lib. 1. tract. 11. c. 3.* makes mention of them, affirming that the old Phyſitians ſaw and writ of them. *Albertus* and *Gentilis* ſaw ſome in the liver and ſpleen, and *Platerus* in the gall bladder. Wherefore, whatever *Galen* or *Avicenna* may ſay to overthrow this from the perpetual motion of the Lungs, the neerneſs of the heart, and other frivolous Arguments, yet there is no man but will ſay, but that reaſon muſt give place to ſenſe, eſpecially in natural things. There was ſaith *Hieronymus Gabucinus*, a certain Noble woman of *Fanes* (in his Comment of Worms, to which we are indebted for the great part of this hiſtory) when ſhe had a long time been tormented with pain of her ſtomach, at laſt ſhe caſt up a ball of hard flegme, this being diſſected, it ſeemed like a piece of fleſh, and in that there was a Worm, and thus the woman recovered, whom the neighbours thought to be bewitched. *Of Worms of the Reins and Bladders.* When the reins putrefie, or the muſcle of the bladder, oft-times little Worms are caſt out, concerning which I thought good to write theſe hiſtories out of *Pennius*. A woman thirty ſix years old, had great pain of an Apoſtume in her reins, and ſhe conſumed, at length ſhe caſt forth little Worms, a fingers breadth long, which I firſt ſaw in the bottome of her urine, *Anno* 1582. *Randulph* a *London* Phyſician, very learned and pious, when he looked on at the diſſection of the body of one that was dead of the Stone in the kidneys, he found in one of the kidneys that was corrupted, it was wrinkled and putrefied, a Worm of a full length. *Timothy Bright*, a very skilful Phyſician, and to whom we are much indebted for the Epitomie of the Eccleſiaſtical Hiſtory, ſaw a Scholar at *Cambridge* when he lived there, that piſſed out a Worm an inch and half long; but it was not without feet as Worms are, but it had many feet and was very nimble. *Aloyſius Mundella Medicina Dialog. 4. Argenterius cap. de veſic. morb. Rondeletius lib. de dign. morb. c. 17. Scholiaſtes Hollerii lib. de morb. int. cap. de veſic. affec.* (to ſay nothing of *Levinus Cardan*, and my own experience) do ſufficiently teſtifie that ſuch Creatures breed alſo in the bladder: That Worms come forth of the matrix, like to Aſcarides, I did not only ſee at *Frankfurt* in a *German* woman, at eighty years of her age, but *Aloyſius* confirms the ſame in his Epiſtle to *Geſner*, and *Hippocrates 2. de m. mulier.* and *Avenzoar. lib. 1. tract. 2.* have ſaid the like. *Kiranides* writes, that there is a Worm to be found in the matrix of a Mule, which tied to a woman will make her barren. In *India* and the Countreys above *Egypt* there are ſome living Creatures like to Worms in form, (they are commonly called Dragons) they are in the Arms, Legs, Shanks, and other brawny parts, alſo in young children, they breed in ſecret places under their skin, and more apparently: When they have ſtayed there for ſome long time, at ſome end of this Dragon the place comes to ſupputation, and the skin being opened out comes this Dragons head. *Paulus lib. 4. c. 59.* *Soranus* granteth this, but he queſtions whether they be living creatures. Moreover, in the bloud it ſelf ſome living creatures breed, like to Worms, that feed on the body, as *Pliny* writes, *Hiſt. 26. c. 13.* *Plutarch 8. Sympoſ:* who writes, that a young man of *Athens* voided Worms with his ſeed. *Ægineta* ſaw them come forth at the groins and buttocks, as he ſaith *lib. 4.* to whom *Benevennius* ſubſcribes *c. 100.* Alſo they breed under Sheeps clawes, (ſaith *Columella*) and ſuch I have ſeen under the nails of thoſe that were troubled with a Whit-flaw. *And thus farre concerning Worms in the bodies of living Creatures.* But ſuch as breed in dead and corrupt bodies, (whether it be from the diſeaſe or the Chirurgeons fault) want a *Latin* name, but the *Greeks* call them Εὐλὰς, as appears by *Hippocrates*. The Engliſh call them *Maggots*. *Cœlius* would alſo have them called *Eulas* in *Latin*, borrowing the word from the *Greeks*. We will ſpeak of theſe in order. And firſt concerning Worms of the guts, the deſcriptions whereof, the cauſes, ſigns, ſymptomes and cure wil bring much light to the Hiſtory of the reſt.

Remember the Cook of Queen *Mark* that caſt out a Scolopendra by her noſtrils, &c. Mr. *Crane*.

See *de Vera Medend.*

Chap. XXXI.

Of the Deſcription of Worms in the Inteſtines.

VVEE ſhewed before that there are three ſorts of Worms that are bred in the guts. It will be worth our labour to deſcribe what each of them is. The round Worms are the firſt difference, and that manifeſt to all men, becauſe theſe are the moſt common, and are ſo called, becauſe they are indeed round and ſmooth, not unlike to thoſe worms that breed in dunghils and gardens, which we ſaid before are called by the Greeks, the bowels of the earth. Theſe as all other Worms are blinde, without any eyes, and they are a hand length or ſomething more: yet *Benivennius c.* 2. affirms that a Smith did vomit up a Worm with groſſe flegm, almoſt a foot and half long, very plain, with a red head that was ſmooth, and about the bigneſs of a peaſe; but the body of it was downy, and the tail crooked like the half-moon. Alſo at *Rome, anno* 1543. one that was now upon his youthful years, when as for many daies (as *Gabucinus* tels the ſtory) he had been in great torments of his belly, at laſt he voided by ſtool a great black Worm with black hair, five feet long, as big as a cane. He ſaw one alſo that did not exceed the hands length, like to the round Worms, but that the back of it was hairy, and ſet as it were with red hairs; but this being caſt forth by uſing good remedies, he grew very well. One *Antonianus* a Canon (as *Hieronymus Montuus* tels the ſtory) voided a green Worm, but he died ſhortly after he had voided that. But for the moſt part they are ſmooth and not hairy, a hand long and not a foot, at both ends pointed, as it were with a nib. And they differ ſo far from Earth-worms, that they wear no collar nor girdle: what concerns their colours, I have ſeen ſome red, yellow, black, and partly white, or gold colour. Green ones are ſeldom ſeen, yet *Montuus* ſaw ſome. *Gourd-worms* are thoſe quick Worms that are like unto Gourd-ſeeds; concerning which the queſtion is ſo great between *Gabucinus* and *Mercurialis*; for when he treats of a broad VVorm, that is made of an infinite number of Gourd-ſeeds ſhut up in a skin; he ſaith thus: I, ſaith he, think a broad Worm to be nothing elſe but, according to *Hippocrates,* as it were a white ſhaving of the guts, that comprehends all the inteſtines, between which ſome living creatures are bred like unto Gourd-ſeeds: which may then be ſeen to be voided when all that ſhaving is voided, yet oft-times it is voided by parts: which if they break when they are voiding, then you may behold theſe Worms like to Cucumer-ſeeds voided by themſelves, ſometimes many of them being folded together, ſometimes but a few. But if any man ſhall ſee all that portion, let him know, that that ſcraping off like a Worm doth not live, but the creatures that are in it, like Cucumer-ſeeds. I once ſaw this Worm called a Broad Worm that pants, to have been of a wonderful length, and it crawled, a woman in a Quotidian Feaver voided it by ſiege, and when I did with admiration much view it, and ſought to finde the cauſe of its motion: that other man, who ſaid he voided a portion of a broad Worm ſome daies before, which he would ſhew unto me for a wonder, did ſhew it me with incredible deſire I had to ſee it; for this portion did move it ſelf, whence I was more deſirous to know the cauſe of that. At laſt ſearching diligently, I obſerved through the whole hollow part of it, a rank of living creatures like to Cucumer-ſeeds, which crept forth of it as out of ſome bed, ſometimes one, ſometimes two folded together, oft-times four, or more, and that part of the ſhaving of the guts that was empty of theſe creatures did not move at all, but ſank down: whence it comes to paſs that I think a broad Worm is nothing elſe but ſnotty matter bred between the guts, or ſnivelly flegm thickned by the coldneſs of the guts, covering the inſide of the guts like a coat, which women that aſſiſt the ſick call a bed of Worms. Out of which ſnotty matter little living creatures like Gourd-ſeeds proceed, as by way of a conception, which is covered all over by the ſecond membrane in the womb which is firſt made of the ſeed. So ſaith *Gabucinus. Avicenna* agrees in this opinion, *Fen.* 16. *tract.* 5. *cap.* 2. the Gourd and broad Worms are bred from the clammy matter that is faſtned in the ſuperficies of the guts, which is comprehended by a flegmatick pannicle covering it as if they were bred from that, and did putrefie within it. *Antonius Benevennius* a Florentine ſaith the ſame, and more clearly, *in com. de mirand. morb. cauſis, c.* 87. who writes that in the mineral Baths at *Avignon,* that are in the Countrey of the *Senones,* he ſaw a woman that for ſeven daies together drinking the water, did void theſe Gourd-worms in abundance, that ſtuck ſo faſt together, one being cloſe to the other, that they were in a rank that was above four cubits long, yet you would judge them to be but one body and one Worm. *Johannes* a Bookbinder at *Baſil* (whileſt I ſtudied Phyſick there in that Academy, under *Zuingerus* and *Platerus* my Maſters, *anno* 1579) voided ſuch a Worm ten ells in length without any pain, and not many years before he had voided the like. It conſiſted of many Gourd Worms; without which it had had no motion nor feeling, and might deſervedly have been rejected from the number of living creatures. *Platerus* had ſuch a Worm dried that was eighteen ells long, I ſaw it. *Pliny* writes of a Worm a ſick perſon voided, was three hundred foot long: wherefore whatſoever *Mercurialis* objects to the contrary, *lib.* 3. *de morb. puer. cap.* 7. ſince experience proves the thing, is without any firm ground. He ſaith it cannot be that any living creature can produce ſo many young ones, as there appear like unto Gourd-ſeeds; then, that the guts are not large enough to receive ſo many young ones. Thirdly, that this comes to paſs by reaſon of the violent putting them forth that gives the form, becauſe the young one being broken by coming forth, is divided into thoſe many pieces like Gourd-ſeeds. And hence we may conclude that thoſe are trifles that the *Arabians* ſpeak of Gourd-worms, foraſmuch as there are none ſuch: What is that I hear, moſt learned *Jerome*? that thou being gray headed, and taught by long experience, ſhouldſt ſo applaud thy own imagination, that thou ſhouldſt dare to deny a thing obvious to ſenſe, and plain to our eyes, and to *Gabucinus Benevennius,* and the *Arabians*? Go to, No living creature can produce ſo many young ones like Gourd-ſeeds: why not I pray? when as one maid that took phyſick to kill Worms, as *Gabucinus* affirms, voided 177 round Worms? To ſay nothing of that *Benevenius* reporteth *c.* 85. of the incredible multitude of them: and he was a man to be believed. And what thou ſpeakeſt of the capaciouſneſs of the place, if that be an argument, it is an errour to be laughed at.

For the guts will contain not only as many as are in a Gourd, but the Gourd it ſelf prepared. By thy laſt objection thou doſt but mock, but canſt not weaken the opinion of *Avicennas* and the *Arabians*: for as much as in bodies diſſected, Gourd-worms have been ſeen wrapt up in a roll, wherefore they took not their Gourd-form from the violent voiding them at the fundament, or from the manner of putting them forth, as thou either inventeſt maliciouſly, or ignorantly belieueſt. I conclude therefore with *Gabucinus*, that there are Gourd-worms, and the broad worm called *Tenia*, is not properly a Worm, nor yet a living creature, but ſomething about the entrails like white ſhavings, as *Hippocrates* ſaith, that is filled with theſe Gourd-worms put in faſhion of a coat of Mail. *Aſcarides* have their name from ἀσκεῖν, becauſe they bite and tickle very much, and ſo exerciſe the patients that are troubled with them: others derive them from ἀσκαρίζω, which ſignifies to move. The Ancients called them Beaſts-worms, becauſe they were ſeldom found in men, but often in Horſes, Dogs, Hens, and Oxen. And they were ſo ſeldom ſeen in men, that *Hippocrates*, and *Celſus* that followed him, either knew them not, or thought them not worth the mentioning, and ſo they ſaid nothing of them; and yet they writ at large of other Worms. They are like the round Worms, but ten times ſhorter, (for they are ſeldom above an inch long) and what length ſoever they be, they are thicker at the end of the longanum, and the ſphincter of the *anus* they are found, cauſing a vehement itching in thoſe parts. *Galen* writes in *Lib. de Ling. Hippocratis*, that *Gous* an old man called Aſcarides long Worms; which difficulty *Mercurialis* eaſily opens, for we ſhould read it, ſaith he, not μακρὰς, *great*, but μικρὰς, *ſmall*. Moreover, though in conſideration of their breadth and thickneſs they ſeem long; yet compared with round Worms, they may be called ſhort. Theſe and round Worms are of divers colours, as the matter they are bred of is, or in reſpect of the heat that concocts them; but Gourd-worms are alwaies the ſame: whence I ſhould conclude that Gourd-worms breed only from flegm, but the reſt from all humours and excrements. Aſcarides oft-times come forth in great numbers, and before they be voided they prick much.

CHAP. XXXII.

Of the Original of Worms in the guts.

ARiſtotle *lib.* 5. *Generat.* and *Hippocrates* before him, 4. *morb.* make the material cauſe of Worms to be dung. *Oribaſius l.* 3. *Aph.* 30. and *Montanus* that followed him being his Maſter, thought that living creatures might breed in the guts from all kindes of humours: and *Mercurialis* who thought they were deceived, was blinde himſelf at noon-day. But let us examine his Arguments: It is found, ſaith he, that they will not breed from bloud, becauſe bloud never putreſies ſo much, that living creatures may breed from it; Alſo he affirms from the judgement of *Alexander Trallianus*, that living creatures cannot breed in the veins. But experience cuts off the nerves of his firſt argument; and the Authority of *Rhaſis*, *Loppius* and *Pliny*, overthrows the ſecond. Alſo they cannot breed of a melancholy humour, becauſe it is cold and dry; nor of yellow choler, becauſe it is bitter, and ſuch creatures are not fed by bitter things, but deſtroyed. For which opinion, though he urge *Ariſtotle*, *Hippocrates*, *Galen*, 4. *ſimpl. med. Ægineta*, *lib.* 4. *c.* 27. yet what is there more ſlender than the opinion of them? For Butchers know that in the milts of Sheep, which is the fountain of melancholy humour, and in the gall of Oxen, which is the receptacle of bitter choler, innumerable worms are oft-times found. And I ſee no reaſon why Worms may not breed from yellow choler, as well as in Wormwood; from melancholy as well as in ſtones, from bloud as well as in ſugar. But if they be not bred from them, whence have they matter that they breed of? The Phyſician of *Padua* will anſwer, *It remains therefore that they can breed only of raw flegm*, which either ariſeth from too great quantity of the beſt meats for want of heat, or quantity of bad meats corrupt by depravation: which opinion, though it well agree with *Galen*, *Ægineta*, *Aetius*, *Avenzoar*, *Avicenna*, *Columella*, *Celſus*, *Alexander*, and chiefly with our *Mercurialis*, yet in my judgement *Hippocrates* is in the right, who thought that living creatures are bred in the little world, as well as they are in the great. Therefore as in the earth there are all kinde of humours, heat and ſpirit, that it may nouriſh living creatures that breed, *ſo hath man all kinde of moiſture that nouriſheth things that breed.* Moreover, when as theſe living creatures do repreſent perfectly Earth-worms, no man in his wits will deny but that they have both the ſame original. What flegm is there in the earth? yet it breeds round Worms, and Gourd-faſhioned, and Aſcarides, and all ſorts of Worms, and the beſt and warmeſt earth abounds with them, ſo far is it that they ſhould breed only of raw and corrupt humours. Do we not alſo daily ſee that Worms are voided by men that are in health? For I knew a woman of *Flanders*, that at *Francfort* on the *Main*, which from her youth till ſhe was forty years old, did daily void ſome round Worms, without any impairing of her health, and ſhe was never ſick of them. I conclude therefore that from every raw humour of the body Worms may breed; and not only from crude or corrupted flegm. The formal cauſe depends from internal heat, which is weak, gentle, pleaſing, and fit to breed living creatures; wherein that plaſtick force of Caleodick Nature, (to uſe the word of *Avicennas*) doth make the colours by the degrees

grees of ſecret heat, and ſporting her ſelf doth make that broad form of Gourd-worms, and ſometimes of Lizards, Toads, Graſs-worms, Catterpillers, Snakes, Eels, as we read in Hiſtories. This doth give them taſte, feeling and motion, this gives them that force of attracting, whereby they forcibly draw forth with greedineſs the juices that ſlip into the guts. If it were not ſo, that heat that conſumes all things might perhaps diſpoſe the matter that is changed by putrefaction, but it would never give the form and figure of a living creature. For it is not becauſe the guts are round, that round Worms are bred in them, as ſome men dream; but the external form depends from the internal, and the ſpirit drawn forth of the boſome of the ſoul it ſelf, doth frame the ſhapes without a Carver or Smith. This ſpirit is the mediate efficient cauſe: but God himſelf is the principal cauſe in this and other things, in whom, as well as we, the Worms are, move and have their being.

The final cauſe ſhewes their uſe, which declares Gods omnipotency, Natures majeſty, and the ſingular providence of both for mans good. For there are collected in us ſome putrefied excremental ſuperfluous parts, which the more bountiful hand of Nature changeth into Worms, and ſo cleanſeth our bodies; as we account it a good ſign of health to be full of lice, after a long diſeaſe: alſo they conſume much ſuperfluous moiſture in mans body, and unleſs they grow too many (for then they feed on our nutrimental juice) they are a great help to the guts; ſo far is it that they ſhould be accounted by phyſitians amongſt diſeaſes, or the beginnings of diſeaſes. Amongſt the concomitant cauſes I reckon the place and the countrey. For though they are more common to children than to thoſe that are of years, to women than men, in a peſtilential than a healthful time, in Autumn than in the Spring, to ſuch as uſe an ill diet rather than to thoſe that keep an exact diet: yet they accompany all ages, ſexes, conditions, ſeaſons, diets; for no man is priviledged from them, yet ſome places or climates are free, for according to the nature of them, in ſome many, in others no Worms will breed: for all kinde of Worms will not breed in each part of the guts, but round Worms only in the ſmall guts, Aſcarides in the Longanum, the Gourd-worms only are bred in all. Alſo, as *Theophraſtus* and *Pliny* teſtifie, there are no ſmall differences amongſt Nations and Countreys. (*lib. hiſt. pl. 9. c. 2. Lib. Nat. hiſt. 27. cap. 13.*) For broad or Gourd-worms are common amongſt the *Egyptians*, *Arabians*, *Syrians*, and *Cilicians*: again they of *Thracia* and *Phrygia* know them not. And though the *Bæotians* and *Athenians* are under the ſame Confines, they are frequently full of Worms, and theſe are by a priviledge as it were freed from them. He only will admire at this, or think it a Fable, who knowes not that the nature of Countreys vary according to the poſition of the ſtars, the nature of the winds, and the condition of the earth. There is a River (ſaith *Ariſtotle, lib. de nat. anim. c.* 28.) in *Cephalenia* that parts an Iſland, and on one ſide of it, there is great abundance of Graſhoppers, but none on the other. In *Prodoſelena*, there is a way goeth between, and on one ſide of it a Cat will breed, but not on the other ſide. In the Lake *Orchomenius* of *Bæotia*, there are abundance of Moles; but in *Lebadius*, that is hard by, there are none, and brought from other parts they will not dig the earth. In the Iſland *Ithaca*, Hares cannot live; nor in *Sicily*, flying Ants; nor in the Countrey of *Cyrene*, vocal Frogs; nor in *Ireland*, as we know, any kinde of venomous creature. The reaſon of all this he can only tell, who hath hanged the earth in the air without a foundation; for it is not my eye that can ſee ſo far, nor have I any minde to affect to know things above my underſtanding.

Uſe.

I leave that work to thoſe that dare aſpire
To know Gods ſecrets, let me them admire.

Chap. XXXIII.

Of the ſigns and cure of Worms out of Gabucinus.

Let us therefore ſhew the ſigns of Worms, beginning from thoſe that are called round Worms; both becauſe theſe do more frequently vex children, and becauſe they produce more cruel ſymptomes: of which *Paulus* writes thus: they that are troubled with round Worms, are cruelly torn in their bellies and guts; and they have a tickling cough that is troubleſome, and ſomewhat tedious, ſome have a hickop, others when they ſleep leap up, and riſe without cauſe; ſometimes they cry out when they riſe, and then they fall aſleep again; their Arteries beat unequally, and they are ſick of diſorderly Feavers, which with coldneſs of the outward parts come thrice or four times in a day or a night without any reaſon for them. Children will eat in their ſleep, and put forth their tongues, gnaſh their teeth, wink with their eyes, they will be very ſilent, and are angry with thoſe that rowſe them up, the balks of their cheeks, in a ſhort time, are ſometimes red, ſometimes wan-coloured. If the Worms run up to the ſtomach, they cauſe nauſeating, gnawing, and want of appetite; and if the ſick are forced to eat, they ſcarſe can ſwallow it, and if they ſwallow it down, they vomit it up again, they void many corruptions of meat by their bellies, and they are ſwoln like a drum, the reſt of the body growes unreaſonable lean, not by reaſon of hunger, nor immoderate evacuations. Theſe things happen when theſe creatures creep and gnaw in the belly. A feaveriſh heat ſends up ill vapours to the brain, that ariſe from putrid moiſture collected in the ſtomach. So writes *Paulus*. But *Aetius* out of *Herodotus* writes thus: Thoſe that are troubled with Worms have a moſt cruel pain of their ſtomach and bellies, and they have a little frequent tickling cough, and yet they ſpit up nothing: in their ſleep they ſhiver, and riſe preternaturally; ſome again put out their tongues and ſhut their eyes, and are ſilent, and cannot endure to be rowſed, and cannot watch for weakneſs: ſome have their eyes bloudſhed, their pulſes unequal, obſcure, deficient, and recurrent: ſome want an appetite, children whileſt they ſleep, bite their tongues, and move their mouthes as if they ſucked, or eat meat. But theſe things are done for a ſhort time, and by circuits. Moreover ſome children beſides reaſon, riſe with crying, and preſently fall down again: ſome craſh their teeth, which it ſeems happens when the Worms ſuck, and gnaw their bellies and guts. And now it appears that ſome are come up into the ſtomach, and cauſe loathing, and bitings: oft-times alſo by themſelves they are caſt upward, but ſometimes with ſome flegmatick humour. Some Infants neglected loſe their motion, and are benummed, and like thoſe that are in a ſwound, they ſweat a cold thin humour, and moſt commonly they are wan-coloured: ſometimes the face will be red, eſpecially about the cheeks, but this colour again is changed into more than ordinary paleneſs. Others again like dotards ſpeak ſtrange words in their ſleep, others change their places they ly on, ſtill ſleeping, and they are vexed, and turn from place to place: but very few of thoſe do cry, for moſt of them are void of reaſon, and are ſilent. Alſo they that are vexed with round Worms, loath their meat, and if they eat any thing, they caſt it up again, or loath it ſo much they can hardly ſwallow it: for they fall into Feavers with vehement cold in the outward parts: ſome have their bellies ſwoln like a drum. So ſaith *Aetius*. But theſe are the marks he reckons from *Hippocrates* opinion: Worms in the belly are diſcovered by theſe marks: If they be ſleepy, and the diſeaſe will not let them, and their outward parts be cold, and there be gnawing at their hearts, the urine troubled, and the tongue full of moiſture; alſo they that have Worms in their ſtomach, are full of ſpittle; and if any little Worm comes forth they ſpit no more: therefore all thoſe that have Worms in the mouth of their ſtomach, do commonly caſt them up all by vomit, but thoſe that have belly Worms, void them by ſiege. But they all nauſeate, and vomit up what they take in. They are like to thoſe that are pricked, that have contractions all over their bodies, and move ſuddenly and confuſedly, and they have torments and pains of their guts. Vapours carried to the head cauſe Vertigoes. Moreover the manner of diet that the party uſed will ſhew the generation of Worms, and all the reſt. Theſe are the ſigns of round Worms; but all theſe ſigns muſt not be ſought for in every one, as *Paulus* ſaith; but ſome and the principal of them. I might joyn here many things out of our new writers, unleſs what they ſay, and more alſo were not to be found in *Avicenna*, whence they borrowed it.

Signs of broad Worms.

Paulus gives us theſe notes of broad Worms: ſometimes they abound in thoſe that have Feavers, and ſometimes in thoſe that have none. In Chronical diſeaſes they breed, gnawing the ſtomach, and cauſing a greedy appetite. They eat the meat ſo faſt, that we need more, and if it be not preſent, they bite ſhrewdly; the body growes lean and weak, and unequal. But the moſt certain ſign is, that ſome bodies like Gourd-ſeeds come forth with our excrements: ſo ſaith *Paulus*, and *Aetius* doth not differ from him, but that he ſaith, that they gnaw the ſtomach continually, and cauſe an inſatiable appetite, and that the meats eaten ſoon turn to excrements. They that are affected grow weak of body and ſluggiſh, and are alwaies hungry, for what is living in the guts, when it hath conſumed the meat, feeds on the body; but this ſign will not fail us, if ſome things like Gourd-ſeeds be voided by ſtool. The ſigns *Hippocrates* gives are theſe: He writes after this faſhion: There is another kinde of this, that comes forth like the white ſhavings of the guts; which hath theſe marks: The party voids ſeed like Cucumer-ſeed, and when he is faſting he is vexed, and ſpits much, his liver being affected, ſometimes not; and ſometimes when this vehemently affects his liver, it ſtops his ſpeech, and he ſpits much, and after that it ſtops: and ſometimes there is great pains in the guts, ſometimes the ſhoulders ake, and then it ſtops again. Sometimes theſe are the ſigns of the broad Worms. He that is affected with this Worm, is almoſt alwaies in health, but when he growes weak, he can hardly endure it, or be recovered. For this broad Worm takes ſome part of thoſe things that go down into the ſtomach, and if care be taken it may be cured, but if not, the Worm will not come forth it ſelf, nor doth it kill a man, but growes old with him, &c. *Aſcarides* are alwaies about the bottome of the belly as we ſaid, and there they cauſe a great itching almoſt continually, as *Paulus* and *Aetius* have written; and ſometimes, as it is reported, they will make one faint. For that is ſhewed by their name. For they moving alwaies do continually exerciſe a man and tire him out. They that are troubled with theſe, feel alwaies a heavineſs about their *Præcordia* and backs. The ſigns of theſe are chiefly taken from the filthy ſmelling of the excrements. They that have Worms their eyes at firſt ſhine, their cheeks are wan, in the night they have cold ſweats, their mouth is pale, they ſtart in their ſleep, in the day they are more feaveriſh, their tongues and are dry lips, their breath commonly ſtinks, their face is pale, they nauſeate and vomit often, they loath meat, they craſh their teeth, eſpecially in the night, they put forth their tongues (and they ſeem to eat) they are angry with thoſe that awake them, they ſpeak ſtrange words, ſometimes they are in a lethargy, and pick ſtraws, and their heads ake, they cry out in their ſleep, as the diſeaſe increaſeth, their hearts beat exceedingly, their voice is interrupted, their arteries beat weakly, ſometimes in the height of their pain, they are extended, and their mouth fomes as in the Epilepſie, their belly is ſwoln like a Tympany;

Aſcarides.

ſome-

Prognoſticks.

Sometimes the pains abate, and again there follow torments, and Colique pains, with a lienterie flux of the belly, ſometimes they are coſtive, and the excrements are hard. Theſe are the ſigns of Worms, now follow the Prognoſticks. The Prognoſticks are very neceſſary in all diſeaſes to know what will be the event, and to know the condition of the patient ſerves much for the cure, as *Hippocrates*, eſpecially in his Prognoſticks, hath abundantly ſhewed; who in the beginning of his book *de prudent. Medico*, hath delivered it: Eſpecially foretelling here before the patient, things preſent, paſt, and to come, and what the ſick have neglected, he is thought to underſtand the condition of the patient; and hence it is that men wil better dare to truſt the Phyſitian. But becauſe it is difficult to foreſee all this, unleſſe we uſe ſome artificial conjecture (I call that an artificial conjecture, that comes very neer the truth) and who can eaſily attain this, unleſſe he have learned the things that belong to the art, and remember them, and hath with all diligence exerciſed himſelf in the practice of it? The things wil be thus known. If a man ſuppoſe that there is any vital vertue, he muſt know the diſpoſition of the patient in ſtrength and weakneſſe; and when he is perfect in theſe, he muſt ſtudy further to know all differences of diſeaſes in the greatneſſe and manner of them, and then to learn the foreknowledge of the future ſtate. And when he hath learned all theſe, then he muſt exerciſe himſelf both in comprehending the magnitude of the diſeaſe by exact conjecture, and the force of the patient, and how long they may laſt. Now practiſe wil help him much in this; and before he hath diligently learned all theſe, it wil no whit profit him to ſee ſick people: wherefore they that profeſſe phyſick, proceeding in this method, ſhal never undergo any diſgrace, neither in curing, nor foretelling of future events, which they report ſome famous Phyſitians have fallen into. Hence it may be collected why ſome Phyſitians are more fortunate then others, and what a fraud that is, to call a Phyſitian more fortunate then another; how abſurd that is, *Galen* and *Eraſiſtratus* have ſhewed; ſaying, that a Phyſitian muſt be exerciſed in all theſe things in his minde, and he muſt be diligent, and prudent by nature, that comparing all together, he may get a groſſe ſumme of prædictions, that ſhal be uſeful for himſelf and for his patient. For ſuch is the force of prædiction, that alwayes for the moſt part, what the Phyſitian foreſees wil come to paſſe, where the Phyſitian is perfect, and the ſick doth not neglect his orders. But becauſe, as it is evident, a Phyſician by prædictions may get immortality almoſt, ſo chiefly from thoſe things that do belong to this affect, he ſhal win glory to himſelf, by telling the ſick their condition, who for the moſt part are children, or ignorant what their diſeaſe is. Since therefore Prognoſticks are chiefly neceſſary for this diſeaſe, I wil not fail to ſet down what the Ancients have written of this diſeaſe. *Paulus* a great follower of *Galen*, writes of theſe things to this purpoſe. Worms bred at the beginning of Feavers, have their ſubſiſtence from the corruption in the body, about the ſtate of the diſeaſe, from the malignity of the diſeaſe, about the declining, they grow better. For *Hippocrates* ſaith, it is good that round Worms come forth, when the diſeaſe comes to a Criſis. But *Aetius* writes thus from the opinion of *Herodotus* a Phyſician. Worms breed in Feavers, and without, that differ one from the other in multitude, magnitude, colour, and time. For Worms bred at the beginning of a diſeaſe, have their being from the corruption that is in the body, about the vigour of it, from the malignity of the diſeaſe, about the declination, from the change to better, and they are ſoon alſo voided forth, Nature driving them to the outward parts as ſhe doth the reſt of the excrements. But the greater ones are worſe then the leſſer, many than few, red than white, living than dead. Our new writers adde to theſe; if round Worms are caſt forth alive at the beginning of acute diſeaſes, they ſhew peſtilent diſeaſes, but if dead ones be caſt forth when the diſeaſes decline, they are an ill ſign alſo, however they appear both theſe times, it is bad. It may be becauſe that Feaver that follows Worms is alwayes naught, becauſe it conſumes the matter for Worms. It happens alſo that the Worms are ſet on fire and grow hot by reaſon of a Feaver, and ſo are wreathed together, and moved, that they ſo much the more affect and trouble thoſe that have theſe Worms. They adde further, that it is proved by experience, that Worms are in the belly, if in the morning you ſprinkle cold water on the mouth of childrens ſtomachs, for they will all gather to one place. Worms ſprinkled with bloud, ſo voided is ill, for they ſhew great hurt of the guts, to caſt Worms up by vomit is naught, for it ſhews the ſtomach to be ſtuffed with filthy humours. Frequent cold breathing of children, their bodies yet ſwelling, is deadly, for it ſhews they will die the next day. If the eyes of the ſick are ſomewhat held together, and cannot be cloſed by the fingers of thoſe that ſtand by, death is at hand. Some there are, it may be following the opinion of *Alſaravius*, that ſay that thoſe who are troubled with *Aſcarides*, are but ſhort-lived. But there is a great queſtion to be reſolved, and that being done, I ſhal put an end to thoſe things that concern the Prognoſticks taken from Worms. *Aetius* a little before ſaid that live Worms were worſe than dead ones. But *Rhaſis* and *Avicenna* that follows him, think the contrary, abſolutely preferring the dead ones before the living. In which queſtion, to paſſe over other men, I ſhal ſay what I think, that the ſtrongeſt affection is taken from thoſe that are dead, becauſe they muſt needs be driven forth, and cannot come forth of their own accord; yet I follow *Hippocrates*, who in a certain place uſeth ſome words that are difficult, wherein he would have us to conſider diligently what ſymptoms VVorms breed, for if they come forth without any ſymptoms they foreſhew a good ſign. But he makes it clearer elſewhere thus. *It is neceſſary that round Worms ſhould come forth with the excrements, when the diſeaſe comes to the Criſis.* So that by this we may underſtand, that if they be voided any other time, it is done rather ſymptomatically than by force of nature, and therefore they ſhew corruption or malignity, as *Paulus* and *Aetius* diſtinguiſhed.

But

The cure.

But becauſe we can never rightly undertake the methodicall way of curing Worms, unleſſe the belly in which they are be well diſpoſed, nor can this be, unleſſe the whole body be ſo, and this is excellent well performed by good diet; wherefore that in the firſt place muſt be well ordered, for without that all helps are in vain, for the preſerving and repairing our health. For this is ſo famous, and almoſt the beſt part of Phyſick, that that admirable *Cous*, *Celſus*, *Galen*, *Pliny*, and almoſt all the old Phyſicians, could never give it commendations enough. *Aſclepias* formerly eſteemed it ſo much, that he almoſt took away the method of curing by Phyſick, and wholly turned all curing upon diet. Now this conſiſts not only in the quantity and quality of meats and drinks, but alſo in all thoſe things that befall us whether we will or no, as in ſleeping and waking, motion and reſt, as alſo in the repletion and emptineſſe of the whole body and of every part, and in the affects of the minde, but chiefly in the Air that is about us, which not only ſticks faſt to us outwardly, but continually enters into the inmoſt parts of our body by the drawing in of our breath. As for what concerns thoſe things that we take, becauſe they are ſuch things that every man knows, I ſhall ſay nothing of them. For there is no man ignorant, that divers meats, and of ill and naughty juice, and diſorderly taken, will breed crudities, and that gluttony and drunkenneſs do our bodies great hurt, yet many kinde of meats, that are hurtfull in other diſeaſes, are profitable in theſe. Wherefore we ſhall as it were beſides our purpoſe, and by the way touch upon theſe, firſt adding what *Paulus* writes. Let the meats of thoſe that have Worms be of good juice, that may eaſily be diſperſed, and paſſe to the parts, and neither foſter the cauſe, nor weaken our forces.

Wherefore we grant them wine mingled with water, and let them eat often both for their need, and that the Worms may not gnaw them. If there be a ſcowring of the belly, it is a ſign that many are bred, the meat being not diſperſed; and in that caſe Pears or Quinces muſt be mingled with our broths; Wheaten bread is a wonderfull help, having Anniſeed mingled with it, or Fennel or Salt; or bread that is between Bran and Wheat, called συγκόμιστος, becauſe there are joyned together in it, the Bran, the Hulls, and the Flour. Men call alſo this bread αὐτόπυρον, becauſe all the Wheat, without taking any thing from it, is made into bread. Alſo the wheat it ſelf that the meal is taken from muſt be the beſt, for ſome of theſe have much Bran, which is the courſer wheat, but the finer wheat is the beſt. But wine that is mingled with water, becauſe it gently bindes, is held to be very convenient. Mountain birds are fit for their meat, and young wood Pigeons, green Groundſel, and Goats-beard, the broth of black Chiches, and Coleworts, and Capers, and pickled Olives eaten; and if there be no Feaver, let them eat their other meats with Muſtard, alſo ſowr and oyly things are commended. Alſo Panick (which *Diocles* called the honey of Corn) is moſt durable, if ſo be it may be reckoned amongſt Corn. Alſo Spelt in the decoction of Myxie, and a Ptiſane with a great quantity of Oyl of unripe Olives, beſides theſe, Lupines, Creſſes, Betes, Mints, Smallage, Radiſh, and ſawce eaten are good. Give children before all meat, a decoction of Sebeſtens with Mints. Milk is very hurtful, as alſo Fiſh, and Pulſe, and whatſoever is of a cold groſſe ſubſtance, and hard to be digeſted. Bread unleavened breeds Worms, for it is good for no man, and ſo are all moyſt meats, that eaſily turn to corruption within.

For all kinde of Worms it is moſt convenient to uſe abſtinence from ſuch things as breed them: And when they are bred, it is good to eat often, a little at a time; and that is beſt, when they leave off gnawing. But thoſe that have Aſcarides muſt eat meats of good juice, and of eaſie digeſtion, that the force of them may not reach ſo farre as the right gut. For the matter fit to breed them is ſo conſumed. Thus far for meats and drinks to be taken. But the other five kindes that are not ſo manifeſt, ſhal be handled by us alſo with all brevity. And we ſhal begin from ſleep. It muſt not be too little nor too much, and in the night rather than in the day, at leaſt two hours after meat. Moreover, to be long idle is naught, let exerciſe precede meats, and reſt after meats. Nor is every motion to be taken for exerciſe, but that which makes us breath more; unleſſe it be when we have taken Phyſick againſt Worms; for then we muſt ride or run, to ſhake our bodies; for they are more eaſily caſt forth by hard exerciſe or labour: but children will hardly obſerve theſe rules. Care alſo muſt be had, that the belly may twice be unburdened, and if that will not do of it ſelf, we muſt uſe a Suppoſitory or Clyſter to provoke it, made of ſuch ingredients that are fit for this purpoſe. All affections of the minde whatever they be, muſt be ſet aſide, as quarrelling, anger, ſorrow, great cares, and thoughts, ſadneſſe, fears, envy, and all ſuch kinde of perturbations, and chiefly after meat. For theſe change and turn the body from its natural ſtate. Let men beware of cold North windes, and let them not go barefoot. The air becauſe it alwayes is about us, cannot be choſen at our pleaſure: for it is ſometimes a defence for us, and ſometimes the cauſe that makes Worms, or foſters them: It wil be a defence if it be very hot, and dry, pure, clear, and calm; and it wil chiefly foſter the diſeaſe, when it is very cosd, or moyſt, or moved by the North or South winde, or by too great heat, diſſolves our forces, and then by art it muſt be thus prepared: To burn in our Chambers wood of Juniper tree or of Citrons, or Peach-trees, and ſuch wood as is againſt Worms. Alſo to perfume the place with tops of Worm-wood, Peach-tree leaves, Citron pills, roots of Pomegranate-trees, alſo with Fern, and Ivy. But that is the beſt that is made with Myrrhe, and Aloes. Another remedy that ſuccours the fainting ſpirits, by reaſon of Worms. Amber greece two penny-weight, Muſk one peny weight, Gum Arabick, four peny-weight, Roſes, Sanders, Cloves, Privet, Frankincenſe, of each one peny-weight, *Gallia Moſchata* ſo called, ſix peny-weight, Lignum Aloes burnt to a cole twenty peny-weight, the quenched coles of Vine-branches, what is ſufficient, make them up with Roſe Vinegar.

A general cure of Worms.

Worms are oft-times exaſperated with vehement remedies, that they bring children to Convulſions, ſwoundings, and death; wherefore they are not raſhly to be given, and at all adventures. But becauſe that remedies by reaſon of their different qualities are thought to be good to kill and bring forth Worms, therefore in general, ſuch remedies as heat, drie, cut, and are ſharp, bitter, ſalt, or ſowr, and attenuating, are to be uſed. For either they kill the Worms by their ſharpneſſe, or bring them forth by their bitterneſſe, or they allure them to come forth, or elſe they are known to be good to bring them forth by the looſeneſſe that followes. They are brought forth 'tis likely at once, by ſuch ſupping means as make the paſſages ſlippery, or by ſome effectual quality, that is nameleſſe. There are ſome cool remedies that effectually drive forth Worms, and ſome by a hidden quality, as ſhavings of Harts-horn. But thoſe things are beſt that kill the Worms, for ſo long as they are alive they are an occaſion of miſchief. And they are hardly driven forth when they are killed, wherefore they muſt be drawn forth by Clyſters; otherwiſe they ſend a filthy virulent vapour to the brain, and likewiſe inflame the body, and hurt the appetite and concoction. But becauſe Worms happen moſt to children, who are hard to be dealt withall, I thought it not fit to conceal that wonderful way that *Paulus* mentions, whereby Aloes, and certain broths are given to them by way of ſuppings. A certain Cooks Inſtrument or ſpoon that is called ζωμήρυσις, is put into their mouths as they lie upon their backs, and by a little Clyſter with a ſtrong Pipe, Aloes is forced down their throats, holding their mouths wide open as far as it is poſſible. *Pollux* makes mention of this, but doth not tell us what it is. But whatſoever *Zomeryſis* is, we underſtand two things by it, that it is made deſcending, that thereby the bitterneſſe of the Aloes is not taſted. But by that other Inſtrument that *Paulus* calls *Clyſteridion*, it is forced in by violence. But force and nature concurring, the motion is moſt ſwift, the heavy matter running downwards, and is violently driven in by it. *Paulus* alſo deſcribes another Inſtrument, whereby moyſt things are injected into the fundament, it hath many holes quite through it, and theſe from the matrix are called *Metrenchitæ*: But *Aetius* ſpeaks clearer thus. To which purpoſe you muſt provide a horn Pipe that is full of holes through it, large at the bottome, and convenient for the largeneſſe of the place, which being thruſt in beyond the Sphincter of the Anus, we fill with juice of Cedar, ſo that the liquor may flie forth every way. But foraſmuch as theſe Inſtruments are unknown to us, when remedies are given either to kill or drive forth Worms, ſtop the childes noſtrils, and then waſh its mouth with ſome ſweet or ſharp thing, and when he hath drank down the medicament to kill the Worms, his ſtomach muſt be fomented with Acacia or Hypociſtis with wine. Thoſe things that kill Worms are beſt given in ſweet milk or honey or Oxymel, or ſyrup called *Acetoſus*. Some firſt ſatisfie the children firſt with three dayes drinking of them, and then they give the phyſick afterwards. Alſo they give Clyſters of the ſame ſweet things, that they may entice thoſe Creatures to the lower parts. If the belly ſcowre, it is of neceſſity that the Worms muſt be killed at laſt, for the motion of the belly will caſt them forth. But when the appetite is hurt, and the belly looſe, the Worms muſt be killed with bitter things only, that are ſomewhat aſtringent, as with Wormwood amongſt hot things, or Southernwood and Worm-ſeed: Or amongſt cold things, with Pomegranate pills, Acacia, juice of Plantain, Purſlane and ſuch like.

Simple hot medicaments againſt Worms out of *Dioſcorides*, *Celſus*, *Pliny*, *Scribonius*, *Largus*, *Galen*, *Oribaſius*, *Paulus*, *Aetius*.

Of hot things the ſeed of Creſſes drives forth all belly-worms, bruiſed and drank in wine or Vinegar, yet more effectually if wilde Mints be added, yet it troubles the belly. The meal of Lupins licked with honey or drank in Poſca, and outwardly applyed to the navel with Bulls gall, drives them forth. The ſame alſo being infuſed and eaten with their bitterneſſe, wil do the like. Alſo their decoction can do as much, being drank with Rue and Pepper. Sea Worm-wood boyled by it ſelf, or with Rice, adding Honey to it, kils Worms in the guts, and it wil do it better with Worm-wood. Southernwood doth the ſame by its bitterneſſe; Cardamomum kils them. Alſo the decoction of Hyſop drank, or the herb it ſelf licked up with Honey. So Calaminth kills Aſcarides, and other VVorms, if it be drank with ſalt and honey, or if it be eaten raw or boyled, or the juice of it given in a Clyſter, or drank. Alſo the decoction of Thyme, or Rue boyled and drank with Oyl forceth them out. Alſo wine of Cedar, and the liquor of Cedar it ſelf. Unripe oyl of Olives, if it be drank plentifully, for it is preſſed out unripe for children. Juice of Oenanth hath the ſame operation, as oyl of unripe Olives. But the beſt thing againſt VVorms are ſweet Apples called St. *Johns* Apples, for they looſen the belly, and drive out the VVorms; which by what faculty they can do it, (being they are ſweet, and of a honey taſte, from whence they borrow their name, and ſince ſo they ſhould rather feed VVorms) is perhaps, becauſe by this meat the belly is made looſe, and the VVorms follow; and the VVorms that otherwiſe would ſtay within, by the force of the excrements, as Fiſhes in a torrent are carried away, when in Summer great rains fall, and ſo are they carried downward. For *Dioſcorides lib. 1. cap. de Melimela*, ſaith that thoſe Apples make the belly ſoluble: Alſo the ſeed of Coleworts, eſpecially that which growes in *Egypt*, drank, drives forth VVorms, namely, becauſe the temper of it is drier, and more wilde. The ſame is done by Oyl of *Palma Chriſti* drank. Myrrhe alſo by its bitterneſſe both kills and drives them forth. The decoction of Elecampane, Squils taken with Vinegar and Honey, but the Squils muſt be firſt roſted, or otherwiſe it is held to be moſt pernicious to the entrails. Alſo they uſe to give againſt all VVorms the decoction of the root of Capers in honey and vinegar. And *Dioſcorides lib. 4. cap. 1.* writes, that the herb called ſmall Turn-ſoil, drank with the ſeed, adding thereto Nitre, Hyſop, Creſſes, and water, wil force out all ſorts of VVorms, long and flat. But *Paulus*, unleſs there be an error in the Preſs, reckons Cardamomum for Creſſes, *lib. 7. c. 1.* Rocket-ſeed in wine, wil drive out all living Crea-

tures

Cold Simples againſt Worms.

tures bred in the body. Alſo ſeven or five Earth-worms drank with ſweet wine, wil drive out all kinde of VVorms: Bitter Almonds and the Oyl is good. Agarick with Honey, but it purgeth with trouble; for it is hurtful to the ſtomach, by making it ſlippery and looſe. Storax ſwallowed with Roſin of Turpentine: Aloes drank in cold water or milk, the ſame drank in a decoction mingled with Honey, brings them forth without trouble. The ſeed of Tithymal or the juice of it about five drops mingled with Figs or Dates. The leaves, of Agnus Caſtus, Polypode, Chamepythe, Centaury the leſſe, bruiſed and drank with Vinegar. Alſo one peny weight of the root of the ſame drank in three Cyathi of wine, doth help. Horehound with Wormwood and Lupins, boyled in water and Honey, of each alike, and with wine applyed twice or thrice, kills all Worms in the belly: Coſtus by its bitterneſſe, with water kills all Worms. But *Dioſcorides lib.* 1. writes that it drives out only broad VVorms, with water and honey; which place *Marcellus* interpreting, blots out that word [and honey] as put in amiſſe, for this reaſon, becauſe it is contrary, and ſeems not to agree with the cure for VVorms. For ſaith he, they are raiſed and nouriſhed by ſweet things, and belly VVorms are not driven forth by them, unleſſe perhaps Honey muſt be therefore added, that they being deceived by the ſweetneſſe of it, they may take in the bitter Coſtus in greater quantity, as we uſe to do in curing children, when we give them bitter or ſtrong potions, we cover them with ſome ſweet ſavour, or pleaſant ſmell. In which buſineſſe he ſeems to ſeek a knot in a Bull-ruſh (as we read in the Comedy) and yet he confeſſeth it to be otherwiſe. For whether the word Honey be read in *Dioſcorides* or not (for I am not yet certain of it, nor hath *Ruellius* ſet it down) it is ſufficient that bitter Medicaments, (ſuch as Coſtus are, and ſuch like) were given alwayes almoſt by *Dioſcorides*, *Pliny*, *Galen*, and others, for to cure Worms, with ſweet things, and chiefly with Honey, or Mede, or Oxymel, for the ſame reaſon that *Marcellus* mentioneth, *lib.* 4. *cap.* 57. which *Paulus* added in theſe words. Becauſe ſome men oft times refuſe bitter potions, as having an ill taſte, of theſe thing herein comprehended, they ſhal not give any that are manifeſtly bitter, but mingled with ſome ſweet thing, as he ſaid a little before, that all theſe medicaments muſt be mingled with Honey or Oxymel, and ſo given to drink: Or as *Lucretius* ſaith, that the improvident Age of young people may be deceived, or elſe may be able to take it, being enticed by ſuch a taſte. For children moſt commonly are ſubject to Worms. Therefore nothing hinders but that the word Honey ſhould be added, as *Marcellus* himſelf teſtifies, if we read him in ſome old Copies. Likewiſe a Cantharis bruiſed, and drank with a Briony root, drives forth Worms, as *Galen* writes, *lib. de compoſ. Theriaces.* Of cold things, the juice of Mouſe-ear, with Ale, of each one Cyathus, Groundſel eaten, the juice of Plantain, eſpecially when the belly is looſe, given one ſpoonful or a ſmall meaſure to drink, and the herb it ſelf bruiſed, laid to the navel. Coriander ſeeds with the juice of Pomegranates and Oyl deſtroy the Worms in the guts, or drank with ſweet wine. Hot things, as boyled Beets, taken with raw Garlick, by the Nitrous quality it hath, brings them forth, but the juice is hurtfull. A Pomegranate bruiſed, and boyled in three Heminæ of wine to one Hemina, drives forth Worms, takes away the pain, and the juice of the root one dram and half weight, will kill them. Sumach of *Syria* will do the ſame, and the ſeed of Orache. Our new writers adde, that it is manifeſt by experience, that the ſharpeſt Vinegar drank when we go to bed will drive out the Worms. But amongſt thoſe things that prevail much is *Corallina*, ſo called, which being powred or mingled with Honey or Oxymel, or drank with Honey-wine, doth wonderfully kill Worms, or drive them out half dead. This took its name from the likeneſſe of Corall, ſince both of them grow in the water, and for ſixty years almoſt it hath been uſed to good purpoſe to drive forth Worms; if I be not miſtaken, this is that which *Dioſcorides lib.* 4 and *Galen* call *βρύον θαλάττιον*, that is, Sea-moſſe; and if that they did not attribute to it the ſame force we do to drive forth Worms, as we ſee in *Corallina*, as they call it, I ſhal not therefore think that it is any thing elſe, beſides *Dioſcorides* and *Galens* *βρύον*: For the Antients did not know the vertues of all Simples, for the true nature of each cannot be found out by any other way than by its effects in phyſick. A mighty work and ſecret from God, than which there can be no greater found out. Alſo many things are found now adayes that were not found out in our forefathers dayes; and no wonder, ſince theſe experiments are made by Countrey-men, and ſuch as are ignorant of learning, who commonly live only where they grow, beſides the negligence of ſeeking, when there are ſo many Phyſicians at hand every where. Alſo many things are found out that want names: To this we may adde the uncertain way of finding out; for in things that are found, *ſome were found by chance,* ſaith *Pliny*, *lib.* 25. *cap.* 2. *others were revealed by God.* But the fouleſt cauſe of this rarity is, that they who know things will not diſcover them, as if they ſhould quite loſe what they acquaint others with. They are as envious indeed as thoſe are who either ſuppreſſe the monuments of Antiquity, or elſe utterly demoliſh them; which they for that end, that what is written by the Ancients may be attributed to themſelves, or if they have delivered any famous matter, they that write other mens opinions will let that be loſt. But if there be any that will contend, and ſay it cannot be that they ſhould be ignorant that Sea-moſſe was good to drive forth Worms, to thoſe I anſwer, that the Ancients did not commit to writing all the natures of Simples that they knew. For we know many of the precepts of *Pythagoras* and *Socrates*; which yet cannot be known out of their Books, becauſe they wrote none. And *Plato* though he left ſo many Books in writing, yet beſides thoſe he wrote, his followers take many things for his that he never put in writing. Nor hath that *βρύον* growing in every place, as they report, the ſame faculty, but the Apothecaries in ſome certain places of *Italy* fiſh for it, and they ſell it under the name of *Coralline*. But let this ſuffice.

This is rather to be enquired into, why, being that Corallina taſts ſalt, *Dioſcorides*, *Pliny*, *Galen*, and others report it to have a cooling faculty, when as it is known that all ſalt things are hot, and earthly, not unlike to bitter things that are hot? Whether it be, becauſe the ſea-water is ſalt, yet hath in it a great deal of potable water (as *Ariſtotle* hath ſufficiently demonſtrated it) and therefore by that it is the leſs hot? Or elſe becauſe it contains in it much earth, and ſo it is drier and thicker? But ſuch things as grow in the ſea, muſt needs be of the ſame faculty with it. Becauſe therefore that Sea-moſſe growes in the ſea, *Dioſcorides* and others attribute to it a thickning quality, but as it contains in it much water fit to drink; and as it is of an earthly quality, by that it cools. Laſtly all that are troubled with Worms, are helped with the ſmell of the hair of Ichneumon (they call it an Indian rat) as *Paulus* writes.

Simples ſeverally that bring forth Worms round, Aſcarides, and broad Worms.

The juyce of Houſleek drank in Wine, will drive out of the belly round Worms: Wormwood Wine drank doth the ſame. The herb of great Turnfoil drank with its ſeed, adding thereunto Nitre, Hyſop, Creſſes, and water, will caſt them forth. The root of female Fern, 3 drams drank in Wine, will force out the round and broad Worms of the belly, as *Ruellius* and *Marcellus*, who interpreted *Dioſcorides*, do both aſſert. But *Galen* ſaith that it kils not round Worms, but Aſcarides and broad Worms, for ſo he writes, *lib. Therapeut. method. cap.* 14. But Wormwood can deſtroy round Worms broad Worms require more ſtrong helps, as Fern is, and ſo doth that Worm the Greeks call 'Ασκαρίς. *Theophraſtus* was of this opinion, who writes that female Fern mingled with Honey is good againſt broad Worms of the belly, if it be mingled with Honey; and for Aſcarides, in ſweet Wine. For ſo he ſets it down: *Female Fern is good againſt broad Worms and ſmall ones*: againſt broad ones mingled with Honey, but againſt ſmall ones in ſweet Wine. It is certain that Aſcarides both are, and are called ſmall Worms. Moreover, *Galen lib de ſimpl. Medic. facult.* 8. aſcribes the ſame vertue to the female Fern, that the male hath. Now *Pliny* writes that the female will kill only broad Worms and not round. *Plin. lib. hiſt.* 27. c. 9. And again, that both, (that is, both male and female) will drive forth Worms of the belly, broad Worms with Honey, the reſt with ſweet Wine drank for three daies, and he excludes neither round Worms nor Aſcarides. But *Galen* in one place excludes both round Worms and Aſcarides; and in another place he writes that it will deſtroy Aſcarides with broad Worms. What now ſhall we ſay, where Authors are of ſo many different opinions? ſhall we ſay that female Fern will kill all Worms in the belly? For *Galen* aſcribes the ſame virtue to it he doth to the male, but that eſpecially it kils broad Worms, and in the next place Aſcarides, which being at the bottome of the belly, require a ſtronger remedy, as Fern is, that the force of it may come ſo far. But ſince it can drive forth broad Worms and Aſcarides, that are more ſeldome, and the one is in the guts, the other fartheſt from the ſtomach, it will far ſooner deſtroy round Worms that lie in the upper guts. *Galen* therefore will not fight with himſelf in this, for it ſufficeth if it will kill broad VVorms, and if it can deſtroy them, it can more eaſily deſtroy Aſcarides, and eaſieſt of all round VVorms. But *Pliny*, as who beſt of all knew that, ſaith it will drive out the reſt alſo, (that is, both round VVorms and Aſcarides). But that he ſaith ſo is manifeſt out of *Paulus*, *lib.* c. 58. who in his method of curing round and broad VVorms, mentions Fern: which yet all men agree is moſt properly uſed to drive forth broad VVorms. *Avicenn.* 16 *Tertii tract.* 5. c. 4. ſhewes this moſt clearly in theſe words: *The medicins that kill Aſcarides are ſtronger than thoſe that kill long Worms; and thoſe things that kill long Worms and Aſcarides will alſo kill broad Worms.* Gith or Nigella not only eaten but laid in a plaiſter to the belly, or anointed on the navil with water, brings them forth. In which place we muſt note *Marcellus*, who ſaith it will drive forth broad VVorms and not round: but *Ruellius* interprets this by the contrary. It *Marcellus* have done right, I leave other men to judge, this is certain that *Galen* is of *Ruellius* minde, who hath written only that it will kill VVorms; and as I ſaid before, it is taken generally for round VVorms. *Paulus* and *Aetius*, agree with *Ruellius*, who in their curative method for round VVorms, often ſpeak of Gith, but never for broad VVorms. Wormwood called Santonicum, of it ſelf or boyled with Rice, adding Honey to it, will kill Worms. The ſeeds of Nettles bruiſed, or of Coleworts or Cummin, with water, or Mints with it, or Hyſop with Honey and water or Creſſes-ſeed bruiſed with Vinegar, kils them. *Celſus l.* 4. *c.* 17. *Oribaſius lib. ad Ennapium filium*, hath written that Calamint, Cardamom, Lupins, and the powder of them in drink, or with Honey by way of Electuary, or given in Poſca to drink, are ſufficient to kill round Worms. Alſo the leaves and buds of the Peach-tree bruiſed, and laid upon the belly can do as much; alſo Mints in drink and Sorrel. Purſlain boyl'd, the juyce of Succory, or the decoction of Sebeſtens, or the Sebeſtens themſelves boyl'd and eaten are very good. Alſo the aſhes of burnt Harts-horn is thought very effectual for this uſe, eſpecially of that which growes on the right ſide of the Stags head. It is burnt thus: Break the Harts-horn, and put it into a new earthen Crucible, and lute it well, put it into the furnace and let it burn till it be white. *Scribonius Largus*, *c.* 141. gives it thus: Harts-horn, ſaith he, raſpt with a workmans raſp, with water of Sebeſtens boyled, give 4 or 5 ſpoonfuls of it, which were ſoked the day before in 3 cyathi, then bruiſe and give it, adding the water to it. An Oxe ſhank burnt, and drank with Milk, drives out round Worms, ſaith *Galen*. *Coſtus* with water drives forth broad Worms of the belly. *Galen de com. Ther. ad Piſ.* Cardamom, Garlick eaten. The leaves of female Fern taken with Honey in a Lohock. But the root of the male 3 drams with Honey-water drank, will drive them forth, but better, if it be given with ſo many oboli of Scammony, or black Hellebore. Alſo the root of white Chamæleon, drank a ſawcer full, for which uſe it is drank with ſharp Wine and the decoction of Origanum. Walnuts eaten largely, the pill of the Mulberry-root boyled in water and drank; beſides that it looſneth the belly, it will force out broad Worms; alſo the decoction of Pomgranate roots drives them out and kils them. The decoction of Pomgranate pils can do as much. The root of wilde Bugloſs a ſawcer full, with Hyſop and Cardamom drank, doth the like. *Ruellius* the Interpreter of *Dioſcorides*, ſeems to have followed *Paulus*, who ſay that with Hyſop and Cardamom: but *Marcellus* ſaith, with Hyſop and Creſſes drank, it will drive forth broad Worms, what was ſaid before of Turnſoil. *Marcellus* ſeems here to follow *Galen lib. 6. de ſimp. fac.* who writes that a ſawcer full of it is good drank with Hyſop and Creſſes. But the juyce of Cedar kils Aſcarides, and ſo doth Calamint, the juyce of it being drank or given in a Clyſter. The decoction of Wormwood, mingled with oyl and given Clyſter-wiſe, and the decoction of the leſſer Centory given with Salt-peter and Honey, hath the ſame force, or the decoction of the wilde Gourd, of wilde Saffron, if the right inteſtine were firſt emptied with ſharp pickle. The root of female Fern drank for three daies in 3 drams of Wine, drives forth Aſcarides. Alſo old Hogs greaſe put into the Anus, is excellent good.

The methodical Cure of round Worms, chiefly out of *Paulus* and *Aetius*.

Both *Paulus* and *Aetius* teſtifie that Feavers commonly accompany round Worms, and we found it true by daily experience. When therefore there is a Feaver, ſometimes we muſt take care to cure the Feaver and the Worms, and ſometimes taking little care for the Feaver, we muſt ſtrive to drive the Worms out of the belly. For many that have neglected them have died torn and eaten up by them, and ſome ſay they have ſeen them come forth at the groins. But we muſt firſt kill them all, and then drive them forth; they are killed chiefly with bitter things. When therefore the cure is common both to the Feaver and the Worms, the more ſimple remedies are convenient, and where the diſeaſe is uncertain we muſt uſe things that are more milde. For the Feaver is exaſperated with ſtrong remedies if we ſhould be miſtaken; but when we are certain how the matter is, we muſt wait for the times of the diſeaſe. For about the firſt daies, and the rather if they ſhould appear then, we muſt uſe ſtronger remedies. But thoſe that appear when the diſeaſe declines, are more eaſily cured, and the better if there be no inflammations or tenſions of the bowels. As *Hippocrates* ſaith well, *lib. Aph. 1. cap. 24.* In acute diſeaſe but ſeldome, and that at the beginning we muſt uſe purging Medicaments; and this muſt be done with premeditation, for theſe ſwell moſt, and are agitated as 'tis often ſeen, and therefore about the beginning of thoſe diſeaſes, we may uſe ſharper means with profit, but there muſt be much caution, and premeditation uſed therein. Firſt examining whether the patient can endure ſuch remedies, and be prepared rightly for them, and whether we may expect a right Criſis by giving them. For there is no ſmall danger in an acute diſeaſe, as the ſickneſs of Worms is, to uſe ſharp remedies, becauſe all ſuch meaus are potentially hot. Therefore they that ſuffer inflamations and extenſions, muſt have Cataplaſms of Linſeed, with the like quantity of meal of Lupins mingled, or elſe moiſt fomentations of oyl of Camomil, Wine, tops of Wormwood, and Aloes laid to their Præcordia; but where moderate Feavers moleſt, give children before all meats, the decoction of Myxato-drink, or give them the Sebeſtens themſelves to eat with Mints. For theſe things wonderfully help thoſe are troubled with Worms, either becauſe, ſaith *Serapion*, they ſtick by reaſon of their ſweetneſs to them, or elſe theſe are ſo glutinous, that they cannot be parted from them, and ſo muſt come forth with them. For Myxa are very clammy, that in *Syria* the beſt birdlime is made of them called Damask-birdlime: wherefore becauſe by their clammineſs they bring forth Worms, if they trouble the ſtomach, they muſt be given by the mouth; but if they be in the belly and guts, by clyſter: but to ſuch as are come to ripe years, ſtronger remedies may be given, as the decoction of Wormwood or Southernwood, or the force of the root of the ſowr Pomgranat boyled to thirds, alſo three ſcruples of waſht Aloes is given, which is the moſt commendable remedy for thoſe that are ſtrong: alſo we uſe unwaſht Aloes, and both, if they be feaveriſh, and but three moneths old. Earth-worms with boyled ſweet Wine may be given confidently; but if they will not drink ſweet wine, give them with water and honey, or as you think fit, fearing nothing, not deſpiſing the meanneſs of it, give 5 or 7. But if it be not a naked ſuſpicion, but a certain knowledge that there be Worms, and that a proper cure belongs to them, then you muſt lay on Cataplaſms with Lupins meal boyled in ſweet Wine, to which alſo ſometime a root of Briony muſt be added. In the mean time anoint the navil well with Buls gall, or Gith bruiſed with womans Milk, or with Wormwood, or Southernwood, or Briony mixed with fat old Figs: anoint all the *Spina dorſi* with Deer-ſuet, and cover the upper belly with a Cerate made of Wormwood and Cypreſs oyl. Moreover a Suppoſitar muſt be put up where the belly is bound, eſpecially for children, and if it profit not, then give a Clyſter, the vigour of the diſeaſe abating, made of the decoction of Wormwood, or Southernwood, or Centaury, with Honey and Nitre. And we ſhall endevour to draw them out by ſuppings, that make the paſſages ſlippery, ſuch are oyl of unripe Olives, ſupping up by little and little two ſpoonfuls of it, for as it is bitter it kils Worms, and as it is glib it drawes them forth with the dung. But we muſt alwaies increaſe the potions of oyl for they are very commodious. The Worms come forth, ſome yet alive, but they are giddy, and as we may ſay half killed, and many come out dead with the excrements. Moreover Worms will breed when there is a ſcowring of the belly, we muſt cure them by ſtopping the flux, and by bettering the concoction with meats and Cataplaſms. For the more the flux growes, the more the Worms breed; and when the flux ceaſeth, the Worms do the like: wherefore we muſt diligently endevour that the belly may be ſtopt and ſtrengthned; we muſt therefore add to ſuch Cataplaſms as ſerve to ſtop other fluxes, ſuch things as we ſaid to be good againſt Worms, and that cauſe no fluxes, ſuch as are Wormwood, Southernwood, Santonicum; alſo Pomgranate pils, Acacia, Hypociſtis, Balauſtia, and the like, with raw Barley-meal. Alſo Cerats laid on muſt be made of theſe. Alſo ſuppings muſt be uſed amongſt all which the juyce of Plantain is beſt; and the dry Plantain, for it is good both againſt the flux and the Worms. Farthermore the VVine of the Pomgranate preſſed forth with ſhell and all helps exceedingly. But for nauſeating that ariſeth from VVorms, and gnawing of the ſtomach, a grain of Salt held in the mouth, and melted and ſwallowed down, profits wonderfully, for it ſhould ſeem the tartneſs of it, makes them preſently fall down. But if a hickop ariſe from the ſame cauſes, pils are good, that have the juice of Ridder-ſpin, Wormwood, Santonicum, Water-mints, Scordium, of each four penny weight, boyl them to the thickneſs of Honey, then add fifty penny weight of powdered Aloes, and make pils of all, and ſwallow a penny weight, for this will take away the hickop, and kill the Worms. But if from the Feaver or filthy vapours ariſing from Worms, or the fumes of Medicaments (as moſt of thoſe are that are given againſt Worms) riſe to the head, ſo that there be great pain thereof, then anoint the forepart of the head, the forehead and temples with oyl of Roſes, or the juice of Acacia, or of Hypociſtis mingled with it, for it is moſt effectual. Others lay on leaven with a little Saffron and Vinegar, on theſe parts being anointed: for this cures all intemperate ſleep, and other perverſe affects. But amongſt thoſe men call Syrups, ſyrup of Wormwood, Calamint or Horehound are commended: or make one thus: Take juyce of Mints, Elecampane root, Wormwood, Rue, purified, for it is taken the ſediment being caſt away, of each of them haf a hemina in weight; of the juyce of Succory and Graſs, of each of them ſeven cyathi in weight, infuſe in theſe torrefied Harts-horn, Sumach, Purſlain ſeed, and flowers of wilde Pomgranates, ſtrain the decoction and make up all with Sugar, or the pureſt Honey of *Athens*. *Another*: Take Southernwood, Calamint eight penny weight, Horſe mints, Elecampane-root freſh, ſix penny weight, boyl them in water to a third part: this decoction is given with ſyrup of Wormwood, or Oxymel of Squils. Alſo Wormwood-wine is much commended for theſe uſes, but it is made divers waies, for ſome let down Celtick nard 40 drams bound in a linnen clout, into a meaſure of new Wine, and after 40 daies they ſtrain it. Others caſt a pound of Wormwood into 20 ſextarii of ſweet Wine, and a ſixth part of Pitch, Roſin, and after ten daies they ſtrain it, and lay it up for uſe. A ſyrup againſt Worms, with a Feaver and the ſymptomes: Take ſixteen penny weight of Graſs-roots, Purſlain-ſeed, ſowr Dock, of each eight penny weight, ten ſebeſtens, boyl all to thirds, to theſe add the juyce of Pomegranates, and Oranges, or ſowr Wine, of each one and half cyathus in weight, as much of juyce of garden Succory, the beſt Sugar what may ſuffice, boyl them to a ſyrup: you may give Infants half an ounce, and young children one ounce without danger. A Julep that ſhall help thoſe are affected with Worms: Take Dittany of Crete, Gentian Zedoary, Arabian Coſtus, one penny weight, ſeeds of Coleworts, Dill, Wormwood, Purſlain, of each alike as much; water of Mints, Wormwood, Graſs, of each half a hemina weight, boyl them to thirds and ſtrain them, to theſe add of the beſt Sugar twenty penny weight. But in a Feaver you may give the decoction in water, or Graſs-roots. Wheat, Barley, of each fifteen penny weight, to a large quantity to drink. Another moſt effectual and very ſweet: Diſtilled water of Sorrel, Roſes, Graſs, garden Endive, Bugloſs, juyce of Pomgranates, of each one hemina weight, ſeeds of Purſlain, Orach, Sumach, Citrons, of each three penny weight; Coriander-ſeed, Myrtle-berries, wilde Smallage, of each two penny weight, ſeeds of ſowr Dock, Coleworts, Cummin, of each the ſame weight; red Roſes, Tormentil, Barberies, of each two penny weight, ſo much weight of Balauſtia, five penny weight of the aſhes of burnt Harts-horn, white Dittany of Crete eight penny weight; the ſhels of Mulberry-roots barked. Fern-roots, of each two penny weight, ten Sebeſtens, one penny weight of red Coral, white Sugar what may ſuffice, make a Julep. But the moſt preſent remedy of all is that the Apothecaries call commonly *Diaturpethum*, but chiefly with Rhubarb, three drams of it being ſwallowed down; which being it is proved by long experience, ſo it hath alſo great reaſon for it, that it ſhould be preferred before all other remedies. For children enticed by the ſweetneſs of the Antidote, will take it down willingly, and the Rhubarb kils the Worms, and the parts are ſtrengthned by it. The Turpeth drives them from their neſts, and the reſt of the ingredients do not only make it pleaſant but harmleſs, ſo that it is moſt ſweet, harmleſs and ſtrong all at once: it is made thus: Take white Sanders and red, Violets, Ginger, of each two penny weight; Anniſeed, Cinnamon, Saffron, Maſtick of Chius, each one penny weight; Myrthita, which the Apothecaries call Turpeth, eight penny weight; Rhubarb, ten penny weight, Scammony as it is uſually prepared, four penny weight, the pureſt Sugar 190 penny weight, make up all with that and make Troches (as the Greeks call them from the form) each three drams weight, where you have need of them, give one for this diſeaſe. Another Antidote: Take Rhubarb, Saffron, Scammony, Wormſeed, Dittany of Crete, each two penny weight, the beſt Sugar eighty penny weight, make them up with Graſs-water, and make Troches; one penny weight of this is given to Infants without danger, being diſſolved in Graſs-water. The powder I uſe is good, and a powder thus prepared: Take Rhubarb, Agarick, Germander,

Compound internal Remedies to kill and force out Worms.

Compound external Medicaments againſt Worms.

of each two penny weight, Sea-moſs four penny weight, Wormſeed and Purſlain-ſeed of each two penny weight, unwaſhed Aloes ſix penny weight, give a ſcruple of this or two oboli in Wine to children ſafely. Sometimes all theſe are bruiſed. and ſifted and made into pils with the juyce of Wormwood or Mints, and three of them are ſwallowed down. *Another for the ſame by another Author*: Take Harts-horn burnt, the leſs Centory, Mints, Penniroyal, Water-mints, Wormwood, Santonicum, Germander, Lupins, of each four penny weight, bring all to very fine powder and give it with Milk, Vinegar, or Oxymel, or any way. *Another of the new Writers that is approved*: Take Rhubarb, Coriander-ſeed, Baſil-ſeed, Plantain, Pomgranate pils, Carway-ſeeds, Sumach, of each two penny weight, Carduus Benedictus ſeed, ſhavings of Harts-horn, and of Ivory, of each eight penny weight, the bark of the roots of Mulberries pill'd, Colewort-ſeeds, Citron Apple-ſeeds, bark of Willowes, of each ſix penny weight, Purſlain-ſeed, Dittany of Crete, four penny weight of each, Pearls, red Coral, of each two penny weight, dry them and bring them to fine powder: one or two drams of this with Wine in winter, and where there is no Feaver, or with Oxycrate in ſummer, or to thoſe that are in a Feaver is ſafely given. An Antidote that kils Worms, diminiſheth a Feaver, and helps againſt pains of the heart: Take Wormſeed, Sea-moſs, ſeed of wilde Smallage, Harts-horn burnt white, of each alike, infuſe them all three daies in Vinegar, wherein let theſe things firſt boyl, Purſlain-ſeed, Sorrel-ſeed, Sumach, Coriander, Colewort-ſeed, and a little Myrrhe; then dry them, and add to them Orange-ſeeds two parts, Citron-ſeeds one part, make them up with Sugar diſſolved in the Wine of Pomgranates, and make morſels, to which you may add ſome little Cinamon and Musk. But becauſe it hath been ſeen oft-times that Medicaments outwardly applied have done much good againſt Worms, it is but reaſonable that I ſhould ſet down the manner of them: For by theſe we not only defend our bodies, but alſo we kill the Worms and drive them out dead: wherefore this may ſuffice that hath: Lupin-meal, leſs Centory, leaves of Peach-tree and Horehound, bruiſe them with Poſca and lay them to the belly. *Another tryed by our newer Phyſitians*: Take the leſs Centory boyled in the oyl of Peach-kernels, anoint the Navil with this, and it will drive forth the Worms. *Another*: Toſt Barly-bread, and infuſe it in Vinegar, then preſs it out, and infuſe it again in the juyce of Peach-leaves, lay it on warm to the belly with a linnen clout. Others mingle Lupine meal. Southernwood and Buls gall. *Again*: Take Lupine-meal, Centory the leſs, of each four penny weight, Aloes, Buls gall, of each 4 oboli, make them up with juice of Wormwood, and laid to children very young. *Another*: Take Wormwood, Gith, aſhes of Harts-horn, of each a like quantity, mingle them with Honey and anoint them. *Another good for the ſtomach, that kils Worms, and is good againſt the belly flux*: Take Wormwood, Mints, Roſes, Santonicum, Lupin-meal, of each eight penny weight, toſted bread, infuſed in the ſharpeſt vinegar four penny weight, Buls gall ſixteen penny-weight, Mountain-nard, Water-flag, (Gallia called Moſchata) Cloves ſweet Cane, Nutmeg, Galanga, Carway-ſeed, of each twelve penny weight; Hippocyſtis, Acacia, Sumach, of each four penny weight, oyl of Myrrhe, juyce of Mints, and Wax what ſufficeth, make a plaiſter. If there be no Feaver, the navil and thighs are to be anointed with Honey, in a hot affect with Milk, and then a little Aloes is ſtrewed on, for it wonderfully kils Worms, alſo the noſtrils are profitably anointed with Theriac and Vinegar. *A Cerate againſt Worms out of* Paulus: Take Aloes, VVormwood, Lupin-meal, Seriphium, Gith, of each ſix ſcruples, VVax an ounce and half, oyl of Camomel what may ſuffice, make them up being bruiſed dry with Buls gall. *Another out of* Aetius: Lupin-meal, VVormwood in powder, Barley in fine powder, of each ſeven penny weight; Buls gall, eight penny weight; raſping of Harts-horn, four penny weight; VVax, twenty ſix penny weight; weak oyl, twelve penny weight. *Another approved*: Take Aloes half an ounce, Saffron two oboli, juyce of Pomecitrons as many drams, mingle them with ſweet white VVine, and apply them to the heart. *Another approved*: Take Buls gall, 30 penny weight, choiſe Frankincenſe 128 penny weight, Strong-water 2 heminæ, diſtil all theſe chymically and in a glaſs veſſel covered with VVax, keep what comes forth, and uſe it when occaſion is. *Another very excellent, that kils and caſts forth the Worms*: Take VVormwood, Gentian, Centory the leſs, bark of the roots of Mulberies, Bay-berries with the kernels taken forth, bark of the roots of the Pomgranate-tree, Aſh-root pils, of each 16 penny weight; Marjoram 14 penny weight; Southernwood Aloes, Myrrhe, Agarick, of each 12 penny weight, Dittany of Crete, Germander, Savin, of each 8 penny weight; Poly-mountain, Graſs-roots, each 10 penny weight; Stæchas, Chamædrys, Chamæpity, Pomecitron-ſeed, each 6 penny weight; aſhes of Harts-horn, Santonicum, 4 penny weight, Coloquintida-ſeed, 2 penny weight, Buls gall 24 penny weight, the ſharpeſt Vinegar 1 hemina and 3 cyathi, a gallon of bitter oyl of unripe Olives, and 6 heminæ; let the dry things be beaten into moſt fine powder, and mingle them ten daies together, on the eleventh day let them boyl in a double veſſel until the Vinegar be conſumed; when theſe are cold, add one hemina of oyl of Bayes, bitter Almonds, and Peach-kernels, of each beaten 24 penny weight; all theſe, as the former, muſt be put into a glaſs veſſel, and be diſtilled. *Another moſt excellent and ſure*: Take Peach-kernels, Garlick, Earth-worms waſhed in Vinegar, of each 24 penny weight; Gentian, Dittany of Crete, Graſs-roots, and Piony, pils of Mulberry roots pilled, of each 52 penny weight, Saffron, ſweet Cane, Cloves, Aloes, Calbanes, Coloquintida, Ginger, Nutmegs, Caſſia, long Pepper, Frankincenſe, fruit of Balſome, red Coral, of each 8 penny weight; the beſt Theriack 12 penny weight, Mints, Wormwood, Centory the Leſs, Peach-tree leaves, headed Leeks, Penniroyal, Calamints, Plantain, Rue, black

Horehound, Bay-leaves, Sage, Marjoram, Betony, Scordium, Orange-pils, and bark of Mulberry roots, of each 16 penny weight; ſeeds of wilde Smallage, Purſlain, Radiſh, Coleworts, Santonicum, Plantain, headed Leeks, ſea Moſſe, garden Smallage, (that is, Parſly) each 12 penny weight; the ſharpeſt Vinegar, juyce of Quinces, of each one hemina; oyl of Maſtick, Spike, liquid Bitumen, (they call it *Petroleum*) oyl of Bayes, of each 16 penny weight; the oldeſt Oyl, or oyl omphacine, 8 heminæ; beat the dry things to powder, and mingle them, and in a glaſed veſſel ſet them under Horſe-dung for a moneth, then boyl them in a double veſſel to thirds, ſtrain them when they are cold, and ſtraining them out forcibly, keep in a glaſs, what comes forth for your uſe. But employ it thus: firſt anoint the temples, then the noſtrils, next that the ſpondyls of the neck, four of them next the throat, then anoint the pulſes of the arms, next to that the ſtomach, I mean by the ſtomach the mouth of the ventricle, taking the word ſtomach improperly, for properly it ſignifies the throat; wherein I muſt not paſſe over the error of our new Phyſicians, who in affects of the mouth of the ſtomach, lay their remedies upon the back over againſt it, which is both contrary to *Galen*, and alſo to reaſon, 3. & 10. *de morb. cur. libro.* yet I believe *Thomas Linacer* did not rightly interpret that place, if I be not miſtaken, who was indeed otherwiſe a very learned man, and moſt skilful in the interpretation of Authors; but it may be that Greek Book was faulty, or for ſome other reaſon. Alſo it ſeems agreeing to reaſon, that for affects of the mouth of the ſtomach, the remedies ſhould be applied before, immediately under that round griſtle, which they call the ſhield or ſword-faſhion griſtle, for at this place the mouth of the ſtomach beſt receives the force of Cataplaſms and Cerats, foraſmuch as there are no bones to keep it off, but the properly called ſtomach, that is, the throat is fenced with moſt ſtrong bones, as under a fence; for it hath the breſt bones before, and the back behinde. But this is ſpoken by the by. Now between the wetting of one place, and of another, we muſt ſtay ſo long as a man might walk about 40 paces; and when theſe places are wet, we muſt uſe more diſtance of time, when we anoint the reins and the navil. And theſe three remedies are ſo certain, that unleſs a childe be ready to die, he will recover from the point of death only by anointing theſe parts. That which is called the broad Worm abounds in thoſe that have no Feaver, and breeds in long during diſeaſes. The method to cure theſe is the ſame as for round Worms. For bitter and ſharp potions are moſt in uſe, and to eat Garlick or Calamint, Dittany or Penniroyal; we muſt eat Garlick largely for three daies, and old ſoft Cheeſe. Next let a man eat of *Macedonian* Fern dried and powdred and ſifted, 8 penny weight, with as much Honey as he pleaſe; after four hours give the patient Aloes, and Scammony, of each one half dram, in Honey-water 4 cyathi, when he begins to riſe to ſtool, ſet hot water under; Alſo give water to drink in which Lupins, or the bark of Mulberry-tree is boyled, or to which there is added a ſawcer full of Pepper, or bruiſed Hyſop, and a little Scammony: or elſe after the eating of Garlick we ſpeak of, let him vomit, and the next day let him gather as many Pomgranate roots as he can hold in his hand, and bruiſe them and boyl them in 3 ſextarii of water, to a third part remaining, let him put a little Nitre to this and drink it faſting; three hours then paſt, let him take two Potions either of water or ſalt pickle added to it; Then pour forth the hot water into a baſon, as I ſaid: alſo give Earth-worms to drink, for they are exceeding good. But the juyce of mouſe-ear is proper for them, drank two cyathi with one cyathus of Ale: for it quickly drives forth the broad Worms. But this remedy following muſt firſt be drank; nor is it thought unfit for thoſe that have Worms, eſpecially if they have no Feaver. Out of *Paulus*. It conſiſts of red Nitre, Pepper, Cardamoms, of each equall parts, mingle all theſe and give of them a ſpoonfull in Wine or hot Water, for it quickly brings them out.

The Cure of broad Worms, chiefly out of *Celſus, Oribaſius, Scribonius, Paulus*, and *Aetius*.

Victoriatus, is a piece of Money of 3 oboli, or half a dram.

Another, which is an Electuary of *Paulus*. Take Pepper, Bay-berries cleanſed, *Æthiopian* Cumin, Maſtick of *Chios*, of each alike, Honey what may ſerve turn, give one ſpoonfull in the morning, and let them ſleep upon it; but if you would do this more effectually, adde Nitre as much as of each. Another of the ſame. Take Fern a ſawcer-full, Nitre two peny weight, give it with a ſpoonfull of water, after evacuation, but it is better to adde a little Scammony to it. Another of the ſame, and of *Aetius*. Take of the bark of the root of a ſowre Pomegranate, ſcraped from the upper part, Pepper, of each four peny weight, Cardamoms ſix peny weight, Horehound two penny weight, the beſt Honey what is ſufficient, give one ſpoonfull of it after eating Garlick or Leeks. But that the diſeaſe may be wholly driven away, give ſome Theriac, for *Galen* highly commends it for this uſe. *Another out of Oribaſius*, that he alwayes uſed by the experience of his maſters, and had a long time proved it for good. It contains Scammony one Scruple, Euforbium as much and half as much, the powder of burnt feathers one ſcruple, Nitre in weight one Siliqua, give this to drink in honey'd or ſweet wine. But it will fall out better if he firſt eat Garlick or ſome ſharp thing. Alſo here is a Plaiſter of another Author, that is good againſt all Worms, eſpecially broad ones. Take Lupines, Bay-berries cleanſed, Bulls-gall, lay theſe on the navel, and binde it on with a ſwathe-band for one day and night, or elſe for two or three dayes. Againſt broad Worms from another Authour. Take Southern-wood, ſcraped Harts-horn, *Coccus gnidius*, and *Seſamum*, of each one penny weight, Cardamoms three oboli, give this to drink with Oxymel. Another for the ſame uſe. Take Gum Arabick, one peny weight, Fern three peny weight, Cardamoms one peny weight, Nitre three peny weight, give it in Hydromel or Ale. Alſo againſt the ſame, is the Antidote called *Diaphereon.* Take Fern eight peny weight, Scammony, Gith, Cardamoms, ſalt Nitre, of each two peny weight, give it in Oxymel or Ale, but adde Polypode four peny weight. It is reported, that Aſcarides will trouble children, and ſuch as are come to their full growth. But children are continually provoked to excretion, and after egeſtion they are the better moſt commonly, but thoſe that are come to their full growth, obſerving the trouble of ſuch things that are the cauſe of them, will thruſt their fingers into their fundaments, and pull them forth, and further they will foment and abate theſe biting pains, with peble-ſtones that lie in the Sun on the ſhores, or elſe with ſtones put into the fire. But ſome for fear will admit of none of theſe helps; yet this diſeaſe ought not to be neglected, for Worms will not eaſily yeeld to remedies, nor are they eaſily driven forth, but by ſtrong means. Wherefore children muſt be purged with Suppoſitars made of Honey and a little ſalt, or Nitre, or ſharp pickle, or with the decoction of Wormwood mingled with Oyl. Alſo there ought to be a ſtronger purging, and when they have voided their excrements, the Longanum, which is the place affected, muſt be anoynted with it. As for Simples, they are Acacia, Hypociſtis, the juice of Sumach, with liquid Allome or Nitre, but the Compounds are the Troches of *Andron*, and thoſe that are called *Sphragides polydiæ*, and with fat Wooll and ſuch like; for the fleſh is made ſtronger by Aſtringents, and loſeth its readineſſe to breed living Creatures, and thruſts forth the Aſcarides. *Andron* his Troches are made thus. Take flowers of Garden Pomegranates ten peny weight, Galls eight peny weight, Myrrhe four peny weight, long Birthwort, and as much Vitriol, Saffron, ſciſſil Allum, dregs of the Oyl of Saffron, *Myſi*, Frankincenſe, of each two peny weight, they are powdered and mingled with aſtringent wine, or with Vinegar. But *Sphragis polydia* is thus. Take ſciſſil Allum three peny weight, Frankincenſe four peny weight, Myrrhe as much, or eight peny weight, Vitriol two peny weight, flowers of tame Pomegranates twelve peny weight, Bulls gall ſix peny weight, Aloes eight peny weight, make them up with ſharp wine: But that which is made with fat Wooll is thus made. Take fat Wooll forty peny weight, lead powder, ſhales of Bitumen, of each ten peny weight, round ſciſſil Allum, Pomegranate ſhells, Galls, *Myſi*, Vitriol, Frankincenſe, of each five peny weight, Myrrhe two peny weight, lees of Oyl eight Heminæ. Thoſe that are of riper years muſt be purged with ſharper and hotter remedies, as with Diapicra, and with Oyl mixt with wine, in great quantity, and other things infuſed, as ſalt pickle, the decoction of Centaury, with Nitre and Honey, or Coloquintida, Chamæleon, Anchuſa, Lupins; then Oyl of Cedar muſt be given in Clyſter, and after that reſt; often repeating the ſame method of cure, alſo take ſalt fleſh, ſcraping away the fat, and cut it long and round, and thruſt that into the Anus, and binde it in, to hold it there ſo long as may be, and then loſe it, and inject again the foreſaid things, and let us often repeat the ſame remedies.

CHAP. XXXIV.

Of Worms that breed without the Bowels, and chiefly of Maggots.

THE living Worms that are bred in the head, the brain, the liver, milt, bladder, reins, muſcles, proceed from the ſame cauſes Worms in the guts doe, and are deſtroyed by the ſame remedies. But thoſe Worms *Hippocrates* calls *Eulas*, the Engliſh call *Maggots* or *Gentils*, they are Worms without feet, not unlike to *Aſcarides*, but that they are ſhorter a little, and thicker conſidering their length: There is no man almoſt that hath not ſeen theſe in Carrion and corrupt fleſh, and ſometimes in limbs that are dead by the negligence of Chirurgions, when as they apply a remedy that putrefies together with the wound or ulcer. *Hippocrates* calls *Eulas* Worms bred in dead bodies. *Suidas* calls them *ill beaſts*, *fleſh-eaters*. *Lucretius* calls them cruel Vermin, and *Plutarch*, Worms from corruption and putrefaction of the excrements boyling forth. *Homer* in his Iliads, 19 and 24. ſaith they are Worms ariſing from putrid matter, that are far ſmaller in the ears than in other ulcers: And *Cælius* writes, that they are called *Eulæ*, which *Latin* writers call improperly Earmoths, ſince they agree with them neither in form nor figure nor in any mark whatſoever. Laſtly, thoſe ſmall Worms that breed from Flies egges in fleſh, in Summer, (the Engliſh call them *Flieblowes*, and the Germans *Maden*) as *Camerſius* obſerved, are reckoned amongſt *Eulæ* or Maggots. But thoſe *Eulæ* or Maggots that breed in Hogs fleſh or Bacon, have a proper name given them by *Feſtus* and *Perottus*, who call them *Tarni*, *Maggots*. Have either a tayl, or they are without a tayl: Hens feed on both kindes of them, and ſo it is likely other Birds doe. To make a woman conceive *Hippocrates* preſcribes three or four parts of thoſe that have tayls, bruiſed with Origanum and Oyl of Roſes, to be laid to the mouth of the matrix. In his firſt *de morb. mulier.* and in another place of the ſame book, he bids apply with Wooll the heads of theſe Worms mingled with the Secondine of a woman, and Allum of *Egypt*, and gooſe greaſe.

It is reported that *Democrates* of *Athens*, when he was a youth, and was ſick of the Falling ſickneſſe, went to *Delphos*, and enquired of *Apollo*, what he would adviſe him to take againſt this troubleſome diſeaſe, and that *Apollo* anſwered;

Take the greateſt Maggot you can finde
In a wilde Goats head and faſt binde
That in a ſheep-skin, &c.

Democrates having heard the anſwer of *Apollo*, he repaired to *Theognoſtus Democratius*, who was then ninety yeers old, and he wondring at the providence of God, expounded this Oracle that was ſo doubtfull: Saith he, by nature the head of a wilde Goat is full of abundance of Worms, neer to the baſis of the brain, and when he neeſeth, many Worms fly forth at his noſtrils; you muſt therefore lay a garment under the Goat, that theſe Worms may not touch the ground, but that you may catch them before, and ſo taking one or two of them, put it into a black Sheep-skin and binde it to your tender neck, and this ſaith he, is a natural remedy againſt this diſeaſe. *Theſe things are good againſt Maggots bred in ulcers and wounds in man or beaſt.* Firſt cleanſe the parts affected, with the gall of Frogs, the juice of Celandine, Sea water, or brackiſh water, with the decoction of Honey, Worm-wood, Horehound, Peach-leaves, Groundſel, juice of Betes, and Wine; then to kill the Worms, ſtrew on Pepper, Salt Peter, or Allum in powder, Hellebore, Henbane, round Birthwort, Vitriol, or waſh the ſore-places with the juice of river Calamint, or the decoction of Centaury, or with the juice of Leeks or Horehound. *Johannes Agricola* preſcribes Bugloſs, but *Pliny* preferres Ariſtolochia with Honey; and *Paracelſus* commends juice of Celandine. *Montanus* commends Nitre before all other things. *Vegetius* bids to waſh the ſores early in the morning with cold water, and to drench them throughly, for he affirms, that the Worms by this means will be ſo contracted with cold that they will ſoon fall down. *Aetius* commends Poly, and Worm-wood mingled with Pitch, and he commends the anoynting of the parts with faſting ſpittle. *Hildegardis* ſtrews on the pith of Smallage, the ſhell of a Tortoiſe, Bees that are dead in the Hive, the leaves and the bark of the Plum-tree, powdered and ſprinkled on the ulcers. *Bayrus* applies quick lime tempered with the ſharpeſt Vinegar. The places where the Worms are being ſprinkled with the juice of *Hippia*, will be preſently cured, ſaith *Tardinus*; but what this *Hippia* is, no man hath determined: Some think it is wilde Tanſey, ſome ſay 'tis Potentilla; *Geſnerus* underſtands it to be Chickweed, which by its ſharp and Nitrous faculty (as the Betes have) kills all the Worms.

CHAP. XXXV.

Of Nits.

The Name and Deſcription.

Nits in the *Greek* are called *Dorcas* and *Cumidas*, the Italians call them *Lendine*, the Spaniards *Liende*, the Germans *Niſſ*, the Engliſh *Nits*, the Muſcovites call them *Guida*. Theſe are little white living creatures, moſt like to *Syrones*, if they had but feet, but they are twice almoſt as ſmall; and their body is ſomewhat long, out of which *Ariſtotle* ſaith that nothing elſe can breed: Crackt between the nails they make a noyſe and die, they are not found only in the hair and eyebrowes of men, but they abound alſo in the hair of Oxen and Cattel that are lean, and wanting feet, yet they will ſtick ſo faſt ſometimes, that you may as eaſily pull off the hair by the roots as pluck them off. *Trotula* not improperly calls them τριχοβρῶτας, hair-eaters, for as Snails live on the juice of herbs, ſo theſe live on the moyſture of the hairs, and feed thereon. The Philoſopher affirms, that they proceed from the copulation of Lice, and therefore are called their egges. They are like to the flowers of Jeſemine that grows with us. For as Jeſmine brings flowers without ſeed, ſo Lice bring forth egges without young ones in them. They die either for want of nouriſhment, or by uſing a Comb with cloſe teeth, or by the uſe of ſuch Medicaments as the old and new Phyſicians preſcribe abundantly. *Pliny* mingleth Allum with Vinegar, or Vinegar with gall of a Calf, and alſo ſaith, they are killed with Goats milk. Alſo he commends Nitre mingled with *Terra Samia* and ſmeered on, and the powder of Harts-horn drank in wine. *Abenzoar* preſcribes, to anoynt the hair with the leſſer Centaury, and Alkitrum. Brimſtone in Vinegar takes away Nits, as alſo Oyl mingled with Lie. *Marcellus* doth very much commend Hogs dung mingled with wine and juice of Roſes; alſo to anoynt with Honey and Sal Armeniack, but chiefly Oyl of Radiſhes with a ſtrong lie. *Hildegardis* provides a lie made of Date-ſtones, which being mingled with Oyl of Radiſh roots, will kill the Nits. *Ardonus* mingles ſome ſublimate of Quick-ſilver with ſpirit of wine: And he ſaith alſo, that if the head be firſt wet with a Hens egge, and then with the juice of Sowbread, or Sea-water, that the [illegible] will never breed again. *Gilbert* an Engliſh man highly commends the gall of any Creature, as alſo all bitter things, cleanſers, and Aromatical Drugs, with the juice of Marigolds.

Their Originall.

Their End.

Chap. XXXVI.

Of Aureliæ, and a Wood-worm called Teredo, *without feet.*

The Name and Deſcription.

That which the *Latins* call *Aurelia*, the *Greeks* call χρυσαλλὶς, the name is borrowed from the golden colour which appears in moſt of them. It hath no mouth, nor yet any apparent parts, nor doth it void any excrements, nor yet eat, or move, unleſſe it be moved by ſome body, or hurt. That which *Pliny* writes, that a Chryſallis hath a hard body, I think that is meant in reſpect of a

Catterpillar. But that which he addes that it will move if a Spider touch it, though I know this to be true by experience, yet I doubt he borrowed thoſe words from the Philoſopher, and interpreted them amiſſe. For the ſenſe ſeems to be thus. *They move if they be touched, and they are covered with pa es like to Cobwebs.* *Ariſtotle* ſpeaks nothing here of a Spider paſſing over them, as *Pliny* ſeems to tranſlate it. *Ariſtotle* ſhuts the *Aurelia* not only out of the number of Inſects, but alſo of living Creatures, and determins them to be as it were the Caterpillars egges. But what agreement is here with an egge? That is laid by another living Creature, and is void both of actual life and motion. The Aurelia is laid by none, but is changed from one to another, for it changeth its former ſhape into another ſhape, and retains both life and motion, not in poſſibility of being, but actually. But that doth not take away the life of it, becauſe it neither eats, nor increaſeth, for Dormice ſleep all the Winter and eat nothing. The life of it doth reſemble that ſleep which is partly waking, wherein men are not properly awake, nor yet aſleep; but are alive, and move a little. But I conjecture that the Philoſopher wrote this, that he might confirm that Axiome of his to credulous poſterity, that all Inſects either lay egges or little Worms. His words are theſe. *Inſects firſt breed Worms, but that which is called Chryſallis, is an Egge, and afterwards from this is bred a living Creature, that at the third changing hath the end of its generation.* Yet it is manifeſt enough by what I ſaid before, that an Aurelia is no Egge, and it ought not to be called a generation, but a tranſmutation of a Caterpillar into this, and of this into a Butterflie. I ſay this for that purpoſe, that ſuch as adore *Ariſtotle* for a God, may remember that he was but a man, and that he was ſubject to humane errors. There are two kindes of Aurelias that I have ſeen, ſome are downy, and others ſmooth, both are of divers colours, and ſometimes they are Gold coloured, which are the true Chryſallides, and others that are but baſtard ones, are without any colour of Gold. They have their Original from the death of the Catterpillars, which as they do waſte by degrees in certain dayes, ſo by degrees their covering grows continually more hard, and changeth into an Aurelia. Theſe again the next Spring or Autumn, by degrees loſing their life, a Butterflie comes forth of them that is bred by the like metamorphoſis. What uſe they ſerve for, for the good of man kinde, I am wholly ignorant of. I know well enough how much they perplexed *Ariſtotles* wit by their wonderfull tranſmutation; and they ſet forth to us the boundleſſe power of Almighty God.

The kindes.

Their Originall.

Their End.

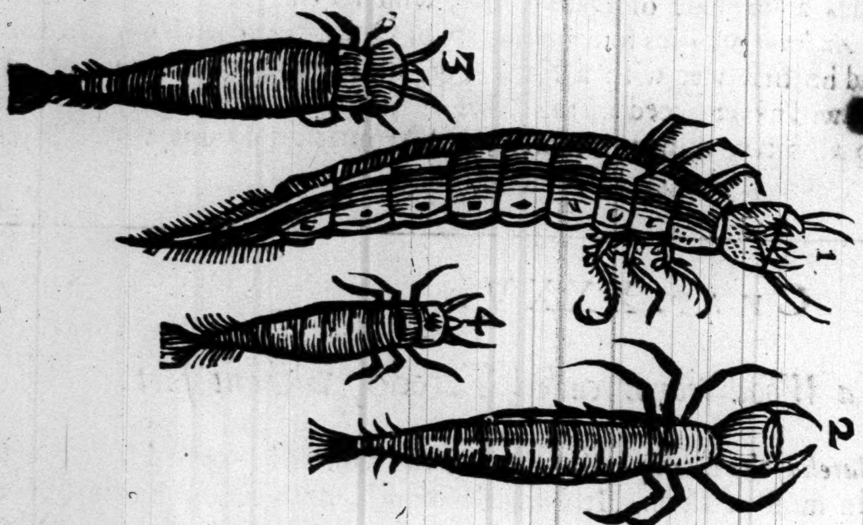
Their Uſe.

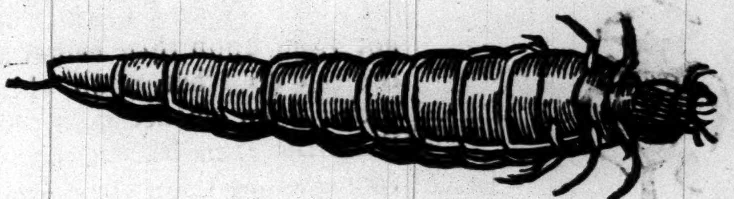
George Agricola only propounds to us the *Teredo* without feet, which from the braſen colour of it, he call *Kupter-worm*: It creeps like a Serpent, ſaith he, becauſe it wants wings and feet. It is as thick as a ſmall Gooſe quill, and it is as long as a Scolopendra: It is round, and breeds under rotten wood, and ſometimes found hard by the Scolopendra, or long Ear-wig. You may eaſily finde the figure of it placed amongſt the Scolopendræ.

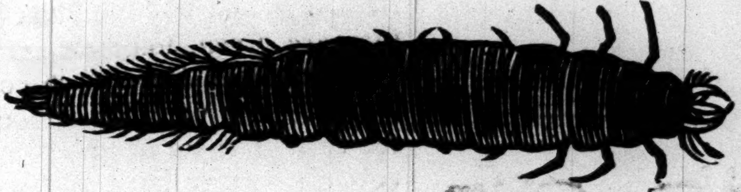
Chap. XXXVII.

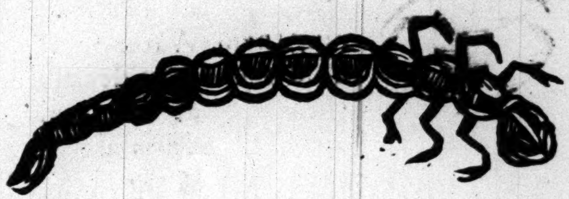
Of Water Inſects without feet, and firſt of the Shrimp or Squilla.

WEE ſaid before that all water Inſects were with feet or without feet. Some of thoſe that have feet, ſwim with ſix feet, as the Lobſter, the Shrimp, the lake Scorpion, the Evet, and the Sea-lowſe; others with four feet, ſome with more. We ſhal treat of them ſeverally. The Squilla an Inſect differs but little from the fiſh Squilla, but that it hath the ſail-yards much ſhorter, and a more red colour, or rather a more earthly colour. Some of theſe are covered with a thin ſhell, and ſome again are ſmooth and naked. Thoſe with ſhells live chiefly in ſmall Brooks, and ſtick to the roots of Reeds or water-flags: They are of a yellowiſh colour, and ſometimes of a white or Aſh-colour. They go only with ſix feet, the reſt that are joyned to them, ſerve in ſtead of fins. The naked ones are either ſoft or hard. The ſoft ones are repreſented well enough by this figure, only ſuppoſe their heads to be of a bright Bay colour, and their body died with a dark Aſh-colour. All thoſe that are covered with a hard cruſt are made with joynts, but ſome have round joynts, others other faſhions. The form of the round joynted is exactly repreſented here, if you ſuppoſe him to be eaſily dyed with a lighter red. And ſuch is the colour of the firſt and ſecond







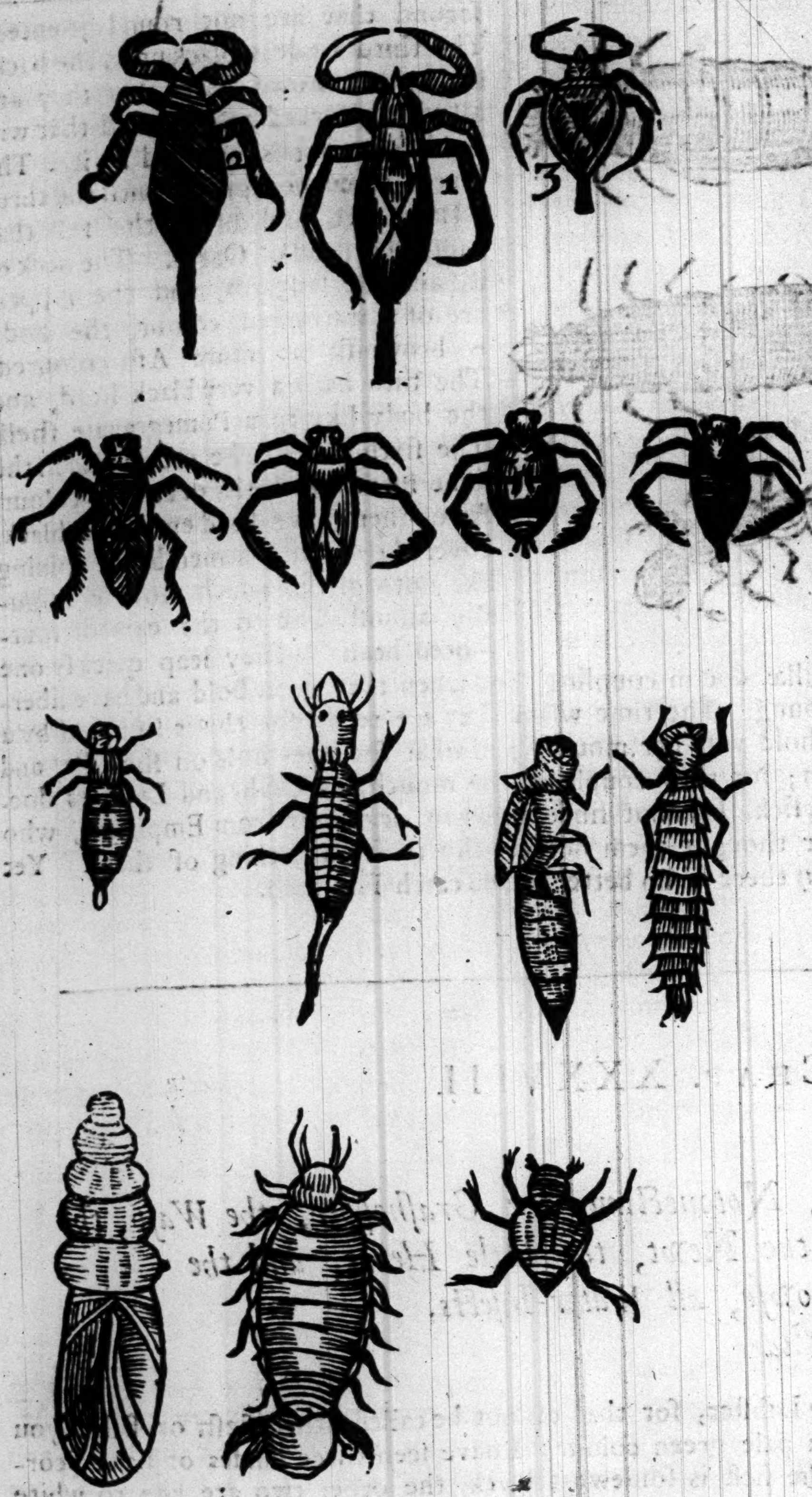


ſecond that are not round joynted. The third kinde is black upon the back, and with a brown belly; but they are all with a forked mouth, and that will hold faſt what is applyed to it. The fourth kinde moves it ſelf with the three former feet, and uſeth the reſt that hang by in ſtead of Oares. The neck of it, and the ſailyards, and the nippers are of a watry red colour, the body is browniſh or more Aſh-coloured. The fifth hath a very black head, and the body like to a Pomegranate ſhell. The ſixth ſeems to be cruel, and in the ſame form you ſee it, of an Aſh-colour. All of them have hard eyes, and black, covered over with a membrane ſhining like unto glaſſe, which move continually almoſt, like to the ears of four-footed beaſts. They leap quickly one upon the other as the Fiſhes Squillæ doe in coupling, and when they grow bold and have liberty, they fill the Females with young. The time when they are ready for this is ſignified by a gentle biting: The Female takes hold with her mouth, and what ſhe layes hold on ſhe kills, and gives part of it to her companion; for they couple at the mouth, as Crabs and Lobſters doe. But what uſe they ſerve for in phyſick, I cannot finde either in writers or from Empiricks, who either knew not theſe Squillæ, or thought them not worthy to ſay any thing of them. Yet this is certain, that in *April* and *May* there is no better bait to catch Fiſh with.

CHAP. XXXVIII.

Of the Locuſt, Scorpion, Notonectum, the Graſhopper, the Waſp, the forked Claw, the Newt, the little Heart, and the Lowſe, all Water-Inſects.

THE Inſect-Locuſt, is like the Lobſter, for that cannot be called either fleſh or fiſh: you ſee the figure of it: it is of a pale green colour: I have ſeen three kindes of Lake Scorpions, and I have them by me: the firſt is ſomewhat black, the other two are like to white



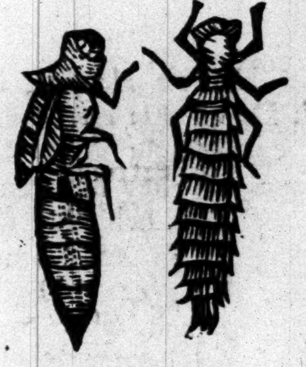
ſand: we call ſome Inſects of the water *Notonecta*, which do not ſwim upon their bellies as the reſt do, but upon their backs, from whence it is probable that men learned the art of ſwimming upon their backs alſo. Some of theſe have eyes, ſhoulders, and bodies all black, ſome are green, ſome are fiery coloured, and ſome pitch coloured. For you ſhall ſeldom ſee two of them of the ſame colour; nature hath ſo variouſly ſported her ſelf in adorning them. Water-Graſhoppers hold the form deſcribed, but their eyes are extreme black, and their bodies are aſh-coloured. The Waſp hath a browniſh body all over, except the black eyes. The Forked Claw hath almoſt the ſame colour, but it is more full, it ſeems to want eyes, but it hath them hid within, whereby it both ſees and perceives the object. The Lizard is of divers colours, and delights in catching Fiſh, it is common about the *Britiſh* ſhores, where it lyeth in wait to catch Fiſh. The *Corculus* hath the juſt faſhion of a heart, the feet and head being taken away; it hath very little black eyes, and ſix legs of the ſame colour, & each with two clawes. The Sea-Lowſe is an Inſect that is an enemy to all kinde of Whales, which by biting and tickling it puts into ſuch a rage, that they are forced to run upon the ſand, and haſten to dry land: I know nothing concerning the uſe of theſe creatures; but I ſeriouſly exhort poſterity to ſearch out the uſe of them.

]

CHAP. XXXIX.

Of the Flea or Aſellus, and the Scolopendra found in the Sea.

THE Flea, or Sea Aſellus is like to a ſoft Squilla, but it hath but four feet (as I may ſay by *Geſners* leave) and by often and long leaps it frees it ſelf from having many feet. It is called *Aſellus* from its leaping, *Ariſtotle* cals it a Flea; from its bunch-back it is called a Sow: it is of a wan colour with blackneſs; the length of thoſe that are in rivers is the breadth of ones finger, and their breadth is not above half a finger broad. But the Sea-fleas are larger, which when the tyde flowes are ſeen alſo oft-times in freſh waters. It ſhewes a wonderful deal of agility when men ſtrive to catch it, or do but look upon it.



The *Sea Scolopendra*, ſometimes is of a grey colour, and ſometimes you ſhall ſee others that are more red. Theſe are longer and leaner, that is ſhorter and thicker. I ſaw both kindes in the year 1578. in coves of Oyſters. For they are not found in the deep ſea, as *Geſner* ſuppoſeth, but in the muddy ſtanding waters, where the Oyſters are fatted, there they lye hid, are bred, and do live. *Numenius* warned Fiſher-men concerning theſe, when he ſaid;

> *See therefore that you let not ingender,*
> *The ſtupid Julii or deadly Scolopender.*

They are as *Ariſtotle* writes leſſe than the land Scolopendras, but not differing in their form. *Nonus* the Phyſitian makes of theſe a remedy to hinder hair from growing, or a depilatory, and highly commends it in his 34. Chapter. Take Frankincenſe, Vitriol, of each two ounces, ſea Scolopenders three ounces, grinde them all well, and mingle them with the powder of Quick-lime, then pull out the hairs firſt, and anoynt the places with that.

CHAP. XL.

Of Water Inſects without feet, and firſt of Oripes.

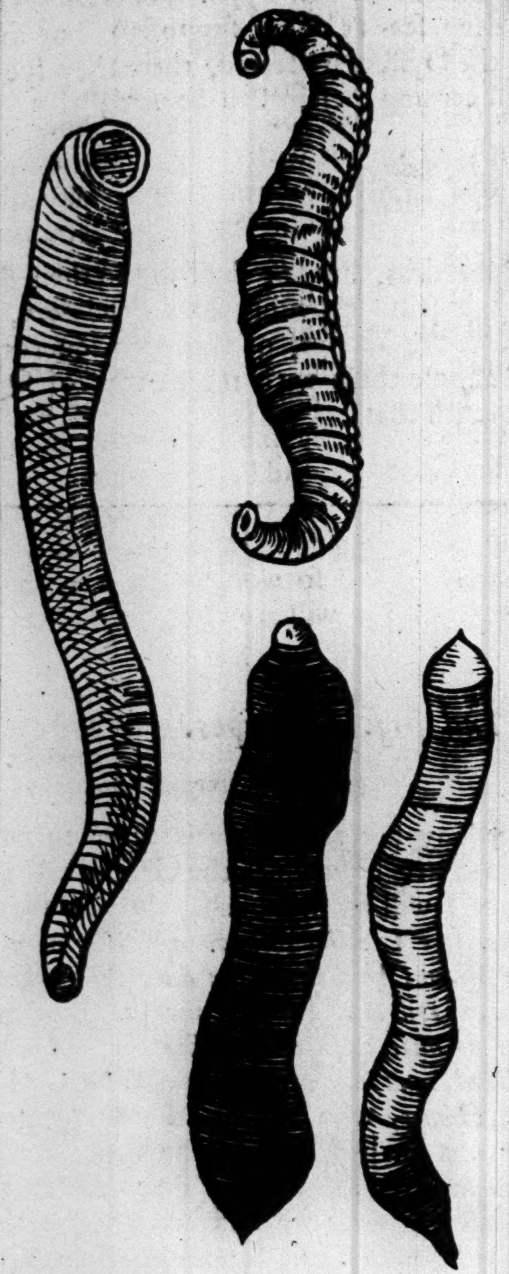
NO Philoſopher that underſtands as he ſhould, will deny but that ſnow is water turned to froth, by long ſubliming in the air. In this Worms are bred which the Greeks call σκνῖπες. *Ariſtotle* writ ſomething concerning theſe, which Hiſtory I will briefly touch. *In ſnow there are bred hairy Worms, very ſluggiſh, and that move ſlowly, wherefore I reckon them amongſt Worms without feet, ſo ſoon as they are taken out of the ſnow they die, as the Worms bred in the fire doe, being taken from thence: with ſnow that is old and begins to look red, they become red alſo, but thoſe that are found in new ſnow are white. It is*, ſaith he, *a certain thing that ſnow can no more corrupt than fire can. And indeed they cannot corrupt, yet in both of them are living Creatures bred, and they are nouriſhed in both.* I cannot in any wiſe conſent to *Euſtathius* the Scholiaſt upon *Homer*, who affirms, that ſnow growes red from *Minium*, becauſe thoſe places are of a Cinnaberous quality, whence he conceives, that from the vapours riſing from Cinnaber, the ſnow becomes red: I will not deny but that it is ſo in ſome places. But whether the Interpreter be pleaſed or not, we muſt needs grant that in ſome places the ſnow grows red, where no Cinnaber is. *Strabo* makes mention of ſuch places in theſe words. In *Charzena* and the Countrey of *Cambicium*, and in places neer to the mountains of *Caucaſus*, ſome little beaſts are bred in the deep ſnow, which *Apollonides* calls σκώληκας, and *Theophanes* σκνῖπας, that is, Mountain little hairy Worms, like unto the greater *Teredines*. I think their generation as admirable, as of the fire Worms; yet living Creatures are more eaſily bred in ſnow, than in fire, becauſe in ſnow there is much air, earth and ſpirit, all which the fire conſumes abundantly. And if the heat of the Sun happen to be with theſe, I ſhall uſe *Scaligers* words, they make dung that ſmells the ſweeteſt of all ordure. Alſo they are bred in abundance in *Carinthia*, as *Joach. Vadianus* reports. But *Strabo* in his Comment upon *Pompon. Mel.* addes a thing that is admirable, ſaying that theſe Worms are full of excellent water, which

Travailers take, by breaking the bladder or coat it is in, and they drink this preſſing it forth gently. For it is very wholſome and ſeaſonable when the fountains are troubled, as it falls out often in great ſnowes.

Chap. XLI.

Of Horſleeches.

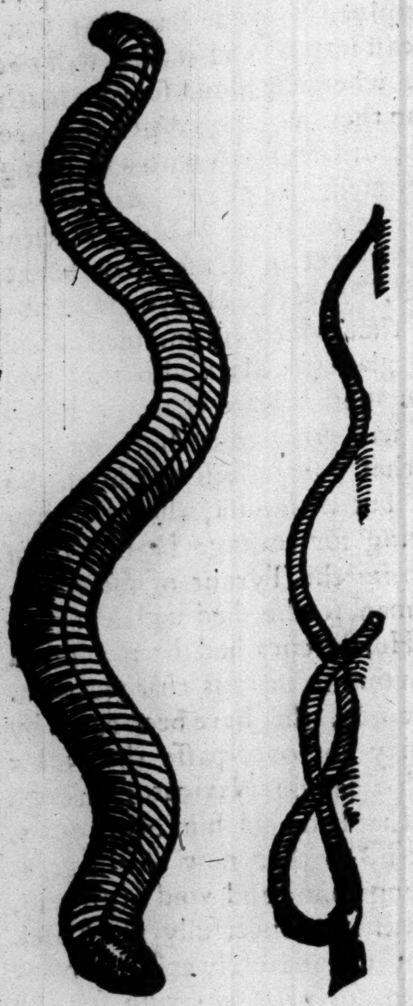
A Blood-ſucker or Horſleech, in Latin *Hirudo*, in Greek βδέλλα, in Hebrew *Halukah*, in French *Sangſue*, in Italian *Sanſuga*, in Spaniſh *Sanguiſuella*, in High-Dutch *Ein agel ſo das blut ſauget*, in Engliſh a *Horſleech*. Theſe are water Worms that thirſt exceedingly after the bloud of living Creatures, and they will fill themſelves with it ſometimes till they burſt and die. Some of them are without any paſſage through their belly, ſome are open behinde; we give you the pictures of them here. *Europe* hath ſcarce any open behinde, but in *America* and *India* they are common. Thoſe that are not open behinde, are obvious to every man, and when they are filled with bloud, their skin ſeems checquer'd with fibres. Some of them are of divers colours, ſome green, black, brown, yet not venomous, only the bright bay and Cheſnut colours, that are like to pills of trees. They breed chiefly in ſtanding pools, where Cattel are wont to be watred, for from their feet earth and foulneſſe are waſhed, and fall to the bottome, to ſay nothing of the ſediment of their dung, out of which, that want not vital heat, living Creatures are bred. Once bred, they moſt greedily thirſt after bloud, and therefore they lie in wait in the very entrance of the pools, that they may light upon Horſes, Oxen, Elephants, *&c.* ſo ſoon as they come to drink for thirſt of cold water. *Pliny* writes, that they are ſo troubleſome to the Elephant, that the beaſt is by their tickling and ſucking in his ſnout, almoſt mad; which doth manifeſtly ſhew the wonderful power of Inſects: For what is there greater then an Elephant? and what is there more contemptible than a Horſleech? Yet the greatneſſe and wit of the Elephant muſt give way and yeeld to this Worm. They feed moſt on bloud of beaſts, and watry bloudy matter; yet when they want ſuſtenance, they fill themſelves with the filth that riſeth from the water. *Pliny* ſaith they vaniſh in the Spring, *l.* 9. *c.* 51. but we ſee that ſeaſon to be moſt fit for the breeding of them. And indeed I can ſee no reaſon, that when they have overcome the Winters cold, they ſhould not be able to ſtand out the Springs mildeneſs. And this we all know, that Horſleeches will die in the Winter, unleſſe they be carefully preſerved in warm water, and fed with bloud very plentifully. If any man ſwallow a Horſleech, ſome perſwade us to drink pickle, others ſnow-water: But *Aſclepiades* bids us firſt to waſh the mouth, and to put a ſoft Sponge wet in cold water into the mouth, that the Horſleech ſticking to the Sponge may be drawn forth. After this he preſcribes the juice of Duck-weed, and to cover the neck with cooling plaiſters. But *Apollonius*, whoſe ſurname was *Mus*, gave the ſharpeſt Vinegar with pickle to drink; but thoſe that gave ſnow, did firſt warm it, and uſed it being diſſolved, and they did uſe meat and drink at fit times to make the belly ſoluble, that they might drive forth the Horſleech, for they report that ſo they will oft-times come forth with the excrements. *Gal. l.* 2 *de Antidotis.* In the dayes of *Pliny*, wicked men did privily give Horſleeches to their enemies to do them miſchief; but Rue with Vinegar, or only Butter, (as againſt all venoms that did exulcerate) were a preſent remedy, *lib.* 20. c. 13. and *lib.* 28. *c.* 10.



Their uſe in phyſick is manifold. For ſome (I uſe *Galens* words, *lib. de different. ſanguinis detrahendi modis*, Tract. 10.) take Horſleeches and put them up, and they uſe them diverſly: For when they are made tame they are eaſily put upon the skin; but thoſe that are taken muſt be kept one day, and muſt be fed with a little bloud; and ſo it will be that whatſoever venome they have in them, they will ſoon caſt forth. But when we have need to uſe them, that part to which you will apply your Leeches muſt be firſt rubbed with Nitre, and muſt be anoynted, and ſcratched with your fingers, that by this means they may faſten the more greedily; but you muſt caſt them into warm water that is contained in a large and a clean veſſel, then you muſt lay hold of them with a Sponge, you muſt cleanſe them with your hand from all filth and dirt, and ſo they will be fit to be applyed. And when you have ſet them on, leſt that part they ſtick to ſhould grow cold, you muſt powr on warm Oyl: But if they be to be applyed to your hands or feet, you muſt thruſt them into the warm water that the Leeches are caſt into. And if they will not hold faſt, you muſt cut off their tails with a pair of Cizzers; for when the bloud ſo runs forth they will not leave off ſucking until you ſprinkle ſalt or aſhes upon their mouth: When they are fallen off, that venemous quality they uſe to leave behinde muſt be drawn forth with a Cupping glaſſe; and if that may not be done, you muſt uſe a Sponge to foment the place. And if yet any bloudy drops run forth, apply meal and Cummin, and then binde on ſome Wooll wet with a little Oyl. But if yet the bloud will not ſtop, lay on a linnen clowt wet in Vinegar, or burnt glaſſe, or a Sponge firſt put into liquid pitch, and afterwards burnt. And this alſo you muſt obſerve, that Leeches draw that bloud that is next the fleſh, and not that which is contained in the Centre of the body. Men uſe them commonly in ſtead of Cupping glaſſes. Mark alſo that you muſt take them off when they have drawn half the bloud. And you muſt beware that the bloud run not forth ſo long, untill it be ſufficient: For the part it ſelf will grow cold, both by reaſon of the Leeches that are naturally cold, and becauſe of the air that compaſſeth us about. So far *Galen*. But *Cardan* bids us not to anoynt the place with Nitre, but with milk, that they may faſten the ſooner; and withall to pinch the Leech cloſe, that ſtriving for revenge he may open the vein, *lib. 7. de rer. var. c.* 28. What help they were to *Dionyſius* the Tyrant of *Heracleota*, we may read in Hiſtories, who repreſenting rather a beaſt than a man, for he died with a mighty great paunch, had been eaten by the Worms long before, unleſſe Horſleeches had been applyed to both his ſides, and drawn forth daily ſome quantity of the humours he was charged with. It were too tedious to reckon up all the melancholique and mad people, that have been cured by applying Leeches to the Hemorrods in their fundaments. Yet I may not over-paſſe the Noble *Richard Cavendiſh*, (the moſt learned Unkle by the fathers ſide of that famous Navigator through the world *Thomas Cavendiſh*) who was perfectly cured of his Gowt that had held him many years, only by applying Horſleeches to the Emrods *in Ano* every moneth, ſo that now to the great wonder of all the Court, he walks alone without any help, and being ſound and void of all pain, he lives an old man. Alſo Horſleeches ſet upon the fundament, will ſo wonderfully pluck back the humours that run from the whole body to the joynts, that they will preſently eaſe the pains like a Charm. This I proved at *Lions* upon an excellent Muſitian, one *Roſolus*; who for the great pains he endured, and by continual waking, fell into a burning Feaver, with raving, in the Dog-dayes, at which time *Hippocrates* ſaith it is dangerous to purge. It is in this caſe ſuch a remedy, that it is to be preferr'd before all others, for they draw from the whole body without any trouble or loſſe of a mans forces. *Jac. Aubert. Exercit.* 50. *progymnaſm. Fernel. Abdit. Godfridus a Cenami*, a *Venetian*, a famous man, and my very great friend, for juſt and lawfull cauſes, who told me that he ſaw one who had the joynt Gowt, who lived many years free of all his pains, only by applying Leeches to the part that was in pain. *Math. de Grad.* and *Savanrola*, *Jacob Dournet*, *Apolog. lib. c.* 3. perſwade the ſame remedy. Alſo *Gilbertus Anglicus* reports, that the Lowſie diſeaſe generally is to be cured with the aſhes of Horſleeches boyled with Storax: For they are not only uſefull for men whileſt they are alive, but when they are dead and burnt to aſhes. *Pliny* reports, *lib.* 32. *c.* 7. that Horſleeches will black ones hair, if they be corrupted in black wine for ſixty dayes: Others bid us take one ſextarius of Leeches, and let them lie to corrupt in two ſextarii of Vinegar, in a leaden veſſel for ſo many dayes, and then to anoynt with them in the Sun. *Sornatius* relates, that this medicament is of ſo great force, that uleſſe they hold Oyl in their mouths that die the hair, it will alſo black their teeth. *Meges* writes, that live Frogs putrefied in Vinegar, will take off the hair, but the aſhes of Leeches anoynted with Vinegar will doe the ſame.

Chap. XLII.

Of Water-worms.



In waters both ſalt and freſh, great and ſmall Worms will breed of putrefaction, eſpecially in Summer, very like Earth-worms, but they want that knot or chain about their necks: Alſo they are by far more ſharp and lean; oft-times they lie in the ſand, and they caſt up earth out of their holes, as Earth-worms do: In ſweet waters that are ſtanding, and not deep, there is found a kinde of Worms of a full red, that reſemble in ſhape the *Teredo* without feet, but that they have greater heads. Their tail is forked, whereby they ſtay themſelves, till lifting up their heads they may finde a place to faſten the reſt of their body, and ſo they creep upon the mud and ſtones, and ſo they move in a brandiſhing manner crookedly. In Summer, when it is clear weather and hot, they come forth together in great numbers, but if the mud move never ſo little they preſently withdraw themſelves. The Engliſh call them *Summer-worms*, either becauſe they are ſeen only in Summer, or they die in Winter. In the *Mediterranean* Sea there is a round Worm found as great as a great Snake, and of the ſame colour, but it hath neither head nor tayl, as *Weckerus* obſerves. Sometimes it is twenty foot long. What may be the uſe or nature of theſe I have not yet obſerved. But I hope that others will diſcover that light that ſhal ſhew us both. Yet this is certain, that thoſe Worms ſerve for baits to catch Fiſh, eſpecially thoſe ſmall red ones, and Fiſher-men diligently ſeek after them for that purpoſe. We call them Water-worms, becauſe as Earth-worms will not live long in water, ſo Water-worms put upon dry land ſoon die, they wanting Air, and theſe for want of water.

FINIS.

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